



VAJIRAM & RAVI

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the RECITALS

Explore Current Affairs Through Q&A



Featured
Articles



Mains
Q & A



Prelims
Q & A

Bridging
Gaps

Union Budget 2021-22

Quad Grouping

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From the Desk of the Director

Dear Students

The preparation of current affairs magazine is an evolutionary process as its nature and content keeps changing according to the demands of Civil Service Exam. As you are aware about the importance of current affairs for the prelims as well as mains exam, our aim is to follow an **integrated approach** covering all stages of examination from prelims to interview. Keeping these things in mind, we, at Vajiram and Ravi Institute, are always in the process of evolving our self so as to help aspirants counter the challenges put forward by UPSC.

In fulfillment of our objective and commitment towards the students, we have introduced some changes in our current affairs magazine. The CA Magazines, now with the name of “**The Recitals**”, will have four sections. These are:

1. **Feature Article:** As you are aware of the fact that civil service mains exam has become quite exhaustive and analytical, especially since 2013 after the change in syllabus, we have decided to focus on 2-3 topics every month that will provide an insight into the issue so as to help students understand the core of the issue. This will help in Essay writing as well as Mains Exam.
2. **Mains Q&A:** New students quite often struggle to find out that in what way the given topic is useful for them and in what form questions can be framed from the article. To help those students, we at Vajiram and Ravi have designed an innovative way to teach current affairs. Now, we will cover the current issues through questions and answers so as to make it more targeted towards exam. This will not just provide the information and analysis on current issues but will also help in learning the art of answer writing. Further the related information on the topics on which questions have been framed but that is outside the purview of answer will be given in the Box as ‘**Extra Mile**’.
3. **Prelims Q&A:** This section will contain prelims based MCQs that will test your diligence while reading the current issues. These MCQs will be of UPSC standard and will contain detailed explanation. Students are advised to attempt these MCQs honestly and read the Explanation carefully. The idea is to also provide students with a question bank of around 600 current affairs MCQs (50 Qs × 12 months = 600 Qs) just before their prelims examination, which will act as revision on issues spanning over the entire year.
4. **Bridging Gaps:** This section will contain miscellaneous topics which has not been covered through Q&A. That is why it is called Bridging Gaps, meaning the left-over topics.

So, the new magazine is a complete overhaul of what we have been doing for so long. We hope that the new beginning will be to the liking of students.

Thanks

Best Wishes

Union Budget 2021-22

The Union Minister for Finance & Corporate Affairs recently presented the Union Budget 2021-22 in the Parliament which is the first budget of this new decade and also a digital one in the backdrop of unprecedented COVID-19 crisis. Laying a vision for Aatma Nirbhar Bharat, the Budget proposals will further strengthen the Sankalp (resolve) of Nation First, Doubling Farmer's Income, Strong Infrastructure, Healthy India, Good Governance, Opportunities for youth, Education for All, Women Empowerment, and Inclusive Development among others.

Pillars Of The Budget

The Budget proposals for 2021-22 rest on 6 pillars:

- Health and Wellbeing
- Physical & Financial Capital, and Infrastructure
- Inclusive Development for Aspirational India
- Reinvigorating Human Capital
- Innovation and R&D
- Minimum Government and Maximum Governance

We will see each one of them now-

I. HEALTH AND WELLBEING PILLAR

- Health & Wellbeing have formed the topmost priority of the government during the ongoing COVID health crisis. Thus, it is the foremost of the six crucial pillars that form foundation of the Union Budget.
- The **Budget allocation for Health and Wellbeing** has been increased to Rs 2,23,846 crore in Budget Estimate (BE) 2021-22 from this year's (2020-21) BE of Rs 94,452 crore. This translates into a sharp increase of 137 %.
- Additionally, the Budget has brought a holistic approach to health as it has focused on strengthening three areas: **Preventive, Curative, and Wellbeing.**

PM AatmaNirbhar Swasth Bharat Yojana (PMASBY)

- A new centrally sponsored scheme, PMASBY, will be launched with an outlay of about Rs 64,180 crore over 6 years. This will be in addition to National Health Mission.
- PMASBY will develop capacities of primary, secondary, and tertiary care health systems, strengthen existing national institutions, and create new institutions, to deal with new and emerging diseases.
- Interventions Under PMASBY is shown in box beside

PM AatmaNirbhar Swasth Bharat Yojana

A new Centrally Sponsored Scheme with an outlay of about ₹ 64,180 crore, over 6 years

Main Interventions :

- Support for 17,788 rural and 11,024 urban Health and Wellness Centers
- Setting up of :**
- Integrated public health labs in all districts and 3382 block public health units in 11 states
- Critical care hospital blocks in 602 districts and 12 central institutions
- 15 Health Emergency Operation Centers and 2 mobile hospitals
- A national institution for One Health, a Regional Research Platform for WHO South East Asia Region, 9 Bio-Safety Level III laboratories and 4 regional National Institutes for Virology
- Strengthening of the National Centre for Disease Control (NCDC), its 5 regional branches and 20 metropolitan health surveillance units
- Expansion of the Integrated Health Information Portal to all States/UTs to connect all public health labs
- Operationalisation of 17 new Public Health Units and strengthening of 33 existing Public Health Units at Points of Entry, that is at 32 Airports, 11 Seaports and 7 land crossings

Enhance Nutrition Levels

- Nutrition has been highlighted as an integral component of the country's health and wellbeing.
- To strengthen nutritional content, delivery, outreach, and outcome, the Union Budget has proposed **merger of the Supplementary Nutrition Programme and the Poshan Abhiyan**. These will form the umbrella of Mission Poshan 2.0.
- Further, an intensified strategy to improve nutritional outcomes across 112 Aspirational Districts has been proposed in the budget.
- **Poshan Abhiyaan** is the government's flagship program to improve nutritional outcomes for children, pregnant women and lactating mothers, with specific targets to be achieved by 2022.
- **Supplementary Nutrition Programme (SNP)** is the main component of Integrated Child Development Services (ICDS).
- Under the programme supplementary nutrition is given to the children (6 months – 6 years) and pregnant and lactating mothers to improve their health and nutritional status.

Allocation for Vaccines

- Rs. 35,000 crore have been allocated for COVID-19 vaccine in BE 2021-22.
- In addition, the **Pneumococcal Vaccine**, which is made in India, will be delivered across the country, to avoid more than 50,000 deaths annually. At present, the Pneumococcal Vaccine is available only in 5 states.

Measures For Water, Sanitation And Environment

Noting that the World Health Organisation has repeatedly stressed on the importance of clean water, sanitation, and clean environment, to achieve universal health, the Budget has made significant allocation to these sectors.

1. Jal Jeevan Mission (Urban)

- The Budget has announced the launch of the Jal Jeevan Mission (Urban). The Mission aims at universal water supply in all 4,378 Urban Local Bodies with 2.86 crore household tap connections.
- It will also focus on liquid waste management in 500 AMRUT cities.
- It will be implemented over 5 years, with an outlay of Rs 2,87,000 crore.

2. Urban Swachh Bharat Mission 2.0

- To further improve the cleanliness of urban areas, the Urban Swachh Bharat Mission 2.0 will be implemented with a total financial allocation of Rs 1,41,678 crore over a period of 5 years from 2021-2026.
- Main interventions under the Mission are:
 - Complete faecal sludge management and waste water treatment.
 - Separation of garbage at source.
 - Reduction in single-use plastic.
 - Reduction in air pollution by effectively managing waste from construction-and-demolition activities.

- Bio-remediation of all legacy dump sites.

3. Clean air

To deal with the problem of air pollution, the Budget has allocated an amount of Rs 2,217 crore for 42 urban centres with a million-plus population.

4. Vehicle Scrapping Policy

- A voluntary vehicle scrapping policy has been announced to phase out old and unfit vehicles.
- Vehicles would undergo fitness tests in automated fitness centres – after 20 years in case of personal vehicles, and after 15 years in case of commercial vehicles.
- This will help in encouraging fuel-efficient, environment friendly vehicles, and reduce vehicular pollution and oil import bill.

II. PHYSICAL AND FINANCIAL CAPITAL AND INFRASTRUCTURE PILLAR

The Budget has announced a series of measures as follows under the Physical and Financial Capital and Infrastructure pillar.

AatmaNirbhar Bharat- PLI Scheme

- For a USD 5 trillion economy, India's manufacturing sector has to grow in double digits on a sustained basis. Moreover, India's manufacturing companies need to become an integral part of global supply chains and should have core competencies and cutting-edge technology.
- To achieve the above-mentioned goals, PLI schemes have been announced for 13 sectors to **create manufacturing global champions** for an AatmaNirbhar Bharat.
- For this, the government has allocated Rs.1.97 lakh crore over the next 5 years, starting from FY 2021-22.
- This initiative will help to increase scale and size in key sectors, create and nurture global champions and provide jobs to youth.

Mega Investment Textiles Parks (MITRA)

- In addition to the PLI scheme, a scheme of **Mega Investment Textiles Parks** (MITRA) will be launched for the textile industry. Under the scheme, **7 Textile Parks** will be established over 3 years.
- It will help to develop world class infrastructure to enable creation of global champions in exports.
- The scheme will enable the textile industry to become globally competitive, attract large investments and boost employment generation.



National Infrastructure Pipeline (NIP)

- The NIP, launched with 6835 projects, has now expanded to 7,400 projects.

- Around 217 projects worth 1.10 lakh crores under some key infrastructure Ministries have been completed.
- The Budget announced the following three measures to increase funding for NIP:
 1. Creation of institutional structures.
 2. Increasing focus on monetizing assets.
 3. Enhancing the share of capital expenditure in central and state budgets

Let's see each one of three below --

1. Creation of Institutional Structures: Infrastructure Financing

- Infrastructure needs long term debt financing. A professionally managed Development Financial Institution is necessary to act as a provider and enabler for infrastructure financing.
- Accordingly, the Budget informed that a Bill will be introduced in the Parliament to set up a **Development Financial Institution (DFI)**.
- The government has provided a sum of Rs 20,000 crore to capitalise the DFI and the aim is to have a lending portfolio of at least Rs 5 lakh crore for this DFI in three years.
- Debt financing of InVITs and REITs by Foreign Portfolio Investors will be enabled by making suitable amendments in the relevant legislations.
- This will further ease access of finance to InVITs and REITs and increase funds for infrastructure and real estate sectors.

2. Asset Monetisation

- Monetizing operating public infrastructure assets is a very important financing option for new infrastructure construction.
- The Budget proposed that a **National Monetization Pipeline** will be launched to monetize public infrastructure assets.
- An **Asset Monetization dashboard** will also be created for tracking the progress and to provide visibility to investors.
- Other Asset monetization measures:
 - Railways will monetize Dedicated Freight Corridor assets for operations and maintenance.
 - Next lot of airports will be monetized for operations.
 - Oil and Gas Pipelines of GAIL, IOCL and HPCL, sports stadiums and warehousing assets of Central Public Sector Enterprises (CPSEs) will also be monetized.

3. Increase in Capital Expenditure

- The Budget has provided Rs 5.54 lakh crores for capital expenditure in 2021-22, which is a sharp increase of 34.5% from 2020-21.
- In addition to this, Rs 2 lakh crores has been provided to State and Autonomous Bodies for their capital expenditure.

- Over Rs. 44,000 crore has been kept for Department of Economic Affairs to contribute to projects/programmes/departments that show good progress on Capital Expenditure and are in need of further funds.
- Capital expenditure leads to the creation of assets are long-term in nature and allow the economy to generate revenue for many years by adding or improving production facilities and boosting operational efficiency.

Measures For Roads and Highways Infrastructure

- The Budget provided an enhanced allocation of Rs. 1,18,101 lakh crore (the highest ever) for Ministry of Road Transport and Highways. Out of the total allocation, Rs. 1,08,230 crore is for capital expenditure.
- More than 13,000 km roads, at a cost of 3.3 lakh crores, have already been awarded under the Bharatmala Pariyojana project, of which 3,800 kms have been constructed.
- By March 2022, another 8,500 kms would be awarded. Additional 11,000 kms of national highway corridors would be completed by March 2022.
- To further increase road infrastructure, more economic corridors are also being planned.

Measures For Railway Infrastructure

- The Budget provided a record sum of Rs. 1,10,055 crore, for Railways of which Rs. 1,07,100 crore is for capital expenditure.
- Indian Railways have prepared a **National Rail Plan for India – 2030**. The Plan is to create a 'future ready' Railway system by 2030.
- The plan also aims to increase the share of rail in freight from the current level of 27 % to 45 %.
- Western Dedicated Freight Corridor (DFC) and Eastern DFC will be commissioned by June 2022, to bring down the logistic costs.
- 100% electrification of Broad-Gauge routes will be completed by December, 2023.
- Aesthetically designed Vista Dome Linke Hofmann Busch (LHB) coaches will be introduced on tourist routes for better travel experience.
- High density network and highly utilized network routes will be provided an indigenously developed automatic train protection system, to eliminate train collision due to human error.

Measures for Urban Infrastructure

- Government will work towards raising the share of public transport in urban areas through expansion of metro rail network and increase of city bus services.
- Two new technologies i.e., **MetroLite** and **MetroNeo** will be deployed to provide metro rail systems at much lesser cost with same experience, convenience and safety in Tier-2 cities and peripheral areas of Tier-1 cities.
- A new scheme will be launched at a cost of Rs. 18,000 crore to support increase of public bus transport services.
- The scheme will facilitate innovative Public Private Partnership models to enable private sector players to finance, acquire, operate and maintain over 20,000 buses.

- The scheme will boost the automobile sector, create employment opportunities and enhance ease of mobility for urban residents.

Measures for Power Infrastructure

- The Distribution Companies (DISCOMS) across the country are monopolies, either government or private. There is a need to provide choice to consumers by promoting competition.
- To address this issue, a framework will be put in place to give consumers alternatives to choose the Distribution Company.
- The Budget also underlined that the viability of Distribution Companies is a serious concern.
- Thus, the Budget proposed a reforms-based result-linked power distribution sector scheme with an outlay of Rs. 3,05,984 crore over 5 years.
- The scheme will provide assistance to DISCOMS for infrastructure creation including pre-paid smart metering and feeder separation, upgradation of systems, etc.
- For a green and sustainable future, a comprehensive **National Hydrogen Energy Mission** will be launched in 2021-22 for generating Hydrogen from green power sources.

Measures for Ports, Shipping and Waterways

- Major Ports will be moving from managing their operational services on their own to a model where a private partner will manage it for them.
- For this, 7 projects worth more than Rs 2,000 crores will be offered by Major Ports on Public Private Partnership mode in FY21-22.
- A scheme to promote merchant ships in India will be launched by providing subsidy support to Indian shipping companies in global tenders by Ministries and Central Public Sector Enterprises.
- For this, an amount of Rs 1624 crores will be provided over 5 years. The initiative will enable greater training and employment opportunities for Indian seafarers and enhance the share of Indian companies in global shipping.
- Ship recycling capacity of around 4.5 Million Light Displacement Tonne (LDT) will be doubled by 2024. This is expected to generate an additional 1.5 lakh jobs.

Measures for Petroleum & Natural Gas

- **Ujjwala Scheme** which has benefited 8 crores households will be extended to cover additional 1 crore beneficiaries. The scheme provides LPG connections to women of BPL families.
- The government will add 100 more districts in next 3 years to the City Gas Distribution network.
- A gas pipeline project will be taken up in Union Territory of Jammu & Kashmir.
- An Independent **Gas Transport System Operator** will be set up for facilitation and coordination of booking in all-natural gas pipelines.

Measures to Boost Financial Capital

- The Budget has proposed to consolidate the provisions of SEBI Act, 1992, Depositories Act, 1996, Securities Contracts (Regulation) Act, 1956 and Government Securities Act, 2007 into a single **Securities Markets Code**.

- The government would support the development of a world class Fin-Tech hub at the GIFT-International Financial Services Centre (IFSC).
- **Warehousing Development and Regulatory Authority** will be strengthened to set up a commodity market eco system arrangement.
- The Budget proposed to create a new permanent institutional framework to support the development of Bond market in the country. The proposed body would purchase investment grade debt securities both in stressed and normal times.
- The Budget proposed to introduce **an investor charter** for investor protection, across all financial products.

FDI in Insurance Sector

- The Budget proposed to amend the Insurance Act, 1938 to increase the FDI limit from 49% to 74% in Insurance Companies and allow foreign ownership and control with safeguards.
- Under the new structure, the majority of Directors on the Board and key management persons would be resident Indians, with at least 50% of Directors being Independent Directors.

Measures For The Banking Sector

- An **Asset Reconstruction Company** and **Asset Management Company** would be set up to consolidate and take over the existing stressed debts in banks. The assets will be sold to Alternate Investment Funds and other potential investors for value realization.
- To further consolidate the financial capacity of PSBs, **further recapitalization of Rs 20,000 crores** is proposed in 2021-22.
- Last year, government had approved an increase in the Deposit Insurance cover from RS 1 lakh to Rs 5 lakhs for bank customers.

Measures Related To Company Matters

- The Budget proposed promotion of start-ups and innovators by incentivizing the incorporation of **One Person Companies (OPCs)**.
- The Budget also proposed to allow Non Resident Indians (NRIs) to incorporate OPCs in India.
- To ensure faster resolution of cases, National Company Law Tribunal (NCLT) framework will be strengthened and e-Courts system shall be implemented.
- In 2021-22, the government will launch data analytics, artificial intelligence, machine learning driven MCA21 Version 3.0. The new version will have additional modules for e-scrutiny, e-Adjudication, e-Consultation and Compliance Management.
- **MCA21** is an e-Governance initiative of Ministry of Corporate Affairs (MCA), that enables an easy and secure access of the MCA services to the corporate entities, professionals and citizens of India.

Disinvestment and Strategic Sale

- Disinvestments in Air India, Shipping Corporation of India, Container Corporation of India, IDBI Bank, BEML, Pawan Hans, among others would be completed in 2021-22.
- Other than IDBI Bank, the Budget proposed the privatization of two Public Sector Banks and one General Insurance company in the year 2021-22.

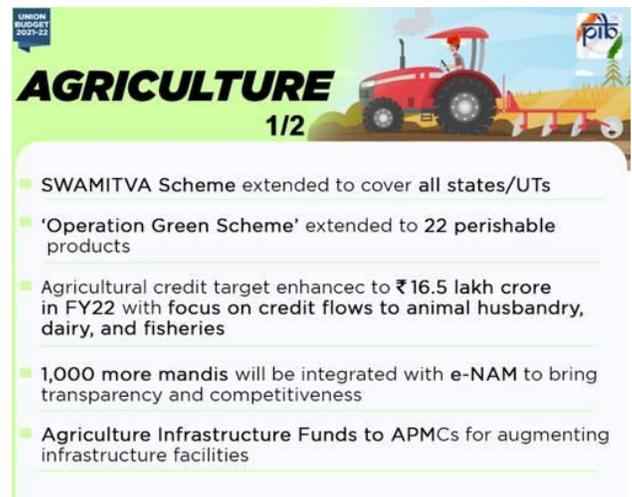
- In 2021-22, the government would also come up with the Initial Public Offering (IPO) of Life Insurance Corporation (LIC).
- States will be incentivised to disinvest their Public Sector Companies. An incentive package of Central Funds will be worked out for them.
- A Special Purpose Vehicle will be formed to monetize idle land of government ministries and public sector enterprises.

III. INCLUSIVE DEVELOPMENT FOR ASPIRATIONAL INDIA PILLAR

Under the pillar of Inclusive Development for Aspirational India, the Budget covered agriculture and allied sectors, farmers' welfare, migrant workers and labourers, and financial inclusion.

SWAMITVA Scheme

- The Budget proposed to extend the SWAMITVA Scheme to cover all States and UTs during fiscal year 2021-22.
- SWAMITVA scheme was launched last year to provide 'record of rights' to village household owners in rural areas and issue property cards.
- These cards are physical copies of property titles of the villagers' homes and the area surrounding their respective houses (as opposed to cultivated land).
- During the pilot phase, the scheme is being implemented in 9 States viz. Uttar Pradesh, Uttarakhand, Madhya Pradesh, Haryana, Maharashtra, Karnataka, Punjab, Rajasthan and Andhra Pradesh.



Enhanced Agricultural Credit

- To provide adequate credit to farmers, the Budget has enhanced the agricultural credit target to Rs 16.5 lakh crore in FY 2021-22.
- Moreover, the government will focus on ensuring increased credit flows to animal husbandry, dairy, and fisheries.

Increase in RIDF and MIF

- The Budget has increased the allocation to the **Rural Infrastructure Development Fund** from Rs 30,000 crore to Rs 40,000 crore.
- The main aim of RIDF is to provide loans to state governments to enable them to complete ongoing rural infrastructure projects.
- RIDF is maintained by the National Bank for Agriculture and Rural Development (NABARD).
- The **Micro Irrigation Fund** started with a corpus of Rs 5,000 crore under NABARD, will be doubled by adding another Rs 5,000 crore to the fund.

- The objective of the fund is to facilitate states in mobilizing resources for expanding coverage of micro irrigation.

Access to AIF

- As per the Budget proposal, the Agricultural Produce Market Committees (APMCs) will be able to access the Agriculture Infrastructure Fund (AIF) to improve their infrastructure facilities.
- AIF provides a medium - long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community farming assets through interest subvention and financial support.

Expansion of Operation Green Scheme

- To boost value addition in agriculture and allied products and their exports, the Budget proposed to increase the scope of 'Operation Green Scheme' to include 22 perishable products.
- The scheme is presently applicable to tomatoes, onions, and potatoes.
- The aim of the scheme is to stabilise the prices of the crops covered under it, by providing 50% subsidy for transportation of crops from farms to storage centres.

Integration of Mandis under e-NAM

- At present around 1.68 crore farmers are registered and Rs 1.14 lakh crore of trade value has been carried out through e-NAM (National Agriculture Market).
- e-NAM has significantly helped to improve the transparency and competitiveness in the agricultural market.
- Due to this, the Budget has proposed to integrate 1,000 more mandis with e-NAM to enhance transparency and competitiveness.

Multipurpose Seaweed Park

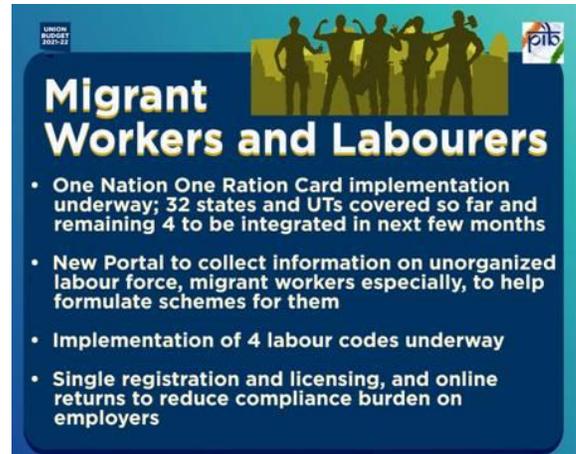
- Recognising the potential in seaweed farming, the Budget said that it is an emerging sector with potential to transform the lives of coastal communities, by providing large scale employment and additional incomes.
- To promote seaweed cultivation, the Budget proposed a **Multipurpose Seaweed Park** to be established in Tamil Nadu.

Fisheries Sector

- The Budget proposed substantial investments in the development of modern fishing harbours and fish landing centres.
- To start with, 5 major fishing harbours – Kochi, Chennai, Visakhapatnam, Paradip, and Petuaghat – will be developed as hubs of economic activity.
- The Budget also proposed to develop inland fishing harbours and fish-landing centres along the banks of rivers and waterways.
- Fishing harbours and landing centres are the initial centres of fish handling.

Measures For Migrant Workers And Labourers

- The Budget laid emphasis on the implementation of **One Nation One Ration Card** and **Labour Codes** and also announced a **portal** to collect the information of the unorganized workforce.
- The government has launched the One Nation One Ration Card scheme through which beneficiaries can claim their rations anywhere in the country. One Nation One Ration Card plan is under implementation by 32 states and UTs, reaching about 69 crore beneficiaries, which covers a total of 86% beneficiaries.
- To address the issues faced by the unorganised labour force, especially the migrant workers, the Budget proposed the launch of a portal. The portal will collect relevant information on gig, building and construction-workers among others. The portal will help to formulate health, housing, skill, insurance, credit, and food schemes for migrant workers.
- The Budget proposed to conclude the process of implementation of the four labour codes.
- After the implementation of the labour code, for the first time globally, social security benefits will extend to gig and platform workers.
- Minimum wages will apply to all categories of workers, and they will all be covered by the Employees State Insurance Corporation.
- Women will be allowed to work in all categories and also in the night-shifts with adequate protection.
- At the same time, compliance burden on employers will be reduced with single registration and licensing, and online returns.



Measures For Financial Inclusion

- To further facilitate credit flow under the scheme of Stand-Up India for SCs, STs, and women, the Budget proposed to reduce the margin money requirement from 25% to 15%.
- Margin money is the amount of funds that the loan applicant must contribute from his/her end.
- Further, loans for allied agricultural activities will also be included under Stand Up India scheme. Stand-Up India scheme was launched to support entrepreneurship among women and SC & ST communities by giving them loans.
- The budget allocation for MSME sector has been increased to Rs. 15,700 crore, which is more than double the allocation of this year's (2020-21) allocation.

IV. REINVIGORATING HUMAN CAPITAL PILLAR

Under the fourth pillar of 'Reinvigorating Human Capital' the Budget covers areas of Education, Skilling and Welfare of Scheduled Castes and Scheduled Tribes.

Measures for Education

- More than 15,000 schools will be qualitatively strengthened to include all components of the National Education Policy (NEP). This will enable them to emerge as model schools in their regions and mentor other schools to achieve the ideals of the policy.
- The Budget also announced that 100 new Sainik Schools will be set up in partnership with NGOs/private schools/states.
- The Budget proposed to set up a **Higher Education Commission of India**, as an umbrella body having 4 separate vehicles for standard-setting, accreditation, regulation, and funding.
- Many cities in the country have various research institutions, universities, and colleges supported by the Union government. Hyderabad, for example, has about 40 such major institutions.
- Formal umbrella structures will be created in 9 such cities, so that these institutions can have better synergy (cooperation), while maintaining their internal autonomy (independence). A **Glue Grant** will be set aside for this purpose.
- For accessible higher education in Ladakh, the government has proposed to set up a Central University in Leh.



Measures for SC/ST Welfare

- Government has set a target of establishing **750 Eklavya Model Residential Schools (EMRS)** in tribal areas. Further, the Budget has increased the unit cost of each such school from Rs. 20 crore to Rs. 38 crore, and for hilly and difficult areas, to Rs. 48 crore. This would help in creating strong infrastructure facilities for the tribal students.
- EMRS started in the year 1997-98 to give quality education to ST children in remote areas in order to enable them to access opportunities in high and professional educational courses and get employment in various sectors.
- Central assistance under **Post Matric Scholarship Scheme, for the welfare of Scheduled Castes** has been increased.
- A total of Rs 35,219 crore for 6 years till 2025-2026 has been allocated, which will benefit 4 crore SC students.

Measures to Improve Skilling

- The Budget proposed **amendments to the Apprenticeship Act** to increase apprenticeship opportunities for the youth.

- An amount of Rs 3,000 crore has been allocated to realign the existing scheme of **National Apprenticeship Training Scheme** (NATS) for providing post-education apprenticeship, training of graduates and diploma holders in engineering.
- An initiative is already ongoing with the United Arab Emirates (UAE) to benchmark skill qualifications, assessment and certification.
- Similarly, a collaborative Training Inter Training Programme (TITP) between India and Japan is going on to facilitate transfer of Japanese industrial and vocational skills, technique, and knowledge.
- Such initiatives will be taken forward with many more countries.

V. INNOVATION AND R&D PILLAR

- The **National Research Foundation** (NRF) announced in the July 2019 Budget, has been given an outlay of Rs. 50,000 crore, over 5 years.
- It will ensure that the overall research ecosystem of the country is strengthened with focus on identified national-priority thrust areas.
- The government will undertake a new initiative – **National Language Translation Mission** (NTLM). This will enable governance-and-policy related knowledge on the Internet being made available in major Indian languages.
- The New Space India Limited (NSIL), a PSU under the Department of Space will execute the PSLV-CS51 launch, carrying the Amazonia Satellite from Brazil, along with a few smaller Indian satellites.
- As part of the **Gaganyaan mission** activities, four Indian astronauts are being trained on Generic Space Flight aspects, in Russia. The first unmanned launch is slated for December 2021.
- A **Deep Ocean Mission** will be launched with a budget outlay of more than Rs 4,000 crores, over five years. This Mission will cover deep ocean survey exploration and projects for the conservation of deep sea bio-diversity
- There has been a manifold increase in digital payments in the recent past. To give a further boost to digital transactions, the Budget has earmarked Rs 1,500 crores for a proposed scheme that will provide financial incentive to promote digital modes of payment.

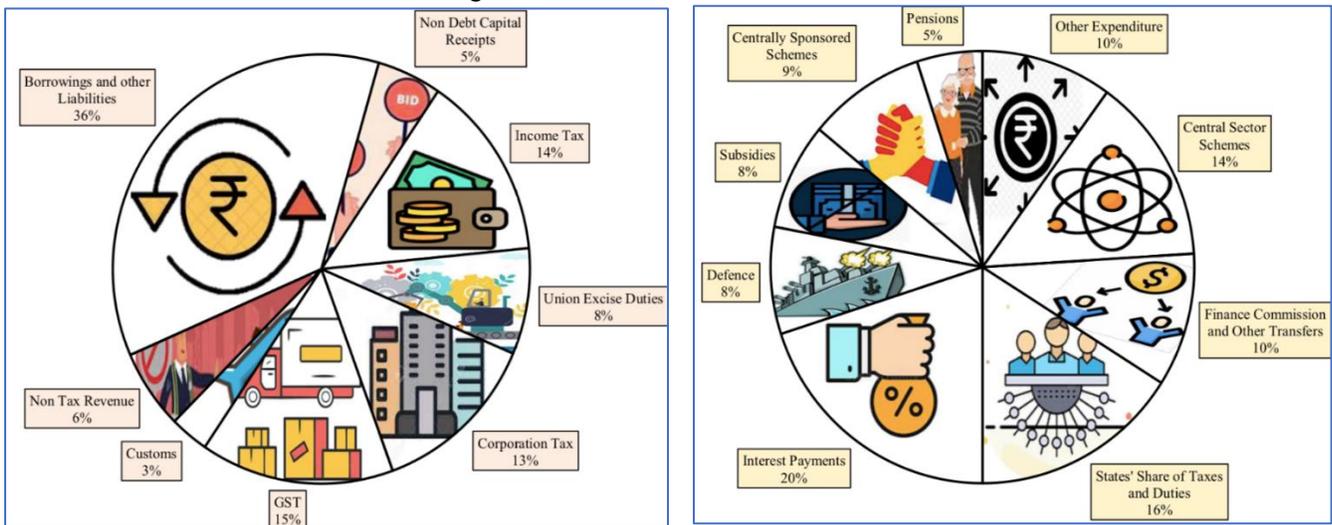
VI. MINIMUM GOVERNMENT, MAXIMUM GOVERNANCE PILLAR

- The budget shared that a number of reforms have been undertaken in tribunals in the last few years for speedy delivery of justice. It further proposed further measures to rationalise the functioning of tribunals.
- The **National Commission for Allied Healthcare Professionals Bill** has been introduced in the Parliament, to ensure transparent and efficient regulation of the 56 allied healthcare professions.
- Additionally, to bring about transparency, efficiency and governance reforms in the nursing profession, **The National Nursing and Midwifery Commission Bill** will be introduced in the Parliament.

- To improve ease of doing business for those who deal with Government or CPSEs, the Budget proposed to set up a **Conciliation Mechanism** for quick resolution of contractual disputes. This will instil confidence in private investors and contractors.
- The forthcoming Census could be the first digital census in the history of India. For this monumental task, the Budget allocated Rs 3,768 crores in the year 2021-2022.

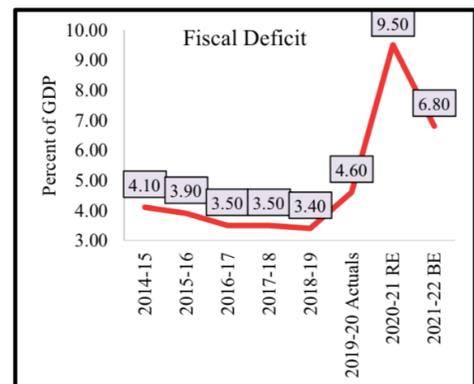
FISCAL POSITION

- On fiscal position, the Budget underlined that the pandemic’s impact on the economy resulted in a weak revenue inflow.
- Once the health situation stabilised, and the lockdown was being slowly lifted, government spending was ramped up to revive domestic demand.
- As a result, against an original BE expenditure of Rs. 30.42 lakh crore for 2020-2021, RE estimates are Rs. 34.50 lakh crore.
- The quality of expenditure has been maintained as Capital Expenditure estimated as per RE is Rs. 4.39 lakh crore in 2020-2021 as against Rs. 4.12 lakh crore in BE 2020-21.



Fiscal Deficit

- Fiscal deficit in RE 2020-21 is pegged at 9.5% of GDP and has been funded through government borrowings, multilateral borrowings, Small Saving Funds and short term borrowings.
- The government would need another Rs 80,000 crore for which it would be approaching the markets in the next 2 months.
- The fiscal deficit in BE 2021-2022 is estimated to be 6.8% of GDP. The gross borrowing from the market for the next year would be around 12 lakh crore.



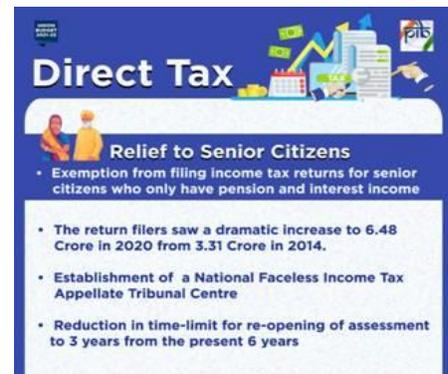
- The government plans to continue the path of fiscal consolidation, and aims to reach a fiscal deficit level below 4.5% of GDP by 2025-2026.
- The fiscal consolidation will be achieved by increasing the buoyancy of tax revenue through improved compliance, and secondly, by increased receipts from monetisation of assets, including Public Sector Enterprises and land.

Fiscal Plan of States

- States are expected to reach a fiscal deficit of 3% of GSDP by 2023-24, as recommended by the 15th Finance Commission (FC).
- As per the recommendation of the the 15th FC, net borrowing for the states is allowed at 4% of GSDP for the year 2021-2022.
- An additional borrowing ceiling of 0.5% of GSDP will be provided subject to conditions.

Direct Tax proposals

- Post-pandemic, a new world order seems to be emerging. In this scenario, the country's tax system has to be transparent, efficient and should promote investment and employment in the country.
- At the same time, it should put minimum burden on the tax payers. In keeping with these goals the budget made the following proposals:
- Reduced compliance burden for senior citizens over 75 years of age. Such senior citizens having only pension and interest income will be exempted from filing their income tax return.
- Dividend payment to REIT/InvIT exempt from TDS.
- Deduction of tax on dividend income at lower treaty rate, for Foreign Portfolio Investors.
- Housing for All
 - Additional deduction of interest, up to Rs. 1.5 lakh, for loan taken to buy an affordable house extended for loans taken till March 2022.
 - Extension of eligibility period for claiming tax holiday for affordable housing projects by one more year to 31st March, 2022.
 - For promoting supply of affordable rental housing for the migrant workers, the Budget announced a new tax exemption for the notified affordable rental housing projects.
- Incentives For Start Ups
 - In order to incentivize start-ups in the country, the Budget announced extension in the eligibility for claiming tax holiday for start-ups by one more year till 31st March, 2022.
 - In order to incentivize funding of start-ups, capital gains exemption for investment in start-ups has been extended by one more year till 31st March, 2022.



Indirect Tax Proposals

- On the issue of Indirect Tax proposals, record GST collections have been made in the last few months. Several measures have been taken to further simplify the GST.
- Deep analytics and artificial intelligence have been deployed to identify tax evaders and fake billers, launching special drives against them.
- Going further, every possible measure shall be taken to smoothen the GST further and remove anomalies such as the inverted duty structure.

Custom Duty Rationalization

- With respect to the custom duty policy, the twin objectives are promoting domestic manufacturing and helping India to get on to global value chain and export better.
- The thrust now has to be on easy access to raw materials and exports of value added products.
- In this regard, revised, distortion-free customs duty structure will be put in place from 1st October 2021 by reviewing more than 400 old exemptions.
- New customs duty exemptions to have validity up to the 31st March following two years from its issue date.
- To complete customs investigation, definite time-lines are being prescribed.
- The Budget also shared that the Turant Custom Initiative rolled out in 2020 has brought in faceless, paperless, and contactless customs measures.
- Moreover, from September 2020, a new procedure for administration of Rules of Origin has been implemented, which has helped in putting a check on misuse of FTAs.

Miscellaneous Indirect Tax Proposals

- A phased manufacturing plan for solar cells and solar panels will be notified to build up domestic capacity.
- There is immense potential in manufacturing heavy capital equipment domestically and the rate structure will be comprehensively reviewed in due course.
- To benefit farmers, the Budget announced raising custom duty on cotton, raw silk and silk yarn.
- It also proposed an Agriculture Infrastructure and Development Cess on a small number of items.

Dispute Reduction

- In order to reduce compliance burden, the Budget provided reduction in the time-limit for reopening of income tax proceeding for three years from the present six years.
- In serious tax evasion cases, with evidence of concealment of income of Rs 50 lakh or more in a year, to be re-opened only up to 10 years, with approval of the Principal Chief Commissioner.
- To further reduce litigation of small tax payers, it proposed to constitute a Dispute Resolution Committee. Anyone with a taxable income upto Rs. 50 lakh and disputed income upto Rs. 10 lakh shall be eligible to approach the Committee.
- It also announced setting up of a **National Faceless Income Tax Appellate Tribunal Centre**.

QUAD Grouping

The **Quadrilateral Security Dialogue** or Quad held its third ministerial meeting to discuss practical cooperation for maintaining a free, open and inclusive Indo-Pacific. It was held in virtual mode. This was the third meeting of the **foreign ministers of this group** that includes India, Australia, Japan and the US. The **first meeting** was organized in 2019 in New York.

Key Highlights

- Their discussions on regional issues included a reiteration of their common vision for a free, open and inclusive Indo-Pacific region, with clear support for **ASEAN cohesion and centrality**.
- The participating leaders discussed ongoing efforts to combat the pandemic, including vaccination programmes. They also resolved to cooperate in addressing this challenge, enhancing access to affordable vaccines, medicines and medical equipment.
- They also exchanged views on responding to climate change and furthering cooperation in areas such as maritime security, HADR, supply chain resilience and counter-terrorism.

What Is Quad Grouping

- The grouping of **four democracies –India, Australia, US and Japan–** is known as the quadrilateral security dialogue or quad.
- The aim of this grouping is to **ensure a free and open international order based on the rule of law in the Indo-Pacific**.
- It was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, due to Chinese resistance and reluctance shown by India, it could not move ahead.
- Later, **during the 2017 ASEAN Summits**, all four former members re-joined negotiations to revive the quadrilateral alliance. The Quad was **upgraded to the ministerial level in September 2019**.
- In November 2020, the navies of Australia, India, Japan and the United States held their biggest naval drills. It was the **first time since 2007** that all members of Quad will participate in a joint military drill.

Quad Countries and China

- **USA** – Due to the growing regional competition between Beijing and Washington, USA is moving in all directions to make allies to contain China's rise. **US-China trade tension, USA accusing China for current pandemic, assertiveness of China in the South China Sea** etc. are few issues between these two countries.
- **India** – Current border standoff at LAC is forcing India to recalibrate its ties with China. Also, growing bonhomie between China and Pakistan is a cause of worry for India.
- **Australia** - Australia is concerned about China's growing interest in its land, infrastructure and politics, and influence on its universities. In 2020, Australia asked for an international investigation into the origin of Coronavirus. However, China responded by **imposing crippling financial sanctions** on Australia.
- **Japan** - Japan is concerned about China's territorial transgression in the region. Both countries are involved in a dispute over Senkaku Islands (Diaoyu Islands). Also, Japanese economy is highly dependent on Chinese trade.

Rules-based Order and Need for Quad

- In recent times, China's aggressiveness has been manifested in the straits of Taiwan, South China Sea, eastern Ladakh and, Hong Kong. It is also rapidly modernising its defence forces and increasing its military presence in the disputed waters of the South China Sea and the East China Sea.
- In April 2020, a Chinese Coast Guard vessel **rammed and sank a Vietnamese fishing boat** close to the Paracel islands in the South China Sea.
- Later, a standoff between a Malaysian oil exploration vessel and a Chinese survey vessel, off Malaysia's Borneo, prompted the US and Australia to deploy warships to the area.
- Against this backdrop, Quad comes about as an effort to try to deter China's ability to challenge and disrupt the **rules-based order and the status quo in the Indo-Pacific region**.

Quad vs Belt and Road Initiative (BRI)

- The BRI promises economic security but **not human security** by providing funds to developing countries with a **debt trap**.
- Herein, the Quad can play a vital role as it is a group of democratic countries. It should provide a choice to the nations as to **where they want to borrow the money for development purposes** from and also be a part of the supply chain.

Challenges

- **Assertiveness of China** –After the Second Quad Ministerial meeting held in October 2020, China **reiterated its criticism** of the meeting by saying that it is opposed to the **formation of "exclusive cliques"** harming third party's interests. Chinese officials have likened the **group to a "mini-NATO"** and said its activities are aimed at targeting third parties.
- **China as a Trading partner** - Beijing has emerged as the most important trading partner of the Indian Ocean region, accounting for 16.1% of its total goods trade in 2017, up from 4.8% in 2000.
- **Approach of Member Countries** – While USA is quite vocal in naming the aggressive China, other members show restraint and avoid naming China directly. There is difference in the approach as well. E.g., USA looks the Indo-Pacific region militarily. On the other hand, India views this region diplomatically.
- **Different Areas of Prioritisation** - The way that the four different Quad members view their interests in the Indo-Pacific leads them to prioritise different areas. For instance, for the US, South China Sea and East China Sea are vital. Same goes for Japan. And for Australia, it also includes the Western Pacific. But for **India, the Quad is about the Indian Ocean and South China Sea is a secondary theatre**.
- **ASEAN** – Many analysts believe the elephant in the room is the ASEAN. As of now there are no signs that the ASEAN is willing to take a united stand on many issues so far raised by Quad. It would be difficult for the Quad to execute any effective policy minus the cooperation from the ASEAN countries.
- **RCEP** - Japan and Australia joined the Regional Comprehensive Economic Partnership (RCEP). This is an indication of their desire to do business with China even as they seek to deter its growing clout in the region.

Conclusion

- The Quad is emerging as a critical piece of the **Indo-Pacific's geopolitical fabric** with an interest in ensuring a rules-based approach to navigation in the Indo-Pacific.
- The initiative is expected to put an end to the economic coercion tactics of China and cooperation with Japan and other allies will checkmate Chinese development assistance and its hegemony in the region.

[Also read the topic “**Australia to be Part of Malabar Exercise**” (prelims section) from July 2020 edition of CA magazine]

MAINS Q&A

1. Even though the bonded labour was outlawed in 1976 with the enactment of Bonded Labour System (Abolition) Act, this modern-day slavery continue to be a prevalent and recurring practice in India. Discuss.

Answer:

The 1976 Bonded Labour (Abolition) Act defines 'bonded labour system' as "the system of **forced labour** under which a debtor enters into an agreement with the creditor that he would render service to him either by himself or through any member of his family for a specified or unspecified period, either **without wages or for nominal wages**, in consideration of loan or any other economic consideration obtained by him or any of his ascendants, or in pursuance of any social obligation.

The agreement has other consequences too, such as, **forfeit-ing the debtor the freedom of employment, denial of freedom of movement** in any part of the country, and **denial of the right to sell at market value** any of his property or product of his labour. The bonded labour system is mostly found among agricultural labourers in villages, though today it has extended to workers working in stone quarries, brick kilns, bidi factories etc.

Reasons Behind Persistence Of Bonded Labour In India:

- **Chronic poverty:** Majority of the population in India live in chronic poverty that is sustained through generations. These communities are devoid of productive assets such as land. Combined with low levels of education and vulnerability compounded by caste oppression these groups, owing to lack of alternatives, are forced into bonded labour.
- **Caste dynamics:** Bonded labour is a phenomenon that is structurally linked with people belonging to lower caste communities. Within the caste system, Dalits, or so-called untouchables, were to be assigned tasks and occupations that were deemed ritually polluting for other upper caste communities.
- **Landlessness:** Situation of bondage also arises when tribals are uprooted from their indigenous habitat by a corporation that sets up industries on their land. Due to loss of land and lack of education, they are forced to work for those industries that set their own terms of contracts. Workers are usually underpaid and live in terrible conditions.
- **Lack of financial inclusion:** Most of the workers do not have access to banks or formal credit systems as they do not have identity cards and are unable to open a bank account. In this scenario depend on informal moneylenders for credit and end up in doing bonded labour.
- **Lack of alternatives:** Due to lack of work opportunities, most of the rescued bonded labourers are likely to go back to very similar settings and slave away under bondage.
- **Improper implementation of the act:** The rehabilitation scheme under the 1976 Act, provides for immediate monetary compensation along with homestead land, cattle and skills to become employable so as to not slide into bondage again. In reality, most of the rehabilitation processes end after providing monetary compensation which is likely to get exhausted early and after which they would have no choice but to go back to similar work sites.

Another problem that is faced in the implementation of Act is the identification of bonded labourers. Neither the administrators admit the existence of bonded labourers in their areas nor do the creditors accept that any bonded workers are serv-ing them, nor are the workers themselves willing to give statements that they are being forced to work as bonded labourers since long.

Way Forward

- **Access to welfare schemes:** Most of the migrant workers are extremely poor and do not have any assets including a homestead land. Access to welfare schemes would prevent distressed migration.
- **Enabling rural employment and enterprise:** Organizing the rural poor into Self Help Groups and enable self-employment through skill based work.
- **Financial Inclusion:** Schemes such as the Jan Dhan Yojana and scaling up of micro-finance for the rural poor would prevent debt-bondage which is at the root of bonded labour.
- **Prevention of intergenerational slavery:** Children of brick kiln workers, who are often born on the kilns, start working from a very young age with their parents and never receive an education. Education along with skill building of children of the brick kiln workers would enable them to break away from the cycle of intergenerational slavery.
- **Constitutional safeguards:** Protection of migrant labour under respective labour laws and stringent application of the Bonded Labour Abolition Act with more prosecutions would help in eradicating the practice.
- **Prevention of re-bondage:** The amount of compensation needs to be increased along with housing facilities, enrolment of children in school and enabling rural enterprises.

Extra Mile

Bonded Labourers Rescued

- Five bonded labourers in Madhya Pradesh's Guna district were allegedly made to pick coins out of hot oil as punishment. The authorities rescued around 20 more people, with 11 of them minors.
- The district president of the Bonded Labour Liberation Front, said that at least 5,000 people are working under such conditions. Many who are rescued have no option but to return to such inhuman labour practices as the **government has failed to successfully rehabilitate them and give them employment.**

2. **Recently the Lok Sabha has passed the Arbitration and Conciliation (Amendment) Bill, 2021. Critically analyze features of the bill?**

Answer

The Arbitration and Conciliation (Amendment) Bill, 2021 was introduced in Lok Sabha in February, 2021. It seeks to **amend the Arbitration and Conciliation Act, 1996**. The Act contains provisions to deal with domestic and international arbitration **and defines the law for conducting conciliation proceedings**. The Bill **replaces an Ordinance** with same provisions promulgated on November 4, 2020.

Salient Features Of The Bill

Automatic Stay On Awards

- In the present regime, a party may file an application before the Court under **Section 34** of the 1996 Act for setting aside of an arbitral award. However, after the 2015 amendment to (Section 36 of) the Act, an **automatic stay would not be granted on operation of the award** by mere filing an application for setting it aside.
- The Bill clarifies that a **stay on the arbitral award may be granted by the Court, even during the pendency of the setting aside application**, if it is prima facie satisfied that the relevant arbitration

agreement or contract/ making of the award was induced by fraud or corruption. This shall be **deemed effective from October 23, 2015.**

Qualifications of Arbitrators

- **Schedule VIII** to the principal Act specifies that an arbitrator must be: (i) an advocate under the Advocates Act, 1961 with 10 years of experience, or (ii) an officer of the Indian Legal Service, among others.
- The Bill seeks to **omit Schedule VIII** and states that qualifications, experience and norms for accreditation of arbitrators shall be specified by Regulations.

Criticisms Against The Bill

- It is very **easy for the losing party to allege corruption and obtain an automatic stay** on enforcement of the arbitral award. Thereafter, the parties will have to wait for enforcement till final disposal by the Court. This **defeats the very objective of alternate dispute mechanism** by drawing parties to Courts and making them prone to prolonged litigation.
- By the proposed amendment to Section 36 of the Act, Government **is creating an 'illogical hierarchy' in the law.** The Act already covers agreements induced by fraud/ corruption and thus, there is no need to make the Act more complicated.
- Legislation **does not define Fraud/ Corruption.**
- **Retrospective application of Amendment Act** (from 2015) with respect to automatic stay may open floodgates of litigation.
- Amendment will affect enforcement of contracts and ultimately **affect ease of doing business in India.**
- Continuous piecemeal amendments to Arbitration Act in 2015, 2019 and 2020 indicates that **Government lacks legislative wisdom.**

Arguments In Support Of The Bill

- **Omission of Schedule VIII** of the Act will give **greater flexibility** to the Arbitration Council of India and will help in promoting institutional arbitration.
- The proposed amendment to Section 36 of the Act, despite use of words Fraud/ corruption in Section 34, was necessary as the **latter does not provide for an "automatic stay" of the award.**
- Stay on the award shall not be unlimited but will operate only till disposal of application for setting aside under Section 34 of the Act, by the Court. Moreover, **parties may file an appeal for setting aside such stay.**
- It ensure that all stakeholder parties get an opportunity to seek an unconditional stay of enforcement of arbitral awards where the underlying arbitration agreement or contract or making of the arbitral award are induced by fraud or corruption.
- The bill **facilitate speedy appointment of arbitrators** through designated arbitral institutions.

Conclusion

There has been a **manifold increase in the number of commercial disputes** due to globalisation, industrialisation and liberalisation. Arbitration has increasingly become a **preferred option to settle commercial disputes globally as well as in India.** Therefore, it is the need of the hour to reform the Act to achieve an effective and efficient arbitration system for commercial dispute resolution.

Conciliation

- Conciliation is the process where parties, with assistance from a dispute resolution practitioner (the conciliator) discuss issues to reach an agreement. The conciliator is responsible for managing the conciliation process.
- The process is similar to mediation. However, a conciliator will **provide advice on matters in dispute** and options for resolution, but **does not make determinations**.

Arbitration

Arbitration is where the parties to a dispute present arguments and evidence to a dispute resolution practitioner (the arbitrator). The **arbitrator makes binding decisions**.

3. **The Union Public Service Commission (UPSC) has issued an advertisement to recruit 30 persons at Joint Secretary (JS) and Director level in the Central administration through lateral entry in the second round. In this light, critically discuss the need for lateral entry in India?**

Answer

Lateral entry means the appointment of specialists from the private sector in government organisations. The government's idea is to bring in domain expertise from the private sector to the Central administration, which also faces a shortage of IAS (Indian Administrative Service) officers working on deputation in the Centre. Another objective of inducting specialists is to improve efficiency and create competition in governance delivery.

Earlier, eight persons, mostly domain experts, were selected for various Departments and Ministries. The basic qualification for a Joint Secretary lateral entrant is 15 years of work experience, and for Directors it is 10 years of work experience.

Need For Lateral Entry

- **Needs expertise:** The complexity of governance, it is argued, in the post-1991 era knowledge and technology-driven economy needs expertise that is often beyond the capabilities of a "generalist" civil servant. Moreover, IAS officers have little expertise in subjects like civil aviation, defence, coal, shipping, etc., as the states where the IAS officers spend most of their early career do not deal with these subjects.
- **Attract Talent:** It is an opportunity to attract and retain the best and brightest from across the world that have a sector perspective and boost the ministry or department's capabilities and proficiency.
- **Incentivize competition:** Lateral entrants can break the bureaucracy's monopoly over top-level policy positions and thus incentivise competition. It can also challenge the notion that professional ability is best assessed on the basis of scores secured in the Union Public Service Commission examination.
- **Source of innovative ideas:** Lateral entrants can be a source of innovative ideas and can bring strategic thinking into a system that has traditionally been inward looking and focused on the short term.
- **Shortage of IAS officers:** Data from the Department of Personnel and Training (DoPT) shows that 22 per cent of the total sanctioned IAS posts are lying vacant across the country. Due to the overall shortage of officials, most states are unwilling to release senior IAS officers for central deputation

leading to a bizarre situation where a railway traffic officer works as joint secretary in the health department, and an ordnance service official finds himself in the ministry of tribal affairs.

Arguments Against Lateral Entry

- **Adept at seeking expertise:** The most compelling argument in favour of lateral entry is its potential for bringing expertise and strategic thinking into the bureaucracy. If that was the case bureaucracy is adept at seeking expertise, when required. NGOs, think tanks and private sector specialists are all part of government committees and discussions where advice is regularly sought and given, in abundance.
- **Issues in implementation:** Lateral inductees, if divorced from grass-root realities level will find it difficult to get the policies implemented without the support of generalist officers.
- **Promote vested interests:** Private sector individuals brought on contract of three or five years may serve someone else's interest as they would have no long-term stake in the government.
- **Reduce number of government jobs:** This will lead to fewer prestigious government jobs since five-year contracts cannot be called full-fledged government jobs. Domain experts don't really need jobs, so by giving them contracts for a few years, it will be tough for the government to ensure employment.
- **Conflict of interest:** The current system of vigilance oversight, career progression, etc. is very strong and a contractually appointed JS can't be subjected to these. For instance, if a person from a private Petroleum company is appointed in the Petroleum ministry it will lead to questions of morality, ethics and conflict of interest.

Way Forward

- **Careful hiring:** Transparent and apolitical recruitment procedure with UPSC involvement to ensure that Merit system is maintained. Sanctity of the selection procedure should remain for the services to stay insulated from the government of the day.'
 - **Joint training:** Establish healthy working relations through Joint training with regular IAS/ Central services to diffuse any tension and promote team spirit.
 - **Cross-mobility:** It is also imperative to allow civil servants and government officials to be placed in the private sector for periods of three to five years at a time. While the UPSC produces outstanding individuals, to make these individuals truly well-rounded, they should have the option to gain experience and specialisations through private-sector placements. Cross-mobility will provide the ultimate synergy.
 - **2nd Administrative Reform Commission (ARC) recommendation:** The IAS too needs to be a specialised service (Gol 2009). Various commissions have put forward recommendations for domain specialisation of IAS officers, with public finance and taxation, financial management, industry and trade etc being some of the common domains identified. These commissions have also emphasised the assignment of officers on the basis of knowledge and experience in these domain areas.
 - **Transformation from within:** Unless there is the political will to address the well-known and documented systemic issues that cause the IAS to underperform, the hiring of a handful of talent from outside is not going to make a transformative change.
4. **Recently NITI Aayog has released a draft national migrant labour policy to address the issues related to migrants. Delineate the proposals in the draft policy to address the issues faced by migrant labours.**

Answer

- Spurred by the exodus of 10 million migrants from big cities during the Covid-19 lockdown, NITI Aayog has prepared a draft national migrant labour policy.
- The policy rejects a handout approach and proposes a rights-based framework. The goal should not be to provide temporary or permanent economic or social aids, which is a limited approach.
- Instead, it should enhance the agency and capability of the community and thereby remove aspects that come in the way of an individual's own natural ability to thrive.
- Therefore, migration, should be acknowledged as an integral part of development, and government policies should not hinder but seek to facilitate internal migration.

Governance Reform

- The Inter State Migrant Workers Act, 1979, was designed to protect labourers from exploitation by contractors by safeguarding their rights. However, this law covered only labourers migrating through a contractor, and left out independent migrants.
- As per the policy draft the Ministry of Labour and Employment should amend the 1979 Act for effective utilisation to protect migrants.
- The draft policy lays down institutional mechanisms to coordinate between Ministries, states, and local departments to implement programmes for migrants.
- It identifies the Ministry of Labour and Employment as the nodal Ministry for implementation of policies, and asks it to create a special unit to help converge the activities of other Ministries.
- This unit would manage migration resource centres in high migration zones, a national labour helpline, links of worker households to government schemes, and inter-state migration management bodies.
- It suggests that migration focal points should be created in various Ministries. Moreover, labour departments of source and destination states along major migration corridors, should work together through the migrant worker cells.
- Further, labour officers from source states can be deputed to destinations – for e.g., Bihar's experiment to have a joint labour commissioner at Bihar Bhavan in New Delhi.

Measures To Reduce Migration

- Even though the draft policy underlines the key role of migration in development, it recommends steps to stem migration. It asks source states to raise minimum wages to bring a major shift in local livelihood of tribals that may result in reducing migration to some extent.
- The absence of community building organisations (CBO) and administrative staff in the source states has hindered access to development programmes, pushing tribals towards migration.
- The long term plan for CBOs and panchayats should be to alleviate distress migration policy initiatives by aiming for a more pro-poor development strategy in the sending areas that can strengthen the livelihood base in these areas.

Role of Panchayats

- Policies should promote the role of panchayats to aid migrant workers and integrate urban and rural policies to improve the conditions of migration.
- Panchayats should maintain a database of migrant workers, issue identity cards and pass books, and provide migration management and governance through training, placement, and social-security benefit assurance.

Data Management

- The draft calls for a central database to help employers fill the gap between demand and supply and ensure maximum benefit of social welfare schemes.
- It asks the Ministries and the Census office to be consistent with the definitions of migrants and subpopulations, capture seasonal and circular migrants, and incorporate migrant-specific variables in existing surveys.

These measures would help to prevent another scenario like Covid-19 pandemic by recognising the importance of migrants as members of the mainstream economic system and equitably sharing the fruits of development with them instead of treating them as objects of exploitation.

Specific Recommendations

- The draft asks the Ministries of Panchayati Raj, Rural Development, and Housing and Urban Affairs to use Tribal Affairs migration data to help create migration resource centres in high migration zones. It asks the Ministry of Skill Development and Entrepreneurship to focus on skill-building at these centres.
- The Ministry of Education should take measures under the Right to Education Act to mainstream migrant children's education, to map migrant children, and to provide local-language teachers in migrant destinations.
- The Ministry of Housing and Urban Affairs should address issues of night shelters, short-stay homes, and seasonal accommodation for migrants in cities.
- The National Legal Services authority (NALSA) and Ministry of Labour should set up grievance handling cells and fast track legal responses for trafficking, minimum wage violations, and workplace abuses and accidents for migrant workers.

5. The International Energy Agency (IEA) recently released its second edition of India Energy Outlook (IEO). Delineate the findings of the report.**Answer**

India Energy Outlook 2021 explores the opportunities and challenges ahead for India as it seeks to ensure reliable, affordable and sustainable energy to a growing population.

Highlights of the IEO 2021

- The combination of a growing & industrialising economy and an expanding & increasingly urban population will drive higher energy use in India.
- India will be the main driver of rising demand for energy over the next two decades, accounting for 25% of global growth.
- Due to this, India will overtake the European Union as the world's third-biggest energy consumer by 2030 and will only be behind China and the United States.

Increase In Oil Imports

- India's growing energy needs will make it more reliant on fossil fuel imports as its domestic oil and gas production has been stagnant for years despite government policies to promote petroleum exploration and production and renewable energy.

- A five-fold increase in per capita car ownership will result in India leading the oil demand growth in the world. India's oil demand is expected to rise to 8.7 million barrels per day (bpd) in 2040 from about 5 million bpd in 2019.
- India, the world's second-biggest net oil importer behind China, currently imports about 76% of its crude oil needs. The dependence on overseas oil is expected to rise to 90% by 2030 and 92% by 2040.
- Rising oil demand could double India's oil import bill to about \$181 billion by 2030 and nearly treble it to \$255 billion by 2040 compared with 2019.

Focus On Clean Energy

- Coal currently dominates India's electricity sector, accounting for over 70% of overall generation with only about 4% produced through solar. Coal demand is expected to rise to 772 million tonnes in 2040 from the current 590 million tonnes.
- India, a signatory to the Paris climate accord, wants to boost power generation through renewables, mainly solar, and raise the share of natural gas in its energy mix to 15% by 2030 from 6.2% currently.
- It is expected that the share of solar energy in India's power generation could equal coal-based output by 2040.
- The natural gas requirement is projected to more than triple to 201 billion cubic meters by 2040. Liquefied natural gas (LNG) imports are expected to quadruple to 124 billion cubic metres (bcm), or about 61% of overall gas demand by 2040.

Future Outlook

- India's energy future depends on buildings and factories that are yet to be built and vehicles and appliances that are yet to be bought.
- Based on India's current policy settings, nearly 60% of its CO₂ emissions in the late 2030s will be coming from infrastructure and machines that do not exist today. This gives India a great opportunity to correct its energy path.
- India would need widespread electrification of processes, greater material and energy efficiency, the use of technologies like carbon capture, and a change to progressively lower-carbon fuels.
- These transformations would require huge improvements in innovation, strong partnerships and vast amounts of capital.
- India will need to spend an additional \$1.4 trillion to adopt clean energy technologies and be on a sustainable trajectory over the next 20 years.

The investment is around 70% higher than the country's current policy, but would bring huge benefits including savings of the same amount on its oil import bill. Thus, government policies to accelerate India's clean energy transition can lay the foundation for lasting prosperity and greater energy security.

- 6. Recently, the Union Budget announced that the government will privatise two public sector banks in the upcoming fiscal year. What is privatisation? Delineate the reasons for the said move, along with the issues faced by private banks.**

Answer

- Privatisation describes the process by which a piece of property or business goes from being owned by the government to being privately owned.

- Public sector banks (PSBs) are under **dual control**, with the RBI supervising the banking operations and the Finance Ministry handling ownership issues.
- The two banks that will now be privatised will be selected through a process in which NITI Aayog will make recommendations, which will be considered by a core group of secretaries on disinvestment.

Background

- Many committees have proposed bringing down the government stake in public banks below 51% — the Narasimham Committee proposed 33% and the P J Nayak Committee suggested below 50%.
- Through a series of moves over the last few years, the government is now left with 12 state-owned banks, from 28 earlier.
- In 2015, the Government had suggested privatisation of banks but the then RBI Governor did not favour the idea. Recently, an RBI Working Group had suggested to allow the entry of business houses into the banking sector.

Reasons For Privatisation Of Banks

- Over the years, the government has given capital support to public sector banks which includes Rs 80,000 crore in FY18, Rs 70,000 crore in September 2019 and Rs 1.06 lakh crore in FY19.
- However, years of capital support and governance reforms have not been able to improve the financial position of public sector banks significantly.
- Compared with private banks, PSBs continue to have high non-performing assets (NPAs) and stressed assets although this has started declining. After the Covid-related regulatory relaxations are lifted, banks are expected to report higher NPAs and loan losses.
- As per the RBI's recent Financial Stability Report, gross NPA ratio of all commercial banks may increase from 7.5% in September 2020 to 13.5% by September 2021 (from 9.7% to 16.2% for public sector banks; from 4.6% to 7.9% for private banks).
- Furthermore, the market share of private banks' in loans has risen to 36% in 2020 from 21.26% in 2015, while public sector banks' share has fallen to 59.8% from 74.28%.
- Private banks have increased their market share through new products, technology, and better services. Due to this, private banks are ahead of public sector banks in terms of profitability, market capitalisation and dividend payment record.
- For example, HDFC Bank (set up in 1994) has a market capitalisation of Rs 8.80 lakh crore while SBI's market capitalisation is just Rs 3.50 lakh crore.

Issues With Private Sector Banks

- However, in the last couple of years, some questions have arisen over the performance of private banks, especially on governance issues.
- A former ICICI Bank CEO was removed for allegedly misusing her official position to grant loans to Videocon group companies in exchange of illegal gains.
- A former Yes Bank CEO is facing investigations by various agencies. Lakshmi Vilas Bank faced operational issues and was recently merged with DBS Bank of Singapore.
- Moreover, the RBI found in 2015 that many private sector banks, including Yes Bank, were under-reporting NPAs.
- Also, there are concerns that the private sector banks are more concerned with profits and would not be willing to give loans to different sections of the society as this would raise transaction costs and reduce their profits.

Privatisation of two public sector banks will initiate a long-term project where there are only a few state-owned banks and the remaining banks are either consolidated with strong banks or privatised. Coming after 51 years of nationalisation of government-owned banks in 1969, the move will give the private sector a key role in the banking sector and free up the government, from continuing to provide capital support to the banks year after year.

7. Recently, there was an increase in bond yields in various financial markets of the world. What are bonds and bond yields? What are the factors affecting bond yields? Also delineate the impact of change in bond yields.

Answer

- The rise in bond yields across the world has led to a fall in equity (stock) markets in India. The fall was not limited to Indian stock markets, as primary stock indices in leading European and Asian markets have also fallen down.
- During the first half of the year, bond yield in India was mostly below 6 per cent, but the bond yield has now reached 6.2 per cent. Bond yield in the US, which was at 0.31 per cent in the month of March 2020, has now reached 1.38 per cent.

Bonds and Bond Yields

- Across the world, governments sell bonds to raise money to meet their expenditure. These bonds have a selling price and a fixed coupon rate (or the absolute amount of money that people earn).
- Bond yield is the return an investor gets on that bond or on a particular government security.
- For example, consider a 10-year government bond is priced at \$100 and the coupon rate is \$5. This means that if person buys this bond from the government for \$100 today, the government will pay the person \$5 each year and return \$100 to the person at the end of 10 years.
- In this example, the “yield” or the annual rate of return from the bond is 5%, but this **yield can change if the selling price of the bond changes**.

Factors Affecting Bond Yields

- There are many domestic and global developments that have an impact on bond yields. Major factors affecting the yield is the monetary policy of the Reserve Bank of India, especially the interest rates and the inflation.
- Inflation and interest rates are in turn affected by various other factors such as economic growth, sovereign rating, money supply, government borrowing, global liquidity and geopolitical developments.
- A fall in interest rates in the economy leads to an increase in bond prices and bond yields fall. Similarly, rising interest rates cause bond prices to fall, and bond yields to rise.

Link Between Equity Markets And Bond Yields

- Traditionally, when bond yields go up, investors pull out their investments from stocks and invest that money into bonds, as they are much safer.
- In essence, this means investors consider lending to the Indian government a better alternative than lending to the Indian firms via the stock markets.

- Therefore, generally bond yields are inversely proportional to equity returns. When bond yields decline, returns from equity markets tend to grow, and when bond yields rise, equity market returns tend to fall.
- Also, a rise in bond yields raises the borrowing cost for companies, which in turn reduces the valuations of their stocks.

Impact On Borrowing Cost And FPI

- When bond yields rise, the RBI has to offer higher yield to investors. This means borrowing costs will increase at a time when the government plans to raise Rs 12 lakh crore from the market in the near future.
- Besides, as government borrowing costs are used as the benchmark for calculating loans to businesses and consumers, any increase in yields will increase the borrowing cost in the overall economy.
- Bond yields play a big role in Foreign Portfolio Investment (FPI) flow. Traditionally, when bond yields rise in the US, FPIs move out of Indian stock market.
- A higher return on treasury bonds in the US, leads investors to move their funds from risky emerging market investments to the US Treasury, which is the safest investment instrument.

A continued rise in yields in developed markets may put more pressure on Indian stock markets, which may lead to an outflow of funds along with an increase in borrowing cost of the government and the overall economy. This can negatively impact future investments in the economy which is the need of the hour to push the economy on the path of growth after having endured a year of Covid-19 induced turmoil.

Extra Mile

Change in Bond Yields

- For the above-mentioned example, if at the start of the second year, investors feel that the prospects of the overall economy are not good, they might start investing in government bonds, as it is the safest form of investment.
- Due to this, the demand for government bonds will increase, which will increase the price of the bond.
- Consider that the price of the same 10-year bond (taken as an example above) rises by a dollar to \$101. Since the fixed coupon rate is still \$5, the effective return — on an investment of \$101 — that bondholders will get at the end of the second year will be only \$4.
- This leads to a yield of 3.96% — a fall from the 5% yield bondholders earned in the first year.

8. **Bring out the various challenges faced by India's defence acquisition framework? Also highlight the various measures taken by the Government to achieve self-reliance in defence production.**

Answer

- India's current acquisition framework consists, broadly, of a **two-tiered structure**, comprising the **Defence Acquisition Council (DAC)** and **its subordinate bodies** — the Defence Procurement Board, the Defence Research and Development Board and the Defence Production Board.
- This structure was created in 2001 in pursuance of the recommendations of the Group of Ministers (GoM), which was set up to review the "national security system in its entirety".

Issues with Defence Acquisition Framework:

- India's defence acquisition framework has **failed to ensure time-bound procurement** thus forfeiting available budgetary resources, as well as vulnerability to import-centric pressures, corruption and controversies.
- In its 2007 audit report, **CAG had noted that** the basic problem of India's defence acquisition framework was its **dispersed centres of responsibility** and **lack of professionalism** in acquisition.
- There are **too many independent actors** responsible for various acquisition functions that include drafting of technical features, issuance of tender document, undertaking of trials and evaluation etc.
- These actors are **neither trained for their assigned roles nor are they given adequate time to build institutional capacity**.
- So far, there has been **lip service to indigenisation/self-reliance**. Although the DPPs of recent years have tried to address this issue through a host of measures, the acquisition system still harbours its step-motherly attitude towards indigenous industry, particularly private sector companies.
- The **apathy towards domestic industry** has been **institutionalised by keeping the acquisition and production functions under two distinct power centres in the MoD**.
- These are the **offices of the DG (Acq.)** and **Secretary (Defence Production)** – the latter is responsible for indigenous arms production by both state and private entities. **Lack of convergence** has been observed between these two offices.
- Since the basic objectives of these two high offices are not necessarily driven by indigenous-centric procurement, the focus on indigenisation has become subservient to acquisition.

Various measures to achieve self-reliance in defence production:

- Two Defence Industrial Corridors have been established in Tamil Nadu and Uttar Pradesh.
- A new category '**Buy {Indian-IDDMM** (Indigenously Designed, Developed and Manufactured')) was introduced in the revised Defence Procurement Procedure to promote indigenous design and development of Defence equipment.
- 'Make-II' category encourages indigenous development by assurance for orders.
- DPSUs and OFB are required to give preference to domestic manufacturers while procuring these items.
- **Defence Investor Cell** has been created in Feb', 2018 to provide all necessary guidance and information to investors, innovators, MSMEs and Start-ups interested in defence manufacturing.
- An innovation ecosystem to foster innovation and technology development in Defence and Aerospace titled Innovations for Defence Excellence (iDEX) has been launched in April, 2018.
- **FDI Policy has been revised** and FDI is allowed under automatic route upto 49% and upto 100% with Government approvals.
- Defence Products list requiring Industrial Licences has been rationlised.
- In March, 2019 Government has notified a Policy for indigenization of components and spares used in Defence Platforms.

Conclusion:

- **Creation of the post of Chief Of Defence Staff (CDS)** is a major step towards addressing the issues related to defence acquisition. It will act as the **focal point for drawing up a consolidated procurement plan** for the defence and security forces.

- Also, the draft Defence Procurement Procedure 2020 is a right step forward towards indigenisation of defence equipment.
- By **simplifying the procedure** and **reducing the timeline**, it will go a long way in ensuring probity, transparency and accountability in defence procurement.

Capital Acquisition Proposals of Three Armed Forces

- Defence Acquisition Council (DAC) approved the capital acquisition proposals worth Rs 13,000 crore.
- The acquisitions include various weapons, platforms and equipment systems for the armed forces. All these acquisition proposals will be indigenously designed, developed and manufactured.

[For detailed analysis on the subject, please refer the topic “***Draft Defence Production and Export Promotion Policy 2020***” from August 2020 edition of CA magazine]

9. What is the new Geospatial Sector Policy of India? Why is liberalisation of geospatial data needed?

Answer

India is rapidly moving towards infrastructural development that has become necessary to be at par with countries across the world. With initiatives like Smart Cities and Digital India, geospatial data is of key importance **to undertake mapping to ensure proper development of sophisticated systems** like urban public transport, delivery and logistics, e-commerce, automated drones, etc. However, India is riddled with the **lack of data**. The mapping of the entire country, that too with high accuracy, by the Indian government alone could take decades.

The government therefore felt an urgent need to incentivise the geo-spatial sector for Indian companies and increase investment from private players in the sector. In this regard, the **Ministry of Science and Technology** recently released **new guidelines for the Geo-spatial sector in India**. The new policy deregulates existing protocol and liberalises the sector to a more competitive field.

Provisions of The New Geospatial Sector Policy

- Geospatial data policy had not been renewed in decades and has been driven by internal as well as external security concerns.
- According to the guidelines, **geospatial data implies location information** and includes data about **natural or man-made, physical or imaginary features** whether above the ground or below, **boundaries, points of interest**, natural phenomena, mobility data, **weather patterns, statistical information, etc.**
- With this new policy, **Indian entities would not have to get prior approvals, licences or security clearances, etc**, to acquire and produce such data and related services, including maps. This would include the Survey of India, data collected by security and law enforcement agencies

Earlier, companies needed government approval and licences to produce, change or disseminate such geospatial information. This would often involve long waiting periods and red tape.

- The new guidelines will be **applicable to geospatial data**, maps, products, solutions and services **offered by government agencies, autonomous bodies, academic and research institutions, private organisations, non governmental organisations and individuals.**
- There will, however, be a **negative list of sensitive information** that will require government regulation.

- In addition, the **new rules also allow foreign companies to use such data** by acquiring them from Indian companies but **only for the purpose of serving their customers in India**. They will not be allowed to reuse or resell such map data.
- The **private sector entities would now be able to self-certify** and adhere to the guidelines, making them more independent and also freeing up governmental resources.

Need For Liberalising Geospatial Data

- The reforms will allow Indian companies to develop apps like Google Earth and Google Maps. Existing Indian navigation companies like MapMyIndia will be able to make changes in their existing database without any approvals from the government.
- Liberalising the system will ensure **more players in the field, competitiveness of Indian companies in the global market**, and more accurate data available to both the government to formulate plans and administer, but also for individual Indians.
- **Startups and businesses** will be able to use this data in setting up their concerns, especially **in the sector of e-commerce or geo-spatial based apps**.
- There is also likely to be an **increase in public-private partnerships** with data collection companies working with the Indian government on various sectoral projects.
- It may lead to an **increase in investment** in the geo-spatial sector by companies, and also an **increase in export of data to foreign companies and countries**, which in turn will boost the economy.
- The availability of data and modern mapping technologies to Indian companies is also crucial for achieving the vision of AtmaNirbharBharat and a five trillion-dollar economy

With this policy, the private sector would be able to produce **more solutions in the geospatial sector**, resulting in an increase in employment, while also **pushing forth the economic growth**. Apart from that, with the opening up of such data, efficiencies in agriculture as well as related sectors would also be witnessed.

Geospatial Data

- Geospatial data is data about **objects, events, or phenomena** that have a location on the surface of the earth.
- It combines **location information, attribute information** (the characteristics of the object, event, or phenomena concerned), and often also **temporal information** or the time at which the location and attributes exist.
- This data is highly important because it gives people information about the location of **roads, rail lines, facilities, localities and waterbodies**.

1. Corruption Perception Index 2020 was released by

- a) Transparency International
- b) Niti Aayog
- c) Directorate of Vigilance, Government of India
- d) None of the above

Answer: A

Explanation:

- **India's rank has slipped six places to 86th** among 180 countries in a corruption perception index (CPI) 2020 released by **Transparency International (TI)**. However, the CPI score for India (40) is constant this year as well as the previous year's score.
- The index, which ranks 180 countries and territories by their **perceived levels of public sector corruption** according to experts and business people, uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.
- India is still **very low on corruption Index**, the report said, noting that experts feel the CPI does not reflect the actual corruption level in any country. The integrity score determines the corruption situation of a country.
- This year, **New Zealand and Denmark were ranked at first position** with scores of 88. **Somalia and South Sudan were ranked lowest** at 179th position with scores of 12.

2. Consider the following statements with reference to **President's Rule**

- 1. Every resolution approving the proclamation of **President's Rule** must be passed by either House of Parliament only by a special majority.
- 2. When the **President's Rule** is imposed in a state, the President dismisses the **State Council Of Ministers** headed by the Chief Minister.

Which of the statements given above is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: B

Explanation:

- The Union Cabinet approved a proposal by the Home Ministry to **dissolve the Puducherry Assembly and impose President's rule** in the Union Territory.
- The decision was taken as no party claimed to form a government following the resignation of the Chief Minister. Subsequently, the Lieutenant Governor had recommended President's rule.

About President's Rule

- **Article 356** empowers the President to issue a proclamation, if he is satisfied that a situation has arisen in which the government of a state cannot be carried on in accordance with the provisions of

the Constitution. Notably, the president can act either on a report of the Governor of the state or otherwise too (ie, even without the governor's report).

- **Article 365** says that whenever a state fails to comply with or to give effect to any direction from the Centre, it will be lawful for the president to hold that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution.
- Every resolution approving the proclamation of President's Rule or its continuation can be passed by either House of Parliament **only by a simple majority, that is, a majority of the members of that House present and voting.**
- When the President's Rule is imposed in a state, the **President dismisses the State Council of Ministers headed by the Chief Minister.** The State Governor, on behalf of the President, carries on the state administration with the help of the chief secretary of the state or the advisors appointed by the President. This is the reason why a proclamation under Article 356 is popularly known as the imposition of 'President's Rule' in a state.

3. Consider the following statements with reference to Motion of Thanks

- 1. In this address, the President outlines the policies and programmes of the government in the preceding year and ensuing year.**
- 2. If this motion is not passed in the House, it amounts to the defeat of the government.**

Which of the statements given above is/are correct?

- | | |
|-----------------|--------------------|
| a) 1 Only | b) 2 Only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: C

Explanation:

After a week-long disruption of Lok Sabha over the issues of farms laws and farmers' agitations, Lok Sabha resumed discussion on **motion of thanks to the President's address** to the joint sitting of both the Houses of Parliament.

About Motion of Thanks

- The first session after each general election and the first session of every fiscal year is addressed by the President. In this address, the President **outlines the policies and programmes of the government in the preceding year and ensuing year.**
- This address of the President, which corresponds to the 'speech from the Throne in Britain', is **discussed in both the Houses of Parliament on a motion called the 'Motion of Thanks'.**
- **This motion must be passed in the House. Otherwise, it amounts to the defeat of the government.** This inaugural speech of the President is an occasion available to the members of Parliament to raise discussions and debates to examine and criticise the government and administration for its lapses and failures.

4. The ambit of Prevention of Insults to National Honour Act, 1971 covers:

- | | |
|--------------------------|---------------------|
| a) National Flag | b) National Anthem |
| c) Constitution of India | d) All of the above |

Answer: D

Explanation

- It has been alleged that the body of a farmer who died during the recent farmers' protests in Delhi was draped in the national flag during his funeral.
- After which, Uttar Pradesh police has booked the relatives of the farmer under The Prevention of Insults to National Honour Act, 1971.

Use Of Flag In Funerals

- The national flag can only be used during a funeral if it has been given the status of a state funeral.
- Apart from police and armed forces, state funerals are held when people who are holding or have held office of President, Vice-President, Prime Minister, Cabinet Minister, Chief Minister pass away.
- The status of a state funeral can be given even to people not belonging to the armed forces, police or the above-mentioned categories by the state government. Even then, the national flag can be used.

Prevention of Insults to National Honour Act, 1971

- The Prevention of Insults to National Honour Act, 1971 prohibits the desecration of or insult to the Indian national symbols. The National symbols include the National Flag, the Constitution and the National Anthem.
- As per the Act, if anyone burns, spoils, disfigures, destroys, tramples upon or shows disrespect to the Indian National Flag or the Constitution of India shall be punished.
- The punishment for the above mentioned offences can be an imprisonment up to three years or a fine or both.
- The expression "Indian National Flag" includes any picture, painting, drawing or photograph, or other visible representation of the Indian National Flag.
- Criticism of the Constitution or of the Indian National Flag to obtain an amendment of the Constitution of India or an alteration of the Indian National Flag by lawful means do not constitute an offence under the Act.

Examples Of Disrespect As Per The Act

- The disrespect to the Indian National Flag means and includes dipping the Indian National Flag in salute to any person or thing.
- Flying the national flag at half-mast except on occasions on which the Indian National Flag is flown at half-mast on public buildings after instructions issued by the Government.
- Using the national flag as a drapery in any form except in State funerals or armed forces or other para-military forces funerals.
- Embroidering or printing it on cushions, handkerchiefs, napkins undergarments or dress material. Putting any kind of inscription on the national flag.
- Using the national flag to receive, deliver or carry anything except flower petals before the national flag is unfurled as part of celebrations on special occasions including the Republic Day or the Independence day.

Flag Code 2002

- The Flag Code of India, 2002 is a set of laws, practices and conventions that apply to the display of the national flag of India. As per the Code, the national flag should be rectangular in shape.

- Khadi or hand-spun cloth is the only material allowed to be used for the flag, and flying a flag made of any other material is punishable by law with imprisonment up to three years, besides a fine. Raw materials for khadi are restricted to cotton, silk and wool.
- The flag made of paper may be waved by public on occasions of important national, cultural and sports events. However, such paper flags should not be discarded or thrown on the ground after the event.

5. Kiran helpline is operated under:

- a) Ministry of Women and Child Development.**
- b) Ministry of Health and Family Welfare.**
- c) Ministry of Social Justice and Empowerment.**
- d) None of the above**

Answer: C

Explanation

- A report of the mental health helpline 'Kiran' being operated under the **Ministry of Social Justice and Empowerment** was recently released.
- The Kiran helpline was launched in September, 2020. The 24/7 helpline offers early screening, psychological first-aid, psychological support, distress management, mental well-being, psychological crisis management services and referrals to mental health experts.

Highlights Of The Report

- As per the report, 70.5% of calls to the helpline were from males and 29.5% from females.
- The majority of callers (75.5%) were in the age group of 15 to 40 years, while 18.1% were older, in the 41 to 60 age group.
- Categorising the callers, the report said, 65.9% had "milder nature of distress", while 26.5% were "moderately distressed" and 7.6% were "severely distressed".
- 15.2% were self-employed, 27.1% were employed, 23.3% were unemployed, 1.4% were home-makers and 0.7% did not reveal the information.
- About 32% of those who reached out were students. Students were facing anxiety and depression due to the uncertainty about their future and lack of interaction with peers during the COVID-19 pandemic.
- While most of the callers (78.2%) sought help for themselves, others reached out for their parents, siblings, spouse and others.
- Majorly the challenges faced by the callers were related to anxiety (28.5%) and depression (25.5%); while few others included pandemic-related challenges (7.8%), suicidal tendency (2.8%), substance abuse (3.4%) and others miscellaneous (32%).
- Women from rural areas had reached out to the helpline with complaints of anxiety and disturbances within families.
- Most of the calls were from the North zone (40.32%), followed by West (27.08%), South (16.99%), East (11.28%) and North East (4.33%).

6. The World Sustainable Development Summit is held by:

- | | |
|-------------------------|----------------------|
| a) United Nations | b) World Bank |
| c) World Economic Forum | d) None of the above |

Answer: D

Explanation

- The Prime Minister of India recently inaugurated the World Sustainable Development Summit 2021.
- Theme of the Summit: 'Redefining our common future: Safe and secure environment for all'.
- The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (**TERI**).
- Instituted in 2001, the current Summit is the 20th edition of its journey to make sustainable development a globally shared goal.
- The Summit series has established itself as a responsible and an effective platform to identify and advance actions to address some of the most relevant issues concerning sustainable development.
- It aims to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform.

Highlights Of The Address

- At the Summit, the PM said that two things will define the journey of humanity in the future. First is the health of the people and second is the health of the planet and both are inter-linked. He shared that the Summit aims to address the health of the planet.
- The scale of the challenge is unknown and conventional approaches cannot solve the problems faced by the world. Thus, there is a need to think innovatively, invest in youngsters and work towards sustainable development.
- Often discussions on sustainability become too focused on green energy but green energy is only the means and the destination is a greener planet.

India's Progress

- The PM said that sustainable development is incomplete without equitable access and India has made good progress in this domain as well.
- In March 2019, India achieved nearly hundred percent electrification, which was done through sustainable technologies and innovative models.
- Through the **Ujala program**, three sixty seven million LED bulbs became a part of people's lives. This has helped to reduce over 38 million tonnes of carbon dioxide per year.
- Moreover, through the **PM Ujjwala Yojana** more than 80 million house-holds below poverty line have access to clean cooking fuel.
- India's mission to achieve sustainable development also includes special attention towards animal protection. On this front, in the last five to seven years, the population of lions, tigers, leopards and Gangetic river dolphin has increased.

The Energy and Resources Institute (TERI)

- **Headquartered in New Delhi**, TERI is a research institute that specializes in the fields of energy, environment and sustainable development.

- TERI's mission is to achieve a cleaner and sustainable future through the conservation and efficient use of energy and other resources, and innovative ways of minimizing and reusing waste.
- The institution believes that resource efficiency and waste management are the keys to smart, sustainable, and inclusive development.
- Research at TERI gets translated into technology products, technical services, as well as policy advisory. Thus, TERI's research and research-based solutions have had a transformative impact on industries and communities.

7. The Universal Immunization Programme includes vaccination for which of the following:

- | | |
|---------------|--------------------------|
| 1. Pertussis | 2. Japanese Encephalitis |
| 3. Zika virus | 4. Hepatitis C |
| 5. Tetanus | |

Choose the correct option using the codes below:

- | | |
|--------------------|---------------------|
| a) 2, 3 and 4 only | b) 1, 3, and 4 only |
| c) 1, 2 and 5 only | d) 1, 3, 4 and 5 |

Answer: C

Explanation

- The Ministry of Health and Family Welfare recently launched **Intensified Mission Indradhanush 3.0** (IMI 3.0) to expand immunization coverage across the country.
- IMI 3.0 is aimed at reaching the unreached population with all the available vaccines under Universal Immunisation Programme.
- An IMI 3.0 Portal has been designed to manage data reporting and analysis, along with operational guidelines and awareness material of the campaign.
- As per the guidelines, the districts have been classified to reflect 313 low risk; 152 as medium risk; and 250 as high-risk districts.
- IMI 3.0 will be conducted in two rounds starting from February 22 and March 22. Both rounds will be for 15 days each.

Target and Beneficiaries

- The present campaign will target achieving 90 percent Full Immunization Coverage in all districts of the country and sustain the coverage through immunization system strengthening.
- The focus of IMI 3.0 will be children and pregnant women who have missed their vaccine doses during the COVID-19 pandemic.
- Beneficiaries from migration areas and hard to reach areas will also be targeted as they may have missed their vaccine doses during COVID 19.

Universal Immunisation Programme

- India's Universal Immunisation Programme (UIP) provides free vaccines to children against 12 life threatening diseases.

- Recently, the Centre has reconstituted the governing council of the NITI Aayog with the Prime Minister as its chairperson.
- According to a notification of the Cabinet Secretariat, Chief Ministers of all states and Chief Ministers of Union Territories of Jammu and Kashmir, Delhi and Puducherry are full time members of the council.
- The Lieutenant Governors of Andaman and Nicobar Islands, Ladakh, and the administrators of Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Lakshadweep will be special invitees of the governing council.

Highlights Of The Sixth Council Meeting

A. Making India A Manufacturing Powerhouse

- The Council discussed steps for making India a manufacturing powerhouse.
- The discussion focussed on reducing compliance burden, initiating reforms at the State level, improving logistics, promoting exports through district-level competition and creating jobs.
- It was highlighted that the Central Government has introduced the Production Linked Incentive (PLI) scheme for various sectors, to increase manufacturing in the country.
- The States were urged to take full advantage of PLI scheme for various sectors, to increase manufacturing in the country, attract maximum global investments and take benefits of reduced corporate tax rates.

B. Improving Physical Infrastructure

- For improving physical infrastructure, the Chief Ministers expressed the need to raise public capital investment and completing projects under the National Infrastructure Pipeline.
- They also stressed on the need to enhance investments in infrastructure through private and Public Private Partnerships, improving last-mile connectivity, reducing energy costs and developing an enhanced and efficient role of States in project implementation.

C. Reimagining Agriculture

- Even though India is an agricultural economy, it still imports many inputs. The PM stressed on becoming self-reliant in this area. He also urged the states to focus on storage and processing of agricultural products to reduce wastage.
- There are many agricultural products in India that can be supplied to the rest of the world in addition to fulfilling the country's needs.
- For this, he insisted that it is necessary for all States make an agro-climatic regional planning strategy.

D. Accelerating Human Resource Development

- The PM pointed that the youth play an important role in accelerating change in the country. Thus, innovation must be encouraged and more technology should be used to provide better opportunities for education and skill development.
- The Council members discussed measures to strengthen institutions for skilling, re-skilling, and up-skilling of workforce.
- Focus was also laid on improving service delivery at the grassroots level, by ensuring digital infrastructure for the rural regions.

9. Which of the following criteria is used by the Committee for Development Policy to classify a country as a Least Developed Country?

1. Gross National Income per capita
2. Human Assets Index
3. Economic Vulnerability Index

Choose the correct option using the codes below:

- | | |
|-----------------|-----------------|
| a) 1 and 2 only | b) 2 and 3 only |
| c) 1 and 3 only | d) 1, 2 and 3 |

Answer: D

Explanation:

- The United Nations Committee for Development Policy (CDP) has recommended graduation of Bangladesh from the category of Least Developed Country (LDC).
- This is the second consecutive time since 2018 that the CDP has made recommendation for Bangladesh's graduation from LDC category.

Least Developed Countries

- The category of LDCs was officially established in 1971 by the UN General Assembly to attract special international support for the most vulnerable and disadvantaged members of the United Nations. They represent the poorest and weakest segment of the international community.
- They comprise more than 880 million people (about 12 per cent of world population), but account for less than 2 percent of world GDP and about 1 percent of global trade in goods.
- They have a low level of socio-economic development, weak institutional capacities, low and unequally distributed income and scarce domestic financial resources.
- Their largely agrarian economies are affected by a cycle of low productivity and low investment. They rely on the export of few primary commodities as major source of export and fiscal earnings, which makes them highly vulnerable to external trade shocks.
- They often suffer from governance crisis, political instability and, in some cases, internal and external conflicts.
- As of December 2020, 46 countries are classified as LDC, while six have been upgraded between 1994 and 2020.

Criteria for LDCs

The identification of LDCs is based on **three criteria**:

i) Gross national income (GNI) per capita: As of 2018, a country was required to have a GNI per capita below \$1,025 to be included in the LDC category.

ii) Human assets index (HAI)

- ✓ Indicators of Health: Percentage of population undernourished; Under-five mortality rate; and Maternal mortality rate.
- ✓ Indicators of Education: Gross secondary school enrolment ratio; and Adult literacy rate.

iii) Economic vulnerability index (EVI)

- ✓ Population size;

- ✓ Share of agriculture, hunting, forestry and fishing in GDP;
- ✓ Share of population in low elevated coastal zones;
- ✓ Instability of exports of goods and services;
- ✓ Victims of natural disasters;
- ✓ Instability of agricultural production.

Graduation from LDC

- The CDP makes a recommendation for graduation of a country from LDC based on three criteria- GNI per capita income, human assets index and an economic vulnerability index.
- A country must achieve **at least two of the three criteria at two consecutive triennial reviews** to be considered for graduation from LDC.
- After CDP's recommendation for graduation of country, the recommendation must be approved by the ECOSOC and the United Nations General Assembly (UNGA).
- Bangladesh has met all the three eligibility criteria for the second time, for graduating from the LDC category to the category of developing nations.
- The proposal will now be sent to the United Nations Economic and Social Council (ECOSOC) for approval in June 2021. The graduation will be finally approved by the UNGA in September this year.
- Bangladesh will get time up to 2026 to prepare for the transition to the status of a developing country.
- Usually, countries are given three years for transition but this year due to the Covid-19 pandemic, Bangladesh has been given five years for the process.

Impact of graduation from LDC

- Graduation from LDC has its pros and cons for the countries. LDC countries get certain preferential provisions in export, subsidy to agriculture and infant industries and access to climate finance.
- After a country graduates from the LDC category, it may lose access to these benefits.
- However, a country that the graduates from the LDC, can get improved credit rating, higher FDI and various benefits from international financial bodies.

Committee for Development Policy (CDP)

- The CDP is a subsidiary advisory body of United Nations Economic and Social Council (ECOSOC). It advises ECOSOC on a wide range of emerging economic, social and environmental issues.
- Every three years, the CDP has to undertake a review of the list of LDCs, on the basis of which it advises ECOSOC, which countries should be added to or graduated from the LDC list.
- The CDP also develops the criteria for identifying LDCs and has to review the criteria.
- Additionally, the CDP monitors the development progress of countries that have graduated or are graduating from the LDC list.

10. Consider the following statements regarding National Commission for Backward Classes (NCBC):

- 1. NCBC is a constitutional body.**
- 2. The members of NCBC are appointed by the President.**

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Answer: C**Explanation**

- The chairman of the National Commission for Backward Classes (NCBC) has said that NCBC is in favour of creating four sub-categories of Other Backward Classes (OBCs).
 - These sub-categories will be broadly based on OBC sections which have **either benefited adequately** or **benefited less** from reservation.
 - The other two categories are about **least benefited** and those who have **not at all benefited** from the present reservation structure for OBCs.
- OBCs are granted 27 per cent reservation in jobs and education under the central government. However, there is a perception that only a few rich communities among over 2600 included in the Central List of OBCs have taken the benefit of this 27 per cent reservations.
- The argument for creating categories within OBCs for reservation is that it would ensure “equitable distribution” of benefits of reservation among all OBC communities.
- The **Justice Rohini Commission** is studying sub-categorisation of OBCs and is expected to submit its report to the government in July, 2021. The mandate of Rohini Commission include -
 - Examine the unequal distribution of benefits of reservation among the castes or communities included in Central List of OBCs.
 - Work out mechanism, criteria and parameters for sub-categorisation within such OBCs.
 - Identify respective castes and communities or sub-castes to classify them in broad categories.
 - To study the various entries in the Central List of OBCs and recommend correction of any repetitions, ambiguities, inconsistencies and errors of spelling or transcription.

Commission’s Findings So Far

- In 2018, the Commission analysed the data of 1.3 lakh central jobs given under OBC quota over the preceding five years and OBC admissions to central higher education institutions, including universities, IITs, NITs, IIMs and AIIMS, over the preceding three years.
- The findings were: **97% of all jobs and educational seats have gone to just 25% of all sub-castes classified as OBCs**; 24.95% of these jobs and seats have gone to just 10 OBC communities;
- **983 OBC communities — 37% of the total — have zero representation** in jobs and educational institutions; 994 OBC sub-castes have a total representation of only 2.68% in recruitment and admissions.

OBC Recruitment In Central Jobs

- As per the report submitted to the National Commission for Backward Classes (NCBC) by the Department of Personnel and Training on July 24, 2020, **OBC representation is 16.51 % in group-A central government services, 13.38 % in group-B, 21.25 % in group-C** (excluding safai karmacharis) and 17.72 % in group-C (safai karmacharis).
- This data was for only 42 ministries/departments of the central government.

Future Outlook

Although the central government appears to be in favour of sub-categorisation of OBCs, it needs Cabinet approval and has to be passed by Parliament after the Justice Rohini Commission submits its report.

National Commission for Backward Classes

- In 1992 Indira Sawhney case, Supreme Court directed the government to constitute a permanent body to assist in issues related to inclusion of other backward classes in the Central List.
- Following the Supreme Court judgement, Parliament passed the National Commission for Backward Classes Act, 1993 to constitute the National Commission for Backward Classes. This gave NCBC a statutory status.
- Later in 2018, the NCBC was made a constitutional body through the **102nd Constitutional Amendment Act**.

Structure of NCBC

- The NCBC has five members, which includes a Chairperson, Vice-Chairperson and three other members.
- The Chairperson, Vice-Chairperson and other members of the Commission are appointed by the President.
- The conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other members, is determined by the President.

Powers and Functions of NCBC

- Investigate and monitor all matters relating to the safeguards provided for the socially and educationally backward classes and to evaluate the working of such safeguards.
- Inquire into specific complaints with respect to the deprivation of rights and safeguards of the socially and educationally backward classes. During the investigation, the Commission has the powers of a civil court.
- Participate and advise on the socio-economic development of the socially and educationally backward classes and to evaluate the progress of their development under the Union and any State.
- Present reports to the President regarding the working of the safeguards. The report should include measures for the protection, welfare and socio-economic development of the socially and educationally backward classes.

11. SARAS Aajeevika Mela is held by:

- a) Ministry of Rural Development.**
- b) Ministry of Commerce.**
- c) Ministry of Skill Development and Entrepreneurship.**
- d) None of the above**

Answer: A

Explanation

- The Saras Aajeevika Mela 2021 is currently being held by the Ministry of Rural Development. More than 300 rural self-help groups and craftsman from 27 states are participating in the Mela.
- During the Mela, workshops on product packaging and design, communication skills, social media publicity and Business 2 Business marketing will be organised to educate the rural self-help groups and craftsmen.

- SARAS Aajeevika Mela is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development (MoRD).
- Its objective is to bring the rural women Self Help Groups (SHGs) formed with support of DAY-NRLM, under one platform to show-case their skills, sell their products and help them build linkages with bulk buyers.
- Through participation in the Mela, these rural SHG women get vital national level exposure to understand the demand and taste of urban customers.
- The Mela is organised by the marketing arm of the Ministry, Council for Advancement of People's Action and Rural Technology (CAPART).

12. Nurturing Neighbourhoods Challenge is conducted by:

- a) Ministry of Urban Development.
- b) Ministry of Housing and Urban Affairs.
- c) Ministry of Social Justice and Empowerment.
- d) None of the above

Answer: B

Explanation

- The Smart Cities Mission, Ministry of Housing and Urban Affairs, recently announced twenty-five shortlisted cities for the 'Nurturing Neighbourhoods Challenge' cohort.
- The Nurturing Neighbourhoods Challenge is a 3-year initiative hosted by the Smart Cities Mission, Ministry of Housing and Urban Affairs, in collaboration with the Bernard van Leer Foundation and World Resources Institute India.
- The Challenge enables Indian cities to adopt an early childhood lens in designing neighbourhood-level improvements that promote the health and well-being of young children and their caregivers.
- It is based on the Infant, Toddler, Caregiver-Friendly Neighbourhood (ITCN) framework.
- Adopting an early childhood lens can help city leaders, policy makers and urban practitioners envision safe, inclusive and resilient cities for all.
- The selected cities will receive technical support and capacity-building to develop, pilot and scale solutions that enhance the quality of life of young children.

13. Consider the following statements about Jal Jeevan Mission (Urban):

1. JJM (U) aims at providing universal coverage of water supply to all households in statutory towns.
2. The Central government will cover the entire expense under JJM (U).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: A

Explanation

- Jal Jeevan Mission (Urban) was recently announced under Ministry of Housing and Urban Affairs in the Budget 2021-22.
- The mission has a reform agenda with focus on strengthening of urban local bodies and water security of the cities.

Salient Features of the JJM (U)

- The Mission has been designed to provide **universal coverage of water supply to all households** through functional taps in all 4,378 statutory towns in accordance with SDG Goal- 6.
- 2.68 crore is the estimated gap in urban household tap connections that is proposed to be covered under JJM(U). Likewise, JJM (U) has proposed 2.64 crore sewer connections/septage in 500 AMRUT cities.
- It also aims at **rejuvenation of water bodies** to increase sustainable fresh water supply and create green spaces and sponge cities to reduce floods and enhance amenity value through an Urban Aquifer Management plan.
- A sponge city is an urban area which has been designed to cope with excess rainfall using a variety of techniques
- JJM(U) will **promote circular economy of water** through development of city water balance plan for each city focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation.
- 20% of water demand will be met by reused water with development of institutional mechanism.
- A **Technology Sub-Mission for water** is proposed to leverage latest global technologies in the field of water.
- It also proposed an Information, Education and Communication (**IEC**) **campaign** to spread awareness among masses about conservation of water.
- A **Pey Jal Survekshan (survey)** will be conducted in cities to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies with respect to quantity and quality of water through a challenge process.

Funding

- The total proposed funding for JJM(U) is ₹2,87,000 crore which includes ₹10,000 crore for continuing financial support to AMRUT Mission.
- For Union Territories, there will be 100% central funding. For North Eastern and Hill States, central funding for projects will be 90%.
- Central funding will be 50% for cities with less than 1 lakh population, one third for cities with 1 lakh to 10 lakh population and 25% for cities with million plus population.

14. Which of the following are types of Silk?

- | | |
|-------------|-----------|
| 1. Mulberry | 2. Tassar |
| 3. Cashmere | 4. Eri |
| 5. Muga | |

Choose the correct option using the codes below:

a) 2 and 3 only

b) 1, 2, 3 and 5 only

c) 1, 4 and 5 only

d) 1, 2, 4 and 5

Answer: D**Explanation:**

- The Ministry of Textiles recently inaugurated the **8th India International Silk Fair**, considered to be the country's biggest silk fair.
- India International Silk Fair is the Sourcing Fair for silk and silk blend products organised by the Indian Silk Export Promotion Council under the aegis of Ministry of Textiles and sponsored by Department of Commerce.

Silk

- Silk is a natural fibre made of proteins secreted in the fluid state as single filament by a caterpillar, popularly known as 'silkworm'. These silkworms feed on selected food plants and spin cocoons as a protective shell. Humans interfere with the life cycle of a silkworm at the cocoon stage to obtain silk.
- Silk has several natural properties that make it distinct from many other fibres both natural and man-made.
- It has a natural shine, is light weight and is a poor conductor of heat that makes it warm in the winter and cool in summer.
- There are **four major types of silk** which are commercially known and produced in the world. These are Mulberry, Eri, Tassar, and Muga.
 - Mulberry silk comes from the silkworm, that only feeds on the leaves of mulberry plant. Mulberry silk is the most important type of silk and contributes as much as 90 per cent of world silk production.
 - Tassar silk is produced from larvae of several species of silkworms belonging to the genus *Antheraea*. These silkworms live in the wild forests and eat leaves of the trees they live on.
 - Eri silk comes from silkworms that are domesticated and brought up on castor oil plant leaves to produce a white or brick-red silk. It mainly comes from northeast India and some parts of China and Japan.
 - The muga silkworms also belong to the same genus as tassar worms, but produce an unusual golden-yellow silk thread which is very attractive and strong. These are found only in the state of Assam.
- **Sericulture** or silk farming, is the cultivation of silkworms to produce silk.

Silk Production In India

- India has long history of silk production and is the **second largest producer of silk** in the world. The total raw silk production in India in 2018-19 was 35,261 metric tonnes.
- India is the only country in the world which produces all the four major varieties of silk i.e. Mulberry, Eri, Tassar, and Muga.
- Among the four varieties of silk produced in 2018-19, Mulberry accounts for 71.50 % (25,213 MT), Tassar 8.44 % (2,977 MT), Eri 19.40 % (6,839 MT) and Muga 0.66 % (232 MT).

Measures To Promote Silk Production

- Sericulture is included as agriculture allied activity under Rashtriya Krishi Vikas Yojana (RKVY). This enables the sericulturists to avail the benefits of the scheme for entire sericulture activities.

- The **Central Silk Board (CSB)**, a statutory body under the Ministry of Textiles, undertakes various measures to encourage production and export of silk.
- To benefit farmers engaged in sericulture, CSB is implementing a restructured Central Sector Scheme '**Silk Samagra**', which mainly focuses on improving quality and productivity of domestic silk.
- CSB also works on strengthening research and development to improve the levels of cocoon production and productivity.

Note: Cashmere is a type of wool.

15. Consider the following statements about Food Corporation of India (FCI):

1. **FCI is an executive body.**
2. **FCI comes under the Ministry of Food Processing Industries.**

Which of the statements given above is/are correct?

- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: D

Explanation:

- The Food Corporation of India's (FCI) **economic cost** of wheat sold through the public distribution system (PDS) is budgeted to go up to Rs 29.94 per kg (from Rs 27.40) and that of rice to Rs 42.94 per kg (from 39.99 per kg) in 2021-22.
- Economic cost is the amount FCI incurs in procuring, transporting, storing and distributing every kg of wheat or rice.
- Rice and wheat stocks with FCI are above the necessary level of stocks even after implementing special schemes of food distribution due to the Covid-19 induced lockdown.
- The total grain stock in the central pool is at 82.18 mt as on February 1, compared to 75.17 mt a year ago. The continued build-up of public stocks is largely due to procurement of food grains.

Significance Of The Increase In Economic Cost

- Under the National Food Security Act (NFSA) of 2013, 81.35 crore persons, accounting for over 67% of the country's population, are entitled to receive 5 kg of PDS wheat or rice per month at Rs 2 and Rs 3 per kg, respectively.
- At the projected economic cost of Rs 29.94/kg for wheat and Rs 42.94/kg for rice, the **per-kg PDS consumer subsidy** in the coming fiscal would be Rs 27.94 and Rs 39.94, respectively.
- Moreover, pressure from the farmer protests may force an increase in purchase of wheat, in the upcoming rabi marketing season from April, which will increase the subsidy bill of the government.

Food Corporation of India (FCI)

- The Food Corporation of India was set up in 1965, under the Food Corporation Act, 1964, as the country was facing major shortage of food grains, especially wheat.
- It is a statutory body under the Ministry of Consumer Affairs, Food and Public Distribution.
- Since its inception, FCI has played a significant role in India's success in transforming the crisis management-oriented food security into a stable security system.

• Objectives of FCI

- Provide remunerative prices to farmers for safeguarding their interests.
- Distribution of food grains throughout the country for public distribution system.
- Maintaining satisfactory level of operational and buffer stocks of food grains to ensure national food security.

16. The benefits under Production Linked Incentive (PLI) Scheme for pharmaceuticals are applicable to which of the following?

- | | |
|---|----------------------------------|
| 1. Active Pharmaceutical Ingredients | 2. Key Starting Materials |
| 3. Drug Intermediates | 4. Orphan drugs |

Choose the correct option using the codes below:

- | | |
|---------------------------|-------------------------|
| a) 1 and 3 only | b) 2 and 3 only |
| c) 1, 2 and 4 only | d) 1, 2, 3 and 4 |

Answer: D

Explanation:

- The Union Cabinet recently approved the Production Linked Incentive (PLI) Scheme for the pharmaceutical sector, with an outlay of Rs. 15,000 crore.
- The PLI scheme aims to boost domestic manufacturing and reduce imports by providing incentives on incremental sales from products manufactured in the country.

Status Of Indian Pharmaceutical Industry

- The Indian pharmaceutical industry is **3rd largest in the world by volume** and is worth USD 40 billion in terms of value. The country contributes 3.5% of total drugs and medicines exported globally.
- India exports pharmaceuticals to more than 200 countries and territories including highly regulated markets such as USA, UK, European Union, Canada etc.
- India has a complete ecosystem for the development and manufacturing of pharmaceuticals with good facilities and highly skilled/technical manpower.
- The country also has a number of renowned pharmaceutical educational and research institutes and a robust support of allied industries.
- However, at present, low value generic drugs account for the major component of Indian exports, while a large proportion of the domestic demand for patented drugs is met through imports.
- This is because the Indian pharmaceutical sector lacks in high value production along with the necessary research and development.

Objectives of PLI Scheme

- The objective of the scheme is to enhance India's manufacturing capabilities by increasing investment and production in the sector.
- Contribute to product diversification to high value goods.
- Create global champions in India who have the potential to grow in size and scale and become a part of global value chains.

Details Of The Scheme

- The duration of PLI scheme for Pharmaceuticals will be from FY 2020-21 to FY 2028-29.
- Rate of incentive will be applicable on the incremental sales value and will vary across different categories of products.
- Financial Year (FY) 2019-20 will be treated as the base year for calculation of incremental sales of manufactured goods.
- The manufacturers of pharmaceutical goods registered in India will be grouped in three groups based on their Global Manufacturing Revenue (GMR).

Category Of Goods Covered

The scheme will cover pharmaceutical goods under **three categories**.

Category 1

- Biopharmaceuticals, complex generic drugs, patented drugs or drugs nearing patent expiry, cell based or gene therapy drugs, orphan drugs, special empty capsules, complex excipients and other drugs as approved.
- **Orphan drugs:** They are medicinal products used to treat rare diseases or disorders. They are called orphan drugs because due to their small market, few pharmaceutical companies pursue research into such products.

Category 2

- Active Pharmaceutical Ingredients (API), Key Starting Materials and Drug Intermediates.
- **API:** The API is the central ingredient in any drug which produces the required effects in the body.
- **Drug Intermediate (DI):** A material produced during intermediate steps in the development of an API that has to undergo further molecular change or processing before it becomes an API.
- **Key Starting Material (KSM):** A raw material or intermediate that is used in the production of an API.

Category 3

- This category includes drugs not covered under Category 1 and Category 2.
- These include: auto immune drugs, anti-cancer drugs, anti-diabetic drugs, anti-infective drugs, cardiovascular drugs, psychotropic drugs, other drugs not manufactured in India and other drugs as approved.

Benefits

- The scheme is expected to bring in investment of Rs.15,000 crore in the pharmaceutical sector.
- It will benefit domestic manufacturers and is expected to promote innovation for development of complex and high-tech products and create self-reliance in important drugs.
- Total incremental sales of Rs.2,94,000 crore and total incremental exports of Rs.1,96,000 crore are estimated during six years from 2022-23 to 2027-28.
- It is expected to generate employment for both skilled and un-skilled personnel, estimated at 20,000 direct and 80,000 indirect jobs as a result of growth in the sector.
- It is also expected to improve accessibility and affordability of medical products including orphan drugs to the Indian population.

Prevention of Money Laundering Act, 2002

- Prevention of Money Laundering Act, 2002 was enacted to fight the criminal offence of legalizing the income/profits from an illegal source.
- The Act puts the responsibility on banking companies, financial institutions and intermediaries to verify identity of clients, maintain records and share information in prescribed form to Financial Intelligence Unit - India (FIU-IND).
- The **Enforcement Directorate** in the Department of Revenue, Ministry of Finance, is responsible for investigating offences of money laundering under PMLA.
- **Punishment Under PMLA**
 - The Act provides for seizure/freezing of property obtained from money laundering.
 - Any person found guilty of money-laundering shall be punishable with rigorous imprisonment from three years to seven years.
 - Further, for money laundering offences related to Narcotic Drugs and Psychotropic Substance Act, maximum punishment may extend to 10 years instead of 7 years.

FIU-IND

- Financial Intelligence Unit – India (FIU-IND) is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the **Finance Minister** of India.
- It was established in 2004 as the central national agency responsible for receiving, processing and analyzing information relating to suspect financial transactions.
- It is responsible for coordinating and strengthening efforts of national and international intelligence.
- It also undertakes investigations for pursuing the global efforts against money laundering and related crimes.

Enforcement Directorate

- The Enforcement Directorate (ED) is a law enforcement agency and economic intelligence agency responsible for enforcing economic laws and fighting economic crime in India.
- It is part of the Department of Revenue, Ministry of Finance.
- The prime objective of the ED is the enforcement of two key Acts namely, the Foreign Exchange Management Act 1999 (FEMA) and the Prevention of Money Laundering Act 2002.

19. Consider the following statements about PM Formalisation of Micro food processing Enterprises (PM FME) Scheme:

1. PM FME is a central sector scheme.
2. PM FME follows the One District One Product approach.

Which of the statements given above is/are correct?

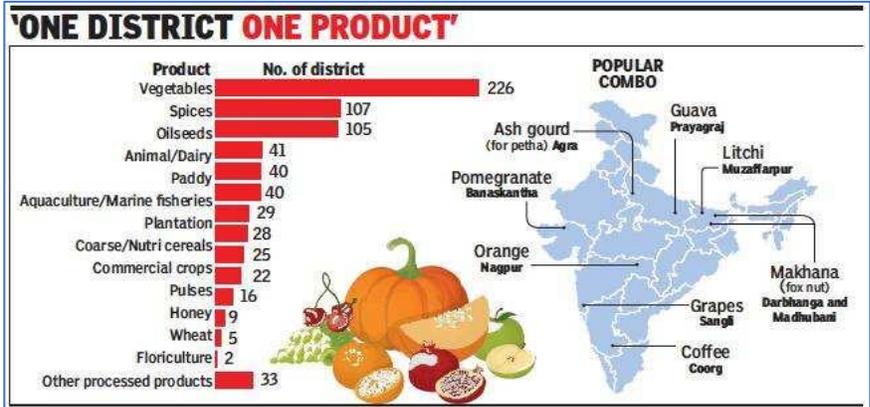
- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: B

Explanation:

VAJIRAM & RAVI

- The Agriculture Ministry under 'One District One Product' (ODOP) approach has finalised 135 district-specific unique products for 728 districts across the country.
- The list of products has been finalised after taking inputs from the states and Indian Council of Agricultural Research (ICAR), focussing on existing clusters and availability of raw materials.
- These district-wise identified products will be supported under the PM Formalisation of Micro food processing Enterprises (PM-FME) scheme which provides incentives to promoters and micro-enterprises.
- The products will be promoted in a cluster approach through convergence of the central government schemes to increase the value of the products with the ultimate aim of increasing the income of the farmers.



Classification of Products

- The products have been identified from agricultural, horticultural, animal, poultry, milk, fisheries and aquaculture and marine sectors.
- The comprehensive list dedicates 60% of total 728 districts to fruits (226 districts), vegetables (107) and spices (105).
- In contrast, food grains such as paddy (40), pulses (16) and wheat (5) found place in a small number of districts across the country even when they are produced widely.

PM Formalisation of Micro Food Processing Enterprises Scheme

- The PM FME scheme is a *centrally sponsored scheme* launched by the *Ministry of Food Processing Industries* (MoFPI). It was launched last year under the Atmanirbhar Bharat Abhiyan package.
- It aims to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and promote formalization of the sector.

Objectives of PM FME

- Provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.
- Increase access to credit.
- Increase access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services.
- Strengthening of institutions, research and training in the food processing sector.
- Increased access to professional and technical support for enterprises.
- Enhanced compliance with food quality and safety standards.

Funding

- The scheme has proposed an outlay of Rs. 10,000 crores over a period of five years from 2020-21 to 2024-25.
- The expenditure under the scheme would be shared as follows:

Mechanism for Procurement

- To facilitate procurement of food grains, Food Corporation of India (FCI) and various State Agencies in consultation with the State Government establish a large number of purchase centers at various mandis and key points.
- Procurement of food grains is done through Centralized Procurement System and Decentralized Procurement System.
- **Centralized Procurement System**
 - Under Centralized Procurement System, the procurement of food grains is undertaken either by FCI directly or State Government agencies procure food grains and handover the stocks to FCI for storage.
 - The cost of the food grains procured by State agencies is reimbursed by FCI as soon as the stocks are delivered to FCI.
- **Decentralized Procurement System (DCP)**
 - The scheme of Decentralized Procurement of foodgrains was introduced in 1997-98 to enhance the efficiency of procurement and Public Distribution System (PDS) and to encourage local procurement.
 - Under DCP, the State Government itself undertakes direct purchase of paddy/rice and wheat and also stores and distributes these food grains under PDS and other welfare schemes. The excess stocks procured by the States are given to FCI.
 - The Central Government meets the entire expenditure incurred by the State Governments for procurement, storage and distribution of food grains.
 - The Central Government also monitors the quality of food grains procured under the scheme and reviews the arrangements made to ensure that the procurement operations are carried smoothly.
 - It helps in extending the benefits of MSP to local farmers as well as to save on transport costs. It also enables procurement of food grains more suited to the local taste.

Commission Agents and Co-operative societies

- In major wheat and paddy procuring states like Punjab, Haryana & some parts of Rajasthan, procurement from farmers is undertaken by the FCI/State Agencies through Arhatiyas as per Agricultural Produce Market Committee (APMC) Acts of the concerned State.
- The commission agents get a commission at 2.5% of MSP in the States of Punjab & Haryana and at 2.25% in Rajasthan.
- The Arhatiyas facilitate the transaction between a farmer and actual buyer, who may be a private trader, a processor, an exporter, or a government agency like FCI.
- The Arhatiyas also act as informal money lenders to farmers for various farming operations.
- In other states like MP, Chhattisgarh, UP, Uttarakhand, Andhra Pradesh, Tamilnadu, Bihar, Jharkhand, Odisha, West Bengal procurement is made through co-operative societies and they are paid a fixed amount per quintal.

21. Consider the following statements regarding government securities (G-secs):

1. G-secs can only be issued with a maturity of more than a year.
2. There is no capital gains tax on G-secs.

Tax on G-secs

- G-Secs attract tax on interest income. They also attract tax on capital gains in case they are traded in the market before the maturity date of G-secs.
- They don't attract capital gains tax if the G-secs are held till the maturity date.

22. Which of the following taxes/duties are applied on petrol sales in India?

- | | |
|---------------------------|--------------------|
| 1. Excise duty | 2. Sales Tax |
| 3. Goods and Services Tax | 4. Value Added Tax |

Choose the correct option using the codes below:

- | | |
|--------------------|------------------|
| a) 1 and 2 only | b) 3 only |
| c) 1, 2 and 4 only | d) 1, 2, 3 and 4 |

Answer: C

Explanation:

- Diesel and petrol prices have hit record highs across the country. As per the government, global crude oil prices have risen by more than 50 per cent to over \$63.3 per barrel since October 2020, which has forced oil retailers to increase fuel prices.
- However, this is only partly true. Prices of both fuels in other countries are just reaching pre-pandemic levels, while Indian consumers are paying a lot more.
- Retail petrol and diesel prices are in theory decontrolled — or linked to global crude oil prices.
- This means that if crude prices fall, as has been the trend since February 2020, retail prices of fuel should come down too, and vice versa, but it does not happen always in practice.

Reasons For High Prices In India

- The central government has increased the central excise duty on petrol to Rs 32.98 per litre from Rs 19.98 per litre at the beginning of 2020.
- It has also increased the excise duty on diesel to Rs 31.83 per litre from Rs 15.83 over the same period to boost revenues as economic activity fell due to the pandemic.
- A number of states have also increased Value Added Tax (VAT) or sales tax on petrol and diesel to improve revenues.
- Currently, state and central taxes amount to around 180 per cent of the base price of petrol and 141 per cent of the base price of diesel in Delhi.
- In comparison, taxes on fuels as a percentage of pump prices was around 65 per cent of the retail price in Germany and Italy, 62 per cent in the United Kingdom, 45 per cent in Japan, and around 20 per cent in the United States.
- Recently, in Budget 2021, it was announced that an agriculture cess would be levied on petrol and diesel at ₹2.5 /litre and ₹4 /litre respectively.

23. Consider the following statements about Major Ports Authorities Bill, 2020:

1. The Bill replaces the Major Port Trusts Act, 1963.
2. The Bill provides for the creation of a Board of Major Port Authority for each major port.

- Functions of the Adjudicatory Board will include:
 - Certain functions being carried out by the Tariff Authority for Major Ports;
 - Adjudicating on disputes or claims related to rights and obligations of major ports and PPP concessionaires; and
 - Reviewing stressed PPP projects.

Corporate Social Responsibility

The Bill provides that the Board may use its funds for providing social benefits. These benefits could be provided for the Board's employees, customers, business partners, local communities, environment and the society at large.

Punishment

Any person violating any provision of the Bill or any rules and regulations will be punished with a fine of up to Rs one lakh.

Benefits

- The bill will promote the expansion of port infrastructure and facilitate trade and commerce.
- It will also help to bring transparency in operations of major ports and infuse professionalism in governance of major ports by modernizing the institutional framework.
- It empowers major ports to perform with greater efficiency and imparts faster and transparent decision making, benefiting the stakeholders and better project execution capability.

24. A Housing Finance Company (HFC) is defined as:

- a) **An NBFC whose financial assets in the business of providing finance for housing, constitute at least 75% of its total assets.**
- b) **An NBFC whose financial assets in the business of providing finance for housing, constitute at least 60% of its total assets.**
- c) **An NBFC whose financial assets in the business of providing finance for housing, constitute at least 50% of its total assets.**
- d) **None of the above**

Answer: B

Explanation

- The Reserve Bank of India (RBI) recently issued various directives for Housing Finance Companies (HFCs). This is part of the process of transferring the regulations of HFCs from the National Housing Bank to the RBI.
- These directions, which come into force with immediate effect, are aimed at preventing the affairs of any HFCs from being conducted in a manner detrimental to the interest of investors and depositors.

HFCs

- The RBI defines an HFC as an NBFC whose financial assets in the business of providing finance for housing, constitute at least 60 percent of its total assets.
- Out of the total assets, not less than 50 percent should be for housing finance for individuals.

Key Directives

- All non-deposit taking HFCs with asset size of ₹100 crore and above and all deposit taking HFCs (irrespective of asset size) shall pursue liquidity risk management.

Liquidity Coverage Ratio (LCR)

- The RBI has stipulated a liquidity buffer in terms of LCR, which will promote resilience of HFCs to potential liquidity disruptions.
- LCR refers to the proportion of highly liquid assets held by financial institutions, to ensure their ongoing ability to meet short-term obligations.
- All non-deposit taking HFCs with an asset size of Rs 10,000 crore and above, and all deposit-taking HFCs irrespective of their asset size, will have to achieve a minimum LCR of 50 per cent By December 1, 2021 and gradually to 100% by December 1, 2025.
- Non-deposit-taking HFCs with an asset size of ₹5,000 crore and above, but less than ₹10,000 crore will have to reach a minimum LCR of 30% by December 1, 2021 and to 100% by December 1, 2025.

Public Deposits

- An HFC can accept or renew public deposit only if it has obtained a minimum investment grade rating for fixed deposits from an approved credit rating agency at least once a year.
- HFCs have to ensure that there is full cover available for public deposits accepted by them.
- In case an HFC fails to repay any public deposit, it shall not grant any loan or other credit facility or make any investment or create any other asset as long as the default exists.

Loan To Value (LTV) ratio

- LTV ratio is the ratio that specifies how much amount a lender can put in against the down payment by the borrower.
- HFCs lending against the collateral of listed shares shall maintain a loan-to-value (LTV) ratio of 50%.
- For loans granted against the collateral of gold jewellery, HFCs shall maintain an LTV ratio not exceeding 75%
- HFCs cannot offer housing loans to individuals above ₹75 lakh with LTV ratio exceeding 75%.
- Further, an HFC cannot lend against its own shares.

Exposure Limits

- An HFC also cannot lend to any single borrower exceeding 15% of its owned fund, and any single group of borrowers exceeding twenty-five per cent of its owned fund.
- It also cannot invest in the shares of another company exceeding 15% of its owned fund and in shares of a single group of companies exceeding 25% of its owned funds.
- Aggregate exposure of an HFC to the capital market in all forms should not exceed 40% of its net worth as on March 31 of the previous year.

25. Consider the following statements about Gobardhan scheme:

1. Gobardhan scheme is implemented under Swachh Bharat Mission Gramin-Phase 2.
2. Gobardhan scheme is implement by Department of Drinking Water and Sanitation.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Answer: C

Explanation:

- The Ministry of Jal Shakti has launched a unified portal for Gobardhan (Galvanizing Organic Bio-Agro Resources Dhan) scheme, which aims to effectively manage cattle and biodegradable waste in rural areas across the country.
- The Gobardhan scheme launched in 2018 is implemented under the Swachh Bharat Mission Gramin-Phase 2, by the Department of Drinking Water and Sanitation under the Jal Shakti ministry.
- The scheme aims to augment income of farmers by converting biodegradable waste into compressed biogas (CBG). The goal is to provide farmers an alternative income of at least Rs 1 lakh crore in the next five years.
- The Department of Drinking Water and Sanitation supports every district with technical assistance and financial support of up to Rs 50 lakh per district.
- It aims at attracting entrepreneurs for establishing community-based CBG plants in rural areas, which leads to employment generation and rural cleanliness.
- The ODF Plus goal outlined in the Phase 2 of SBMG will depend on the performance of Gobardhan scheme to a great extent, as it will effectively address the solid waste management challenge.

Benefits of the portal

- The new portal will give information related to the scheme and assistance provided towards it by other ministries such as petroleum, agriculture, animal husbandry and the MSME.
- The unified portal will further strengthen the rural economy through a convergent approach for various Biogas projects/models and initiatives.
- The portal will provide information to entrepreneurs on finances related to the establishment of CBG plant. It will also ensure transparency and social accountability.

26. Consider the following statements regarding Bhimbetka:

1. Bhimbetka is a UNESCO world heritage site.
2. Bhimbetka is located on the foothills of Aravalli Range.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Answer: A

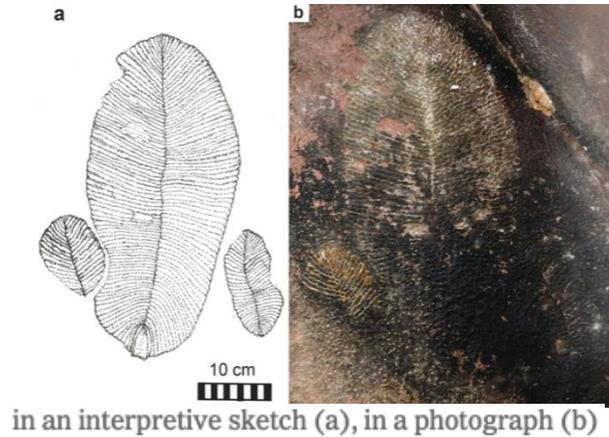
Explanation:

- As per the findings published in Gondwana Research, an international journal, one of the rarest fossils in the world may have been discovered in the Bhimbetka rock shelters.
- Researchers believe they have found the first-ever fossil in India of a **Dickinsonia** —the Earth's 'oldest animal', dating back 570 million years — on the roof of the 'Auditorium Cave' at Bhimbetka.

- Dickinsonia fossils have shown they could exceed four feet in length but the one found in Bhimbetka is 17 inches long.
- Dickinsonia is believed to be one of the key links between the early, simple organisms and the explosion of life in the Cambrian Period, about 541 million years ago.

Bhimbetka

- Bhimbetka is a UNESCO world heritage site, located forty- five kilometres south of Bhopal on the foothills of Vindhya Range. It has about eight hundred rock shelters and around five hundred of those rock shelters have paintings.
- The caves of Bhimbetka were discovered in 1957–58 by eminent archaeologist V.S. Wakankar.
- The rock art of Bhimbetka has been classified into various groups on the bases of style, technique and superimposition. The drawings and paintings have also been categorised into different time periods.
- The themes of paintings found in Bhimbetka are of great variety, ranging from events of daily life in those times to sacred and royal images.
- The paintings help to understand about early human beings, their lifestyle, their food habits, their daily activities and, above all, the way they thought.



Colours Used in Paintings

- The artists of Bhimbetka used many colours, but white and red were their favourite colours.
- The paints were made by grinding various rocks and minerals. They got red from **haematite** (known as geru in India).
- The green came from a green variety of a stone called **chalcedony**. White might have been made out of limestone. Brushes were made of plant fibre.
- These colours have remained intact for many centuries due to the chemical reaction resulting from the oxide present on the surface of the rocks.

27. Consider the following statements about Krishnadevaraya:

1. Krishnadevaraya was an emperor of the Vijayanagara empire.
2. Krishnadevaraya was a ruler of the Tuluva dynasty.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: C

Explanation:

- The first-ever epigraphical reference to the date of death of Vijayanagar king Krishnadevaraya has been discovered at Honnenahalli in Tumakuru district. As per the inscription, Krishnadevaraya died on October 17, 1529. The inscription is written in Kannada.

- The inscription also registers gift of village Honnenahalli in Tumakuru for conducting worship to the god Veeraprasanna Hanumantha of Tumakuru.

Krishnadevaraya

- Krishna Devaraya was the emperor of the Vijayanagara Empire during 1509–1529. He was the third ruler of the **Tuluva Dynasty**. Tulavas were staunch Vaishnavites.
- His rule extended over parts of present day Karnataka, Andhra Pradesh and Northern Tamil Nadu.
- He is credited with building some fine temples and adding impressive gopurams to many important south Indian temples. He also founded a suburban township near Vijayanagara called Nagalapuram after his mother.
- He composed a work on statecraft in Telugu known as the **Amuktamalyada**.

28. Who among the following countries has approved a plan of constructing the world's first energy field island in the North Sea?

- | | |
|-----------|------------|
| a) Russia | b) Denmark |
| c) Sweden | d) Canada |

Answer- B

Explanation

- **Denmark** has approved a plan of constructing the **world's first energy field island** in the North Sea.
- The energy island will be producing and storing enough **green energy** for covering the electricity needs of 3 million European households.
- The artificial island is in its initial phase and will be the size of 18 football fields.
- It will be linked to hundreds of offshore wind turbines and will supply both power to households and green hydrogen for use in shipping, aviation, industry and heavy transport.
- The move came as the European Union unveiled plans to **transform its electricity system to rely mostly on renewable energy** within a decade and **increase its offshore wind energy capacity 25-fold by 2050**.
- The island, to be located 80 kilometres off Denmark's west coast, and its surrounding wind turbines will have an initial capacity of **3 gigawatt and be operational around 2033**.
- Denmark also has plans for an energy island in the Baltic Sea. The state will hold a controlling stake in both islands.

29. Who among the following has been appointed as the New PM of Italy?

- | | |
|------------------------|------------------|
| a) Giancarlo Giorgetti | b) Luigi Di Maio |
| c) Andrea Orlando | d) Mario Draghi |

Answer – D

Explanation

- The ex-head of the European Central Bank, Mario Draghi, has been sworn-in as Italy's next prime minister.

- As of February 12, **India had provided over 229 lakh doses of coronavirus vaccines** to various countries out of which 64 lakh doses have been supplied as grant assistance and 165 lakh on commercial basis.
- The vaccines are even being **sent to Latin American countries.**
- India, the largest drug producer in the world, is currently manufacturing two COVID-19 vaccines- Covishield and Covaxin.

India and COVAX Initiative

- In January 2021, India announced its plan of supplying 1 crore vaccine doses to Africa and 10 lakh doses to the United Nations health workers under the COVAX facility.
- **COVAX – COVID-19 vaccine Global Access** is an initiative that aims at promoting equal access to vaccines by every country. It is led by WHO's Global Alliance for Vaccines and Immunisation (GAVI).

About WHO:

- The World Health Organization (WHO) is a **specialized agency** of the United Nations responsible for international public health.
- Its main **objective** is "the attainment by all peoples of the highest possible level of health".
- It is **headquartered in Geneva, Switzerland.**

32. Who among the following countries has assumed chairmanship of BRICS for the year 2021?

- a) Brazil
- b) China
- c) South Africa
- d) India

Answer – D

Explanation

- **India** has assumed the **Chairmanship of BRICS for 2021** and will be hosting this year's summit. It has begun its BRICS Chairship with the inaugural **three-day-long Sherpas' meeting.**
- The **13th BRICS Summit** will be held under India's Chairship in 2021, and it will be the **third time India will host the BRICS Summit** after 2012 and 2016.

Key Highlights:

- BRICS Sherpas and Sous Sherpas held their first meeting under India's Chairmanship in February 2021.
- During the meeting, India presented its priorities for its BRICS Chairmanship 2021 under the theme - "**BRICS@15: Intra BRICS Cooperation for Continuity, Consolidation and Consensus**"

(i) Reform of the Multilateral System

(ii) Counter Terrorism cooperation

(iii) Using Digital and Technological Solutions for attaining SDGs

(iv) Enhancing People to People exchanges.

China & India in BRICS: Post Galwan

- China had stated that they **support India for hosting** the BRICS Summit 2021 and expressed interest in working with India to strengthen the cooperation.

First Woman, African to lead WTO

- Nigerian economist Ngozi Okonjo-Iweala has been appointed to head the World Trade Organization. She became the **first woman and first African** to take on the role.
- She was named **director-general** by representatives of the 164 countries that make up the WTO.

Indian-origin to lead United Nations Capital Development Fund

- The UN Capital Development Fund has appointed Indian-origin investment and development banker **Preeti Sinha as its Executive Secretary**.
- **Established in 1966**, the **New York-headquartered organisation** provides micro-finance access to Least Developed Countries (LDCs), with the mandate to unlock the full potential of public and private finance.
- Sinha succeeds Judith Karl, who retired in February after concluding her 30-year career in the United Nations.

Indian Economist Appointed As UN's Assistant Secretary-General

- UN chief Antonio Guterres has appointed leading **Indian economist Ligia Noronha** as **Assistant Secretary-General** and **Head of the New York Office of the United Nations Environment Programme** (UNEP).
- Ms Noronha will succeed fellow Indian and development economist Satya Tripathi.

Other Notable Appointments of Indians

- Former Director-General of the Indian Council of Medical Research **Soumya Swaminathan** is the Chief Scientist at the World Health Organisation.
- In January 2020, **Gita Sabharwal** of India as the United Nations Resident Coordinator in Thailand.

37. Recently, the Defence Minister launched e-Chhawani portal. This portal aims to

- Register complains about the living condition of soldiers in field area**
- Build efficient tents and temporary shelters for combat soldiers**
- Provide online municipal services to residents of Cantonment areas**
- None of the above**

Answer – C

Explanation

- Defence Minister Rajnath Singh launched e-Chhawani portal. This portal will help **residents of Cantonment areas to register their complaints regarding civic issues** and resolve them while sitting at home.
- e-Chhawani project aims to provide online municipal services to more than 20 lakh citizens across 62 Cantonment Boards through a multi-tenancy central platform.
- Through this portal, online application for renewal of leases, online registration of births and deaths and online application for water and sewerage connection will be very simpler.
- This portal has been jointly developed by eGov Foundation, Bharat Electronics Limited (BEL), Directorate General Defence Estates (DGDE) and National Informatics Centre.

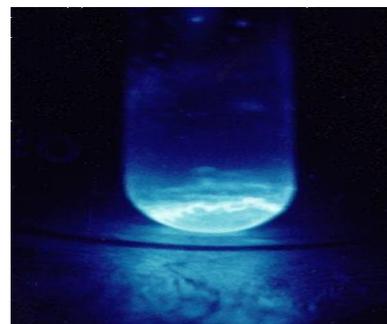
Answer: B

Explanation:

- A team of scientists at the Berkeley Lab has reported some of the properties of an element called “**Einsteinium**”.
- It was **discovered in 1952** in the debris of the **first hydrogen bomb** (the detonation of a **thermonuclear device called “Ivy Mike”** in the Pacific Ocean).
- Since its discovery, scientists have not been able to perform **a lot of experiments** with it because it is difficult to create and is **highly radioactive**. Therefore, very little is known about this element.

Properties

- Einsteinium is a **synthetic element** with the symbol **Es** and **atomic number 99**. Einsteinium is a member of the **actinide series** and it is the **seventh transuranic** element. It is named to honour **Albert Einstein**.
- Its most common isotope **einsteinium-253 (half-life 20.47 days)** is produced artificially from the decay of **californium-253**.
- Einsteinium is a **soft, silvery, paramagnetic metal**.
- Its chemistry is typical of the late actinides, with a preponderance of the **+3-oxidation** state; the **+2-oxidation state** is also accessible, especially in solids.
- The high radioactivity of **einsteinium-253** produces a **visible glow** (seen here in image) and rapidly damages its crystalline metal lattice, with released heat of about 1000 watts per gram.
- Because of its high radioactivity and short half-life of all einsteinium isotopes, even if the element was present on Earth during its formation, it has **most certainly decayed**.
- This is the reason that it **cannot be found in nature** and needs to be manufactured using very precise and intense processes.



Transuranium Elements

- The **transuranium elements** (also known as transuranic elements) are the chemical elements with **atomic numbers greater than 92**, which is the atomic number of **uranium**.
- All of these elements are **unstable and decay radioactively** into other elements.
- All the elements with higher atomic numbers have been **first discovered in the laboratory**, with **neptunium and plutonium** later also discovered in **nature**.
- They are all radioactive, with a **half-life much shorter than the age of the Earth**, so any primordial atoms of these elements, if they ever were present at the Earth's formation, have long since decayed.
- Examples: Neptunium (93), Plutonium (94), Seaborgium (106) etc.

41. Consider the following sentences about Stardust 1.0

1. **It was launched by the European Space Agency.**
2. **It was different from traditionally launched rocket fuels as it was powered by biofuel.**
3. **The rocket is only 20 feet tall and has a mass of roughly only 250 kg that is suited for student and budget payloads.**

Explanation

- The total **indigenous content** of the **Ka-226T utility helicopters**, to be jointly manufactured locally by India and **Russia** with Transfer of Technology (ToT), is **between 27%-33%**.
- The final deal is held up as the Russian proposal of 62% indigenous content in assembled helicopters falls short of the tender requirement of 70%.
- The Ka-226T is meant to **replace the ageing and obsolete Cheetah and Chetak** fleet of the Army and Air Force and the total technical life of these will start finishing from 2023 onwards.
- The helicopters would be manufactured by **India Russia Helicopters Limited (IRHL)** — a joint venture between Hindustan Aeronautics Limited (HAL) and Russian Helicopters.

Background

- In 2015, **India and Russia** had concluded an **Inter-Governmental Agreement (IGA)** for at least 200 Ka-226T twin-engine utility helicopters estimated to cost over \$1 billion with 60 helicopters to be directly imported and the remaining 140 manufactured locally.
- The first helicopter would be delivered within 36 months from the signing of the contract and the order completed in eight years.

44. HF-24 Marut, recently seen in the news, is

- a) A new Variety of Turmeric
- b) Fighter Aircraft
- c) A newly discovered galaxy
- d) Newly mutated Covid virus

Answer: B

Explanation

- India's **own first indigenously designed and developed fighter aircraft Marut** will now be available for public viewing.
- It was designed by a German engineer and used in the Bangladesh **Liberation War**.

45. Consider the following sentences about KAPILA Campaign

1. The campaign is related to intellectual property.
2. It was launched by the Ministry of Science and Technology.

Which of the above sentences is/are incorrect?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: B

Explanation

The **Ministry of Education** has launched a campaign **namely Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA)** for **Intellectual Property Literacy** and creating patent awareness on 15th October 2020.

- KAPILA was launched by the Union Education Minister on the **89th birth anniversary** of former President and Scientist Late Dr APJ Abdul Kalam last year.
- **Objectives**

- Creating Awareness regarding Intellectual Property Rights (IPR) in Higher Education Institutions (HEIs),
 - Enabling of IP protection of inventions originating from faculty and students of HEIs,
 - Development of Credit Course on IPR,
 - Training program on IPR for faculty and students of HEIs and
 - Sensitization and development of vibrant IP filing systems.
- So far, 46,556 users have been registered for KAPILA.

46. Consider the following sentences about Furnace Oil

1. Fuel oil, also called furnace oil, is a fuel consisting mainly of residues from crude-oil distillation.
2. Flashpoint is usually lower than that of kerosene.

Which of the above sentences is/are correct?

- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: A

Explanation

- The Kerala government had set up a **three-member committee** to conduct a probe into the **leak of about 5,000 litres of furnace oil** from state-owned Travancore Titanium Products Ltd into the sea.
- **Fuel oil, also called furnace oil**, is a fuel consisting mainly of **residues from crude-oil distillation**.
- It is used primarily for steam boilers in power plants, aboard ships, and in industrial plants.
- Commercial fuel oils usually are blended with other petroleum fractions to produce the desired viscosity and flashpoint.

Flashpoint is usually higher than that of kerosene. The term fuel oil ordinarily does not include such fuels as kerosene. The flashpoint of a volatile material is the **lowest temperature** at which its vapours ignite if given an ignition source.

47. With reference to the digital intelligence unit, consider the following statements:

1. It aims to coordinate with law enforcement agencies to make digital financial transactions more secure.
2. It is developed by the NITI Aayog in collaboration with Telecom Regulatory Authority of India.

Which of the statements given above is/are correct?

- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: A

Explanation

- The **Ministry of Telecommunications** will set up a **Digital Intelligence Unit (DIU)** as a nodal agency to deal with complaints of **Unsolicited Commercial Communication (UCC)** and cases of financial fraud, especially in the digital payments space.
- The main function of DIU will be to **coordinate with various LEAs (law enforcement agencies), financial institutions** and **telecom service providers** in investigating any fraudulent activity involving telecom resources.
 - The issue of UCC has been a major area of concern for the Telecom Ministry as well as the Telecom Regulatory Authority of India (TRAI).
 - TRAI has from time to time fined telecom operators for not following its directives on stopping UCC.
- For effective handling of UCC and the financial frauds being done through misuse of telecom resources, **a web/ mobile application and SMS based system shall be developed for redressal mechanism.** This will enable telecom subscribers to lodge their complaints related to matters involving UCC.
- DIU will strengthen the trust of people in the digital ecosystem and will **make financial digital transactions primarily through mobile more secure and reliable**, which will result in promotion of Digital India.

48. Consider the following statements about the instant messaging platform, Sandes:

- 1. The messaging platform is only available to central and state government employees.**
- 2. It provides the facility to users to mark a message as confidential.**
- 3. It has been developed by the National Informatics Centre.**

Which of the statements given above is/are correct?

- | | |
|------------------------|----------------------|
| a) 1 and 2 only | b) 2 only |
| c) 2 and 3 only | d) 1, 2 and 3 |

Answer: C

Explanation

- The **National Informatics Centre** has launched an **instant messaging platform called Sandes** on the lines of WhatsApp. Like WhatsApp, the new NIC platform can be used for all kinds of communications by anyone with a mobile number or email id.
- The launch of the app is part of the government strategy to **push for use of India-made software** so as **to build an ecosystem of indigenously developed products.** Open initially only to government officers, it has now been released for the common public as well.
- Although there is **no option to transfer the chat history between two platforms**, the chats on government instant messaging systems or GIMS can be backed up to a users' email.
- As an additional safety feature, it **allows a user to mark a message as confidential**, which will allow the recipient to be made aware the message should not be shared with others.
- The user will have to re-register as a new user in case they wish to change their registered email id or phone number on the app.

What Was The Need For This Instant Messaging Platform

- Following the nationwide lockdown imposed in March 2020, the government felt the need to build a platform to ensure secure communication between its employees as they worked from home.
- Due to safety and privacy concerns, later in April 2020, govt. issued an advisory to all its employees to avoid using platforms like Zoom for official communication.
- The launch of the app is also a part of the government strategy to push for **use of India-made software** so as to build an ecosystem of indigenously developed products.
- Open initially only to government officers, it has now been released for the common public as well.

National Informatics Centre (NIC)

- It is an attached office under the **Ministry of Electronics and Information Technology (MeitY)**.
- It provides **network backbone and e-Governance support** to Central Government, State Governments, UT Administrations, Districts and other Government bodies.
- It **offers a wide range of ICT services** including Nationwide Communication Network for decentralised planning, improvement in Government services and wider transparency of national and local Governments.

49. Consider the following pairs:

Countries/Institutions	Mission
1. NASA	Mars Insight
2. European Union	Mars Reconnaissance Orbiter
3. Saudi Arabia	Hope Mission

Which of the pairs given above is/are correctly matched?

- | | |
|-----------------|-----------------|
| b) 1 and 2 only | c) 1 only |
| d) 2 and 3 only | e) 1 and 3 only |

Answer: B

Explanation

- NASA's science rover **Perseverance** has landed safely on the floor of a vast crater on Mars. The **rover landed in a depression called the Jezero crater** which is at the edge of what was once a river delta when Jezero was filled with water.
 - **Jezero is the oldest terrain to be explored on Mars** — some of the minerals there might have formed almost 3.5 billion years ago.
 - This is important because scientists think that it is in the oldest periods of time that Mars would have been most conducive to life.
- It was **launched in 2020** and aims to **seek signs of ancient life and collect samples** of rock and regolith to possibly return these to Earth.
- Perseverance is **NASA's 4th generation Mars Rover** which aims to study the formation, evolution and structure of the Red planet. The programme will also investigate the **possibility of past or present life** as well as the potential for human exploration of Mars.
- **Perseverance Rover carries the following instrument:**

- The sanctuary plays host to around 220 species of birds belonging to 54 families. Migratory birds from all over Hindukush Himalayas and also as far as Siberia come here during winter.
- The sanctuary area is covered with tropical and sub-tropical forests, which shelters a great number of Indian Wildlife animals.

51. Periyar Tiger Reserve, recently in news, was located in?

- a) Kerala
b) Madhya Pradesh
c) Sikkim
d) None of the above

Answer: A

Explanation:

For the first time in the country, the Periyar Tiger Reserve (PTR) has taken up the training of a tiger cub to equip it to naturally hunt its prey in the forest environment.

About Periyar Tiger Reserve

- Periyar National Park is located in the **state of Kerala**. The park is notable as **an elephant reserve and a tiger reserve**.
- **Location:** The park is located high in **the Cardamom hills and Pandalam hills** of southern Western Ghats along the border with Tamil Nadu.
- **Drainage:** The major rivers through the reserve are Mullayar and Periyar. Several streams feeding these two rivers and the Amba and Azhuta River form the major source of water for the reserve.
- **Forest Types:** The forest types include Tropical evergreen forests, tropical semi-evergreen forests, moist deciduous forests, grasslands and eucalyptus plantations.
- **Biodiversity:** The Park is famous for its unique and diverse wildlife and bird species. The rich wildlife includes Elephants, Tiger, Sambars, Gaur, Leopard, Wild dog, Barking deer, Mouse deer, Monitor lizards and a variety of birds and reptile species.

52. Consider the following statements with regard to Fishing Cat

1. It is found only in the Sundarbans of West Bengal.
2. It is listed as Endangered in the IUCN List of threatened species.

Which of the statements given above is/are correct?

- a) 1 Only
b) 2 Only
c) Both 1 and 2
d) Neither 1 nor 2

Answer: D

Explanation

Fishing Cat Conservation Alliance

- Fishing Cat Conservation Alliance kick-starts a worldwide campaign as the fishing cat in India is under threat.

- The Ministry has proposed prohibiting nine activities in the Eco-Sensitive Zone, including setting up new industrial, waste management and stone quarrying units. Residents can undertake construction on their land to meet residential needs.
- Although tourism-related activities are allowed with some regulations per laws, the construction of new commercial hotels and resorts will not be permitted in the ESZ. Agricultural activities by residents, too, will be permitted, albeit with regulations as applicable under certain laws.
- Activities and establishment like cottage industries, including village artisans, agroforestry, plantation of horticulture and herbals, organic farming, restoration of degraded land or forests or habitat are some of the promoted activities.

About Wayanad Wildlife Sanctuary

- Wayanad wildlife sanctuary is **contiguous to the protected areas of Nagarhole and Bandipur of Karnataka** on the north-east and Mudumalai of Tamilnadu on the south –east. Rich in biodiversity, the sanctuary is an integral part of the **Nilgiri Biosphere Reserve**.
- Interestingly, it was from here that **Pazhassi Raja fought valiantly against the British**.
- **Topography:** Altitude ranging from 650 to 1150m. The **highest peak is Karottimala**.
- **Drainage:** Cherupuzha, Bavali puzha, Kabani river, Kannaram puzha, Kurichiat puzha, Chedalathu puzha etc.
- **Forest Types:** The forest types include South Indian Moist Deciduous forests, West coast semi-evergreen forests and plantations of teak, eucalyptus and Grewelia.

54. State of Environment Report 2021, recently in news, was released by

- a) United Nations Environment Programme (UNEP)
- b) Centre for Science and Environment (CSE)
- c) United States Environmental Protection Agency
- d) World Wide Fund for Nature

Answer: B

Explanation:

Centre for Science and Environment (**CSE**) has released State of Environment Report, 2021.

Key Findings Of The Study

- **India ranked 117 among 192 nations** in terms of sustainable development and was now behind all South Asian nations except Pakistan.
- CSE experts pointed out that this data clearly indicated a **lack of action over the years to control and reduce pollution** even in areas that were already identified as ‘critically’ or ‘severely’ polluted. India’s air, water and land have become more polluted between 2009 and 2018.
- The pandemic also has its hidden victims — **over 500 million children forced out of school globally** and India accounted for more than half of them. 115 million additional people might get pushed into extreme poverty by the pandemic – and most of them live in South Asia.
- The country is all set to usher in a ‘pandemic generation’, with **375 million children (from newborns to 14-year-olds) likely to suffer long-lasting impacts**, ranging from being underweight, stunting and increased child mortality, to losses in education and work productivity.

- **Right of ownership, access to collect, use, and dispose of minor forest produce** which has been traditionally collected within or outside village boundaries;
- **Other community rights** of uses such as fish and other products of water bodies, grazing and traditional seasonal resource access of nomadic or pastoralist communities;
- **Community tenures of habitat** and habitation for primitive tribal groups and pre-agricultural communities;
- **Rights of settlement and conversion** of all forest villages, old habitation, unsurveyed villages and other villages in forests, whether recorded, notified or not into revenue villages;
- **Right to protect, regenerate or conserve or manage any community forest resource (CFR)** which they have been traditionally protecting and conserving for sustainable use;
- **Rights which are recognised under any State law** or laws of any Autonomous District Council or Autonomous Regional Council or which are accepted as rights of tribals under any traditional or customary law of the concerned tribes of any State;
- **Right of access to biodiversity** and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity; and
- **Any other traditional right customarily enjoyed** by the forest dwelling Scheduled Tribes or other traditional forest dwellers, excluding the traditional right of hunting or trapping.

About Udanti-Sitanadi Tiger Reserve

- The Udanti-Sitanadi Tiger Reserve includes total area of Udanti & Sitanadi Wildlife Sanctuaries. The Core I (Udanti) of the Tiger Reserve was declared as Udanti Wildlife Sanctuary in 1984 by the then **undivided** Government of Madhya Pradesh. It is a small but an important Wildlife Sanctuary located in the Gariyaband district of Chhattisgarh.
- Established in 1974 under Wildlife Protection Act of 1972, the Sitanadi sanctuary is comprising of highly undulating and hilly terrain with altitudes ranging between 327-736 mts.
- The Sitanadi sanctuary derives its name from the **Sitanadi River that originates in the middle of sanctuary and joins Mahanadi River near Deokhut.**

National Urban Digital Mission (NUDM)

- **Ministry of Housing and Urban Affairs (MoHUA)** launched the National Urban Digital Mission.
- Several other digital initiatives of MoHUA vis. **India Urban Data Exchange (IUDX), SmartCode, Smart Cities 2.0 website, and Geospatial Management Information System (GMIS)** were also launched.

A. About NUDM

- NUDM will create a shared digital infrastructure for urban India, working across the three pillars of **people, process, and platform** to provide holistic support to cities and towns.
- It will **institutionalise a citizen-centric and ecosystem-driven approach** to urban governance and service delivery in 2022 cities by 2022, and across all cities and towns in India by 2024.

Features of NUDM

- NUDM will create a **shared digital infrastructure** that can consolidate and **cross-leverage the various digital initiatives** of the Ministry of Housing and Urban Affairs, enabling cities and towns across India to benefit from holistic and diverse forms of support, in keeping with their needs and local challenges.
- NUDM is **citizen-centric, ecosystem-driven, and principles-based** in both design and implementation. NUDM has articulated a set of governing principles, and **inherits the technology design principles of the National Urban Innovation Stack (NUIS)**, whose strategy and approach was released by MoHUA in February, 2019.
- The principles in turn give rise to standards, specifications, and certifications, across the three pillars of people, process, and platforms.

India Urban Data Exchange (IUDX)

- It has been developed in partnership between the **Smart Cities Mission and the Indian Institute of Science (IISc), Bengaluru**.
- IUDX serves as a **seamless interface for data providers and data users**, including ULBs, to share, request, and access datasets related to cities, urban governance, and urban service delivery.
- IUDX is an **open-source software platform** which facilitates the secure, authenticated, and managed exchange of data amongst various data platforms, 3rd party authenticated and authorised applications, and other sources.
- IUDX is designed to **address the problem of data silos, both within and across cities**. Cities generate large volumes of data, which are recorded by a wide range of entities. The combination of these datasets can enable rapid innovation, as well as a better planning for urban needs and challenges.

SmartCode Platform

- SmartCode is a platform that enables all ecosystem stakeholders to contribute to a **repository of open-source code for various solutions** and applications for urban governance.
- It is designed to address the challenges that ULBs face in the development and deployment of digital applications to address urban challenges, by enabling cities to take advantage of existing codes and customising them to suit local needs, rather than having to develop new solutions from scratch.

- As a repository of open-source software, the source code available on the platform will be **free to use without any licensing or subscription fees**, thus limiting costs to those involved with customising the code and developing a locally-relevant solution.

New Smart Cities Website ver. 2.0 and GMIS

- In order to better connect with people on the Smart Cities Missions efforts and to make it easier for ULBs and citizens to access resources related to their work, the Smart Cities Mission website has been redesigned. **GMIS is integrated with this website.**
- **The Geospatial Management Information System (GMIS):** It is a web-based, spatially-enabled management tool, provides one-stop access to information. GMIS integrates information from multiple sources and features search options by topic and geographic area.

Jal Jeevan Mission (JJM)

- **Telangana** has joined the group of States which ensured tap water connections to all schools and anganwadi centres (AWCs) spread across the State. The State was the **first in the country** to provide tap water connections to 100% households.
- Works on providing tap water connection to schools, anganwadi centres and ashramshalas was taken up under the 100-day special **campaign of the Ministry of Jal Shakti under the Jal Jeevan Mission.**
- Telangana was among the group of States including Andhra Pradesh, Himachal Pradesh, Goa, Haryana and Tamil Nadu which reported provision of tap water in all schools and AWCs while Punjab reported provision of piped water supply in all schools.

About Jal Jeevan Mission

- Jal Jeevan Mission is envisioned to provide safe and adequate **drinking water through individual household tap connections by 2024 to all households in rural India.** The Mission was launched on August 15, 2019.
- The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting.
- The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and Communication as a key component of the mission.

Components Under JJM

- **Development of in-village piped water supply** infrastructure to provide tap water connection to every rural household
- **Development of reliable drinking water sources** and/ or augmentation of existing sources to provide long-term sustainability of water supply system
- **Wherever necessary, bulk water transfer**, treatment plants and distribution network to cater to every rural household
- **Technological interventions** for removal of contaminants where water quality is an issue.
- **Retrofitting of completed and ongoing schemes** to provide FHTCs at minimum service level of 55 lpcd;
- **Greywater management.**
- **Support activities**, i.e. training, development of utilities, water quality laboratories, water quality testing & surveillance, R&D, knowledge centre, capacity building of communities, etc.

- **Any other unforeseen challenges/** issues emerging due to natural disasters/ calamities which affect the goal of FHTC to every household by 2024, as per guidelines of Ministry of Finance on Flexi Funds.

New Guidelines On Funds Received By NGOs

- **The Ministry of Home Affairs (MHA)** has issued new guidelines to banks on Foreign Contribution (Regulation) Act (FCRA) rules.
- The new guideline says that **“Donations received in Indian rupees”** by non-governmental organisations (NGOs) and associations from “any foreign source even if that source is located in India at the time of such donation” **should be treated as “foreign contribution”**.
- Foreign contribution has to be **received only through banking channels** and it has to be accounted for in the manner prescribed. Any violation by the NGO or by the bank may invite penal provisions of The FCRA, 2010.”
- Donations given in Indian rupees (INR) by any foreigner/foreign source including **foreigners of Indian origin like OCI or PIO cardholders** should also be treated as foreign contribution.
- As per the existing rules, all banks have to **report to the Central government within 48 hours**, the “receipt or utilisation of any foreign contribution” by any NGO, association or person whether or not they are registered or granted prior permission under the FCRA.
- In September 2020, the Foreign Contribution (Regulation) Act, 2010, was amended by Parliament and a new provision that makes it **mandatory for all NGOs to receive foreign funds in a designated bank account at the State Bank of India’s New Delhi branch** was inserted.
- FCRA regulates foreign donations and ensures that such contributions **do not adversely affect the internal security of the country**. The Act, first enacted in 1976 was amended in the year 2010 and then 2020.

To read about ‘what is FCRA and how does it control donations’, refer Recitals September 2020.

Economic Impact’ Of Judicial Decisions

- NITI Aayog has asked research organisation Consumer Unity and Trust Society (CUTS) International, Jaipur to conduct a study on the **“economic impact” of various judgments delivered by Supreme Court, the high courts, and quasi-judicial bodies** such as the National Green Tribunal (NGT) and the “judicial activism” of such courts and tribunals.
- **Objective of the study:** It aims at “narrative building for **sensitising the judiciary on the economic impact of their decisions**” and the findings will be used as a “training input for judges of commercial courts, NGT, HCs, SC”.
- **Significance:** Judicial decisions have far-reaching economic impacts which are often not taken into account at the time of decision making. The absence of ex-ante analysis of the economic costs associated with a decision is further exacerbated when judicial activism by courts and tribunals is also in play.
- **Judicial performance index:** The study is also a part of the larger umbrella project undertaken by NITI Aayog under which it wants to establish a judicial performance index, which would **measure the performance of judges** at district courts and subordinate levels.
- In 2017, the same CUTS International had also conducted an assessment study on the economic impact of the Supreme Court’s decision to impose a ban on the presence of liquor shops within 500 m of any highway.

Traffic Crash Injuries and Disabilities: The Burden on Indian Society

- The study **Traffic Crash Injuries and Disabilities: The Burden on Indian Society** was conducted by World Bank and Save LIFE Foundation (SLF)– a national non-governmental organization focused on road safety.
- The study aims to capture the socioeconomic impact of road crashes at the sub-national level in India.
- It identifies inter-linkages between poverty, inequalities, road users, and road crash outcomes by analyzing data from four States in India, i.e., Uttar Pradesh, Bihar, Tamil Nadu and Maharashtra.
- In terms of economic parameters, Maharashtra and Tamil Nadu are selected to represent High Capacity States (HCS) whereas Bihar and Uttar Pradesh are selected to represent Low Capacity States (LCS).
- The study also quantifies the differential financial impact on Low-Income Households (LIH, i.e., the bottom 40% of the population by per capita income) and High Income Households (HIH, i.e., the top 10% of the population in terms of per capita income).

Key Findings

- Overall, the post-crash impact was more severe for LIH in Low Capacity States compared to HIH in High Capacity States. LIH reported twice the numbers of deaths post-crash compared to HIH.
- As high as 44% of the households in rural areas reported at least one death after a road crash compared to 11.6% of households in urban areas.
- Victims from LIH and rural areas are also twice more likely to suffer a disability after a crash compared to victims from HIH.

Socio-economic Burden

- More than 75% of poor households in India reported a decline in their income as a result of a road traffic crash. The financial loss for the poor amounted to more than seven month's household income, while it was equivalent to less than one month's household income for rich households.
- The ability to deal with financial distress post-crash was better for HIH than LIH. Debt rates were almost three times higher among LIH compared to HIH.
- In addition to financial distress, poor households experience a deterioration in their quality of life accompanied by psychological suffering and emotional distress.

Impact on Women

- Within households, the responsibility of caregiving activities post-crash falls mostly on women, across poor and rich households.
- About 50 per cent of women were severely affected by the decline in their household income after a crash.
- About 40 per cent of women reported a change in their working patterns post-crash, while around 11 per cent reported taking up extra work to deal with the financial crisis.

Measures For Impact Reduction

- The Central Government should urgently implement the cashless treatment scheme under the Motor Vehicle (Amendment) Act (MVAA), 2019, to reduce out-of-pocket- expenses for LIH.
- The Central Government should create schemes to increase insurance coverage and penetration for LIH. Insurance agencies should broaden the scope of insurance policies by including rehabilitation and recovery of crash victims.

- Since most compensation payments take time to process, under MVAA, 2019, the Central Government must make provisions to provide interim compensation to crash victims for immediate relief.
- Governments should introduce vocational and educational support for victims and their families through community programmes and special schemes for jobs, skilling & education.

Road Crash Statistics

Global

- Globally, road crashes kill 1.35 million people and injure 50 million people every year; or more than 3000 persons every day.
- Road Traffic Injuries (RTIs) are the 8th leading cause of death globally and leading cause of death among children and young adults aged 5-29.

India

- India tops the world in road crash deaths (as per WHO data, 2018), with more than 400 fatalities per day.
- India has 1% of the world's vehicles but accounts for 11% of all road accident deaths and 6% of total road crashes (data from Ministry of Road Transport and Highways, 2018).

International Mother Language Day

- International Mother Language Day 2021 was recently celebrated across the globe on February 21. It has been observed every year since February 2000 to promote linguistic and cultural diversity and multilingualism
- **Theme:** “fostering multilingualism for inclusion in education and society.”
- The Day was proclaimed by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in November 1999. Later, the UN General Assembly welcomed the proclamation of the day in a resolution in 2002.
- UNESCO declared the Day, to commemorate a 1952 protest against West Pakistan’s imposition of Urdu as the official language of East Pakistan (present-day Bangladesh).
- In Bangladesh, since 1953, February 21 is observed as Ekushe Day, after the Bengali word for twenty-one.

Significance of Languages

- Languages, with their implications for identity, communication, social integration, education and development, are of strategic importance for people and planet.
- They act as the most powerful instruments of preserving and developing the tangible and intangible heritage.
- Further, multilingual and multicultural societies exist through their languages which transmit and preserve traditional knowledge and cultures in a sustainable way.
- Moreover, promotion of mother tongues also helps to inspire solidarity based on understanding, tolerance and dialogue.

Status Of Languages Across The World

- Globally, English remains the most widely spoken language with 1.13 billion speakers in 2019, followed by Mandarin with 1.11 billion. Hindi is third with 615 million speakers, while Bengali is seventh with 265 million.
- Only 10 languages account for as many as 4.8 billion speakers — over 60% of the world population.
- According to the United Nations, around 43 per cent of the 6,000 languages spoken in the world are at the risk of being eliminated. The UN also says that a language disappears every two weeks, which destroys an entire cultural and intellectual heritage.
- Globally 40 per cent of the population does not have access to an education in a language they speak or understand.
- Only a few hundred languages have genuinely been given a place in education systems and the public domain, and less than a hundred are used in the digital world.
- Nevertheless, progress is being made in mother tongue-based multilingual education with growing understanding of its importance, particularly in early schooling, and more commitment to its development in public life.

Statistics Of Various Languages From India

- In India, Hindi is the most spoken language with over 528 million speakers in 2011, as per the Census. Bengali had 97.2 million speakers in 2011, followed by Marathi (83 million), while other languages with over 50 million speakers are Telugu (81 million), Tamil (69 million), Gujarati (55.5 million) and Urdu (50.8 million).
- Percentage trends from 1991 to 2011 underline the growth of the most widely spoken language, Hindi, which was spoken by 39.29% of the Indian population in 1991, and whose share grew to 43.63% in 2011.
- For other languages in India's top 12, the 2011 percentage share has fallen when compared to that in 1991.

Guidelines on Food Systems and Nutrition

- Members of the Committee on World Food Security (CFS) recently endorsed the first-ever Voluntary Guidelines on Food Systems and Nutrition.
- The guidelines have been developed to support countries in their efforts to eradicate all forms of hunger and malnutrition by utilising a comprehensive food systems approach.

Food Systems Approach

- Food systems shape people's dietary patterns and nutritional status. They are a complex web of activities involving production, processing, handling, preparation, storage, distribution, marketing, access, purchase, consumption, food loss and waste.
- It also cover the outputs of these activities, including social, economic and environmental outcomes.

Salient Features Of The Guidelines

- The guidelines are intended to build upon and complement the work and mandate of other international bodies, for example the UN Decade of Action on Nutrition (2016-2025).
- They call for realisation of the right to adequate food in the context of national food security for all, particularly for the most vulnerable and affected groups.

- They focus on policy planning and governance so that food systems can be made more resilient and responsive and are in accordance with needs of consumers and producers too, especially small and marginal farmers.

Focus Areas

The guidelines are structured around seven focus areas:

- i) Transparent, democratic and accountable governance.
- ii) Sustainable food supply chains to achieve healthy diets in the context of economic, social and environmental sustainability and climate change.
- iii) Equal and equitable access to healthy diets through sustainable food systems.
- iv) Food safety across sustainable food systems.
- v) People-centred nutrition knowledge, education and information.
- vi) Gender equality and women's empowerment across food systems.
- vii) Resilient food systems in humanitarian contexts.

Committee on World Food Security (CFS)

- CFS is an international and intergovernmental platform for stakeholders to work towards ensuring food security and nutrition for all.
- It is hosted and co-funded by the United Nations Food and Agriculture Organization.

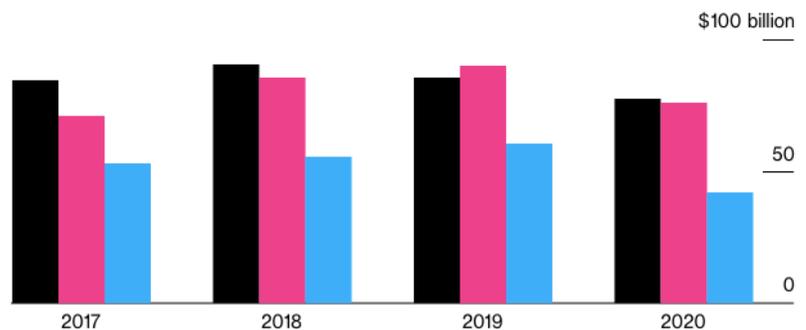
China Becomes Top Trading Partner

- According to provisional data from India's commerce ministry, China regained its position as India's top trade partner in 2020. Two-way trade between India and China stood at \$77.7 billion last year.
- Although this was lower than the previous year's \$85.5 billion total, it was enough to make China the largest commercial partner displacing the U.S.
- The two-way trade between India and the US stood at \$75.9 billion as Covid-19 restrictions impacted trade between the two countries.
- Last year, India banned hundreds of Chinese apps, slowed approvals for investments from China and called for self-reliance after a clash along their disputed Himalayan border.
- However, India continues to rely heavily on Chinese-made heavy machinery, telecom equipment and home appliances. As a result, the bilateral trade gap with China was at almost \$40 billion in 2020, making it India's largest.
- Total imports from China at \$58.7 billion were more than India's combined purchases from the U.S. and the U.A.E, which are its second- and third-largest trade partners, respectively.

Dragon Returns

China displaces the U.S. to regain India's top trade partner slot in 2020

■ China ■ U.S. ■ U.A.E.



Source: India's Ministry of Commerce

- However, India has managed to lower imports from China amid demand disruptions caused by the coronavirus pandemic. India also managed to increase its exports to China by about 11% from a year ago to \$19 billion last year.
- India has taken a number of steps to boost the manufacturing of electronics, in the form of the Production-Linked Incentive (PLI) scheme and later extended it to a number of other sectors.
- However, the PLI schemes will take at least four-five years to create fresh capacities in specific sectors. Till then reliance on China would continue.

Increase In Farm Exports

- According to data from the Ministry of Commerce, farm exports from India have registered a year-on-year growth of 9.8% during April-December 2020.
- During the same period, India's overall merchandise exports have fallen by 15.5%. Export of all goods during April-December 2020 was \$201.30 billion, down from the \$238.27 billion for April-December 2019. In contrast, exports of agri-commodities have risen from \$26.34 billion to \$28.91 billion during this period.
- With imports simultaneously contracting 5.5%, the agricultural trade surplus has widened from \$9.57 billion in April-December 2019 to \$13.07 billion in April-December 2020.

Factors Pushing Farm Exports

- The increase in agri-exports is largely due to favourable world prices. Global agri-commodity prices have risen to a six-and-a-half year high, making exports competitive and imports costlier.
- The current export revival is also a result of dry weather conditions in major producing countries such as Argentina, Brazil, Ukraine, Thailand and Vietnam.
- Russia (world's largest wheat exporter) and Argentina (No. 1 in soyabean and No. 3 in maize) have even announced temporary suspension or taxes on grain shipments in response to high domestic food inflation.
- Global prices have also increased due to Chinese stockpiling. China has stepped up air imports to build strategic food reserves amid geopolitical tensions.
- India, on the other hand, hasn't faced serious weather issues; both 2019 and 2020 recorded surplus monsoon rainfall along with timely onset of winter.
- Farmers harvested a bumper rabi crop during April-June. They look set to repeat the performance in the coming season as well, due to fully recharged groundwater tables and low temperatures conducive for high yields of various crops.

Go Electric Campaign

- The government recently launched the "Go Electric" Campaign to spread awareness on the benefits of e-mobility and Electric Vehicle charging infrastructure.
- The campaign also emphasises on the use of clean and safe electric cooking which is safe and can benefit consumers due to low heat wastage, thereby improving energy efficiency.
- The Bureau of Energy Efficiency (BEE), under the aegis of the Ministry of Power, has been mandated to undertake an awareness drive for promoting public charging, e-mobility & its ecosystem.
- To implement the Go Electric campaign at National and State level, BEE will extend technical support to the State Designated Agencies (SDAs).

Benefits

- Electric fuel is a major alternative for fossil fuels which have an import bill of Rs. 8 lakh crore. When compared to conventional fuels the electric fuel has low cost, reduced emissions and is also indigenous.
- Thus, the campaign would go a long way in fulfilling the main objective of energy transition to move ahead on the path of low carbon economy.
- It will help in reducing the country's dependence on other countries for energy needs.
- It will promote generation of green power from agriculture waste and biomass which will benefit the farmers across the country.
- It is also expected to boost the confidence of Electric Vehicle manufacturers.

Chauri Chaura Centenary

- Prime Minister Narendra Modi recently inaugurated the Chauri Chaura Centenary Celebrations in Gorakhpur district of Uttar Pradesh on 4th February.
- The day marks 100 years of the Chauri Chaura incident, a landmark event in the country's fight for independence.
- The UP government has also planned to develop the 'Chauri Chaura Shaheed Memorial' in Gorakhpur as a heritage tourist spot.

Chauri Chaura Incident

- Chauri Chaura is a town in Gorakhpur district of Uttar Pradesh. The name is derived from the names of two villages Chauri and Chaura.
- In August, 1920, Gandhi had launched the Non-Cooperation Movement against the government, which involved a boycott of foreign goods, especially machine-made cloth, and legal, educational and administrative institutions.
- Two days before the Chauri Chaura incident, volunteers participating in the Non-Cooperation Movement were beaten by the local police. Several leaders were arrested and put in the lock-up at the Chauri Chaura police station.
- On February 4, 1922, large number of volunteers gathered in protest and marched to the police station.
- After a confrontation, the police fired, killing three people and injuring many more. In response, the protestors burnt the police station, in which 23 policemen were killed.

Impact Of The Incident

- Gandhi was deeply disturbed by the incident and condemned the killing of policemen.
- The volunteer groups in the nearby villages were dissolved, and a Chauri Chaura Support Fund was set up to demonstrate genuine sympathy and seek prayashchit (atonement).
- Gandhi decided to stop the Non-Cooperation Movement and on February 12, 1922, the movement was formally suspended.
- Gandhi felt that he had acted too early in encouraging people to revolt against the British Raj without sufficiently emphasising the importance of ahimsa (non-violence) and without adequately training the people to practice non-violence.

VAJIRAM & RAVI

- Jawaharlal Nehru and most other prominent freedom fighters, who were in prison when Gandhi took this decision, felt that this was an incorrect decision and was taken at a time when the nation was finally uniting against the British government in India.
- A few months after this withdrawal, Gandhi was also arrested and sentenced to six years of imprisonment but was later released in February 1924, on grounds of his ill health.

Growth of Revolutionaries

- The disappointment resulting from the suspension of the Non-Cooperation Movement led many young Indian nationalists to believe that India would not be able to get independence through non-violence.
- In the years that followed the incident, many popular revolutionaries including Jogesh Chatterjee, Ramprasad Bismil, Sachin Sanyal, Ashfaqulla Khan, Jatin Das, Bhagat Singh, Bhagwati Charan Vohra, Masterda Surya Sen etc. emerged in the country.

Pagri Sambhal Movement

- As part of the ongoing farmers' protest, the Samyukta Kisan Morcha (SKM) celebrated February 23 as 'Pagri Sambhal Diwas'. The farmers also honoured the memory of Ajit Singh, founder of the Pagri Sambhaal movement of 1907.
- Pagri Sambhaal Jatta was a successful farm agitation that forced the British government to repeal three laws related to agriculture back in 1907.
- The three farm-related acts at the centre of the storm in 1907 were the Punjab Land Alienation Act 1900, the Punjab Land Colonisation Act 1906 and the Doab Bari Act.
- These acts would reduce farmers from owners to contractors of land, and gave the British government the right to take back the allotted land if the farmer even touched a tree in his field without permission.
- Amid resentment against the laws, Bhagat Singh's father Kishan Singh, uncle Ajit Singh and revolutionary Ghasita Ram formed Bharat Mata Society, aiming to mobilise this unrest into a revolt against the British government
- On sensing the popular resentment, the British made minor amendment in the laws.

Buddhist Monastery

- The Archaeological Survey of India (ASI) recently found a Buddhist monastery, believed to be at least 900 years old, buried under a mound in a village situated in a hilly area of Hazaribagh district of Jharkhand.
- The finding comes two months after discovery of an ancient Buddhist shrine, buried under a similar mound, barely 100 metres away
- At the site, ASI found four statues of deity Tara in Varad Mudra (gesture of hand showing dispensing of boons).
- Six statues of the Buddha in Bhumisparsha Mudra (gesture of hand showing five fingers of right hand towards the earth symbolising the Buddha's enlightenment) were also found at the site.
- ASI also discovered a sculpture which appears to be of Shaivite deity Maheswari – with a coiled crown and chakra – indicating cultural assimilation in the area

Significance

- The findings are significant since the monastery is on the old route to Varanasi, 10 km from Sarnath, where the Buddha gave his first sermon.
- Presence of statues of deity Tara shows possible proliferation of Vajrayana form of Buddhism in this region.
- Vajrayana is a form of Tantric Buddhism, which flourished in India from 6th to 11th century.

News Media and Digital Platforms Mandatory Bargaining Code of Australia

- The Parliament of Australia passed the **Treasury Laws Amendment (News Media and Digital Platforms Mandatory Bargaining Code) Bill 2021**.
- The code aims to address the *bargaining power imbalance between news media businesses and digital platforms* and ensure that businesses are remunerated for the content they generate.
- It also provides a **framework for negotiations** between parties and an arbitration process to resolve any outstanding disputes.

Benefits

- The Code will ensure that news media businesses are fairly remunerated for the content they generate, helping to sustain public interest journalism in Australia.
- After initial resistance, both Google and Facebook have reached commercial arrangements with Australian news media businesses. These agreements will bring a new slate of premium journalism, including some previously paywalled content
- With this, Australia will become the **first country where a government-appointed arbitrator can decide** on the final price that either platform will have to pay Australian news publishers, provided a commercial deal cannot be reached independently.
- Australia's new law could set a precedent for how other countries regulate Big Tech. Countries like France have undertaken some measures to make the tech firms pay for news, while others like Canada and the U.K. are considering their next steps.

[Also refer the topic "**Australia Unveils Plan to force Google and Facebook to Pay for News**" from July 2020 edition of CA magazine]

Myanmar Coup

Myanmar's **military has seized power** after detaining Aung San Suu Kyi and other democratically elected leaders. The military has declared a **one-year state of emergency**. Army seized control on 1 February following a general election which Ms Suu Kyi's NLD party won by a landslide. The army alleged that the recent landslide election win by NLD was **marred by fraud**.

What has the international reaction been to the coup?

- Numerous countries have condemned the military takeover. UN Secretary-General said it was a "**serious blow to democratic reforms**".
- The US and UK have responded with sanctions on military officials.
- However, **China blocked a UN Security Council statement condemning the coup**. Beijing, which has previously opposed international intervention in Myanmar, urged all sides to "resolve differences".
- Neighbours including Cambodia, Thailand and the Philippines, have said it is an "internal matter".

India's Reaction

- India expressed “deep concern” over the reports of an unfolding military coup in Myanmar.
- India had always been steadfast in its support to the process of democratic transition in Myanmar. It believes that the rule of law and the democratic process must be upheld.
- India has **adopted a more cautious position** because of **security concerns linked to its north-eastern states**.
- India has close ties with both the civilian and military leadership of Myanmar, and the security relationship between the two sides is crucial to tackling militancy in the north-eastern states.
- India can not afford to lose its space in Myanmar. Not only will it give boost to **Chinese presence** in the region, but it will also **jeopardize India's Act East policy**.
- India had shown commitment to build robust relationship with Myanmar over the past two decades which **intensified after the democratic process began in 2011**.
- In January 2021, India sent **15 lakh doses of the Covishield vaccine to assist Myanmar** in fighting the COVID-19 pandemic in the country.
- In October 2020, India announced the **handing over of a kilo-class submarine INS Sindhuvir to the Myanmar navy**. The Indian gift is the first submarine for the Myanmar navy.

Background

- Aung San Suu Kyi's National League for Democracy (NLD) went on to secure a landslide victory, taking **more than 80 percent of the vote** and increasing its support from the 2015 vote.
- But the result drew immediate allegations of fraud and calls for a rerun from the military-backed Union Solidarity and Development Party (USDP). The army claimed without proof that its own investigation had found 10.5 million suspect votes.

Myanmar's Tryst with Military Rule

- Myanmar, also known as Burma, was ruled by the **armed forces from 1962 until 2011**, when a new government began ushering in a return to civilian rule.
- Myanmar, under military government, drafted a constitution in 2008 which formed the basis of power transition in 2011. This military was forced to adopt a constitution by the west.
- It should be noted that its leader Aung San Suu Kyi spent nearly 15 years in detention between 1989 and 2010. She was awarded the **Nobel Peace Prize in 1991** while under house arrest.

Myanmar's military Constitution:

- Myanmar's constitution, framed under the military government, ensures role and supremacy of military in national affairs.
- Under its provisions, the **military reserves for itself 25 per cent of seats** in both Houses of Parliament, to which it appoints serving military officials.
- The constitution allows formation of a political party which is proxy to the military. In other words, indirectly, Military can contest election in Myanmar. Union Solidarity and Development Party (USDP) in Myanmar is backed by military.
- *Article 417 of Myanmar Constitution* allows the military to take control over the nation in times of emergency. This clause is often termed as “**coup mechanism in waiting**”.

US Revokes Order used to Fund Mexico Border Wall Project

- United States President Joe Biden has **revoked the national emergency order** used to fund former President Donald Trump's Mexico border wall project. The announcement is the latest in a series of executive orders from President Biden that have rolled back key parts of the former president's agenda.
- In this regard, an alternative has been offered — a **'smart' wall that replaces the physical and armed patrolling with advanced surveillance tech** is the proposed future of border security now.
- The 'smart wall' technology could solve border security issues without the need for a physical barrier. It uses **sensors, radars, other surveillance technology, thermal imaging etc** to detect and track border break-ins, and technology capable of performing the most difficult tasks dedicated to border security.

Background

- In February 2019, President Donald Trump declared the **southern border of the United States** (US-Mexico border) to be a national emergency. This move allowed him to circumvent Congress's constitutional powers to control spending and divert federal funds toward the construction of border wall.
- The **US-Mexico border** is 1,954 miles (3,145km) long and crosses vast deserts and mountains in California, Arizona, New Mexico and Texas.

Why Trump Was Insistent On Building A Wall

- Before Trump took office, there were 654 miles (just over 1,000km) of barrier along the southern border - made up of 354 miles of barriers to stop pedestrians and 300 miles of anti-vehicle fencing.
- In the run-up to the 2016 presidential election, Trump had promised to build a wall along the border's entire 2,000-mile length.
- He later clarified that it would only cover half of that - with nature, such as mountains and rivers, helping to take care of the rest.
- Illegal immigration, drug trafficking and criminal activities along the border has been cited as few reasons to build a wall.

The National Emergencies Act 1976

- The National Emergencies Act 1976, authorizes the President to declare such national emergency. However, it contains no definition of what constitutes a national emergency; rather, it merely states that "the President is authorized to declare such national emergency".
- Unlike many other constitutions, the US Constitution **confers no additional powers on the executive** during an emergency.
- But while the constitution itself may be silent on emergency powers, **Congress has over time conferred a vast array** of legislative powers on the president, which they can trigger when a national emergency is declared.
- Under current law, emergency powers lapse within a year unless the president renews them. A **national emergency can be re-declared indefinitely**, and, in practice, that is done frequently. Anyone directly affected by the order can challenge it in court.
- Congress can also draft a **concurrent resolution to terminate** the state of emergency, leading to a somewhat novel act. Ordinarily, congressional resolutions support a president's declaration of a national emergency.

Turkey Unveils Space Program

Turkish President Recep Tayyip Erdogan unveiled an ambitious 10-year space programme for his country. This programme includes missions to the moon, sending Turkish astronauts into space and developing internationally viable satellite systems.

Key Highlights

- Turkey planned to establish “a first contact with the moon” in 2023, when the country marks the centennial of the founding of the Turkish republic.
- Turkey's aim to send **Turkish citizens into space with international cooperation**, to work with other countries on building a spaceport and to create a “global brand” in satellite technology.
- Turkey established the **Turkish Space Agency, or TUA, in 2018**, with the aim of joining the handful of other countries with space programmes.

US to Rejoin UN Human Rights Council

- The United States President Joe Biden has moved to **rejoin the United Nations Human Rights Council- UNHRC**.
- Reversing other decisions of former US President, Joe Biden has also joined the **World Health Organisation and Paris Climate Accord**.

Background

- In June 2018, the Trump administration withdrew from the United Nations Human Rights Council.
- This step was taken in protest of what it perceives as an **entrenched bias against Israel** and a willingness to allow notorious human rights abusers as members.
- US termed the UNHRC as **hypocritical and self-serving organization** that makes a mockery of human rights. The **admission of Congo as a member** even as mass graves were being discovered there, and the failure to address human rights abuses in Venezuela and Iran are few examples vindicating US' stand.
- It also blamed Russia, China, Cuba and Egypt for attempting to undermine US' efforts to reform the organization.

What Has Changed Now

- As per the current US Secretary of State, the decision of the Trump administration of withdrawing from UNHRC in 2018 did nothing to encourage meaningful change.
- It instead created a **vacuum of US leadership** which the nations with authoritarian agendas have used to their advantage.
- The newly elected Joe Biden administration has recommitted the US to a foreign policy that is centered on human rights, democracy, and equality.
- However, US administration has made it clear that the UNHRC is a flawed body and is in need of reform to its membership, agenda, and focus, which also includes its disproportionate focus on Israel.

US's Role Once It Returns to The Council

- Washington will be returning to the council as a nonvoting observer and the full membership will be assessed later in 2021.

About UNHRC

- The Human Rights Council is an inter-governmental body within the United Nations system made up of 47 States responsible for the promotion and protection of all human rights around the globe.
- The Human Rights Council replaced the former United Nations Commission on Human Rights.
- The Council was created by the United Nations General Assembly on 15 March 2006 by resolution.

Pakistan PM Visit to Sri Lanka

- Pakistan Prime Minister Imran Khan paid a state visit to Sri Lanka. He was the **first head of state to visit Sri Lanka since the COVID-19 pandemic**.
- Also, this was the first visit by a Pakistani PM to Sri Lanka since Nawaz Sharif visited the country in 2016.

Key Highlights

- The bilateral talks were focused on various sectors including trade, investment, health, education, agriculture, technology, defence and tourism.
- He also participated in a joint **'Trade and Investment Conference'** aimed at promoting trade and investment between the two countries.
- Earlier, Pakistani PM was supposed to deliver a speech in Sri Lankan Parliament which got cancelled due to COVID-19 pandemic. Many analysts believe that Sri Lanka did not want the speech to take place as they feared that doing so could **further harm ties with India**.
- Pitching the China-Pakistan Economic Corridor (CPEC) as a connectivity booster, Prime Minister Imran Khan expressed his hope that Pakistan would find **"ways and means to enhance trade and connectivity" with Sri Lanka**.

Controversy in Sri Lanka During COVID-19

This visit coincided the current controversy over the **forced cremations of the island's minority Muslim community members** who die due to the COVID-19. The government continues its policy of forced cremations despite objections from rights groups.

Should India Be Worried?

- During the visit, Pakistani PM invited **Sri Lanka to use the Gwadar Port** and become part of the China-Pakistan Economic Corridor, a development that raised concerns among Indian experts.
- The matter is a cause of concern for New Delhi as about **70 percent of the goods that Sri Lanka's ports now handle are transshipped to and from India**. CPEC could offer Sri Lanka **better connectivity with the rest of Central Asia**, through the Gwadar port.
- Many analysts believe that this is an attempt by Islamabad to increase its influence in the region, which has been dominated by India.
- However, many experts found this amazing as Pakistani PM was asking Sri Lanka to join a project **that is not even that of his own country**.
- Apart from the fact that **Colombo sits astride some of the busiest sea lanes** in the world, Colombo is already seen as an important part of the maritime leg of BRI. Sri Lanka is much **closer to China and Pakistan has little role to play**.

- Another concern that is bothering India is that of **security**. Pakistan's increased presence in Sri Lanka can be used to foment **terror activities in the Southern part of India**. The Islamic State in collusion with Pakistani establishment wants to establish sleeper cells in the Southern states.
- However, it should be noted that Colombo canceled Imran Khan's parliament address. Sri Lanka has always **made an effort to balance ties between India and Pakistan**.
- Earlier, India allowed the Pakistani PM to fly over Indian airspace, a gesture that Islamabad itself denied India earlier.

Foreign Policy of New US Administration Unveiled

- President Joe Biden used his first address before a global audience to declare the foreign policies of his administration.
- He promised the Group of Seven (G7) leaders during the virtual **Munich Security Conference** that the United States was recommitted to multilateral engagement, including the Paris Agreement on climate change.
- Biden met G7 leaders from the United Kingdom, France, Germany, Italy, Canada and Japan by videoconference. He plans to join them for an **in-person summit hosted by the UK this summer**.

Key Highlights

- US has announced that it will be **breaking away from Donald Trump's isolationist foreign policy** that saw the US withdraw from significant global agreements and alliances.
- The new administration has ticked through a daunting to-do list:
 - salvaging the Iran nuclear deal,
 - meeting economic and security challenges posed by China and Russia
 - repairing the damage caused by the coronavirus pandemic
- Biden announced that the U.S. will soon begin releasing \$4 billion for an international effort to bolster the purchase and distribution of coronavirus vaccine to poor nations, a program that Trump refused to support.

Saudi Arabia Allows Women to Join Armed Forces

- Saudi Ministry of Defence made an announcement allowing women of the kingdom to join military and armed forces.
- Saudi women can join Saudi Arabian Army, Royal Saudi Air Defence, Royal Saudi Navy, Royal Saudi Strategic Missile Force, and Armed Forces Medical Services.
- The move comes under Crown Prince Mohammed bin Salman's **Vision 2030 initiative**, introducing reforms that allow Saudi women to advance in various fields.
- Arab world's largest economy first announced **allowing women into the military in 2019**, the same year when the Saudi kingdom said it would **allow women to leave the country without permission from a male relative**.
- Earlier, in 2018, Saudi Arab **allowed women to drive** and **ended its status as the last country on earth** to prohibit women from taking to the wheel.

Australia's Oldest Rock Art

- Australian scientists have discovered the country's **oldest known rock art - a 17,300-year-old painting of a kangaroo**.
- The artwork measuring 2m was painted in red ochre on the ceiling of a rock shelter. It was found in Western Australia's **Kimberley region**, known for its Aboriginal rock paintings.
- This iconic kangaroo image is **visually similar** to rock paintings from **islands in South East Asia dated to more than 40,000 years ago**, suggesting a cultural link - and hinting at still older rock art in Australia.
- Earlier this year, researchers found **the world's oldest animal cave painting**, a 45,000-year-old **life-sized depiction of a pig**, on the **island of Sulawesi in Indonesia**.
- In South Africa, a **hashtag-like doodle created 73,000 years ago** is believed to **be the oldest known drawing**.

Kimberley Region is the **northernmost region** among the nine regions of Western Australia. The region is bordered by **Indian Ocean to the west, Timor Sea to the North, Great Sandy to the south**.

India and Pakistan Agree to Stop Cross-Border Firing in Kashmir

- India and Pakistan militaries have agreed to **“strictly” observe all agreements** and **adhere to ceasefire** along the Line of Control from midnight of February 24. This is the first such understanding since the 2003 ceasefire violations pact.
- Just before India and Pakistan came out with a joint statement on keeping the LoC a peaceful zone, India allowed Pakistani Prime Minister Imran Khan to **fly through India's air space for his visit to Sri Lanka**.

Key Highlights

- The two sides also reiterated that existing mechanisms of **hotline contact and border flag meetings** will be utilised to resolve any unforeseen situation or misunderstanding.
- According to Indian government figures, there were 5,133 instances of ceasefire violations along LoC last year, with 46 fatalities. In 2021, there were 299 violations with one fatality till early February.

Analysis

- After India revoked the special status of Jammu & Kashmir, and bifurcated it into two Union Territories in August 2019, Pakistan reiterated that its pre-condition for a dialogue was a roll back of the decisions on Kashmir.
- It is unclear if the agreement to adhere to the ceasefire means that Pakistan has revised its stand. However, it may contribute to an improvement of the security situation on the ground in Kashmir.
- Infiltration attempts may now drop, and go some way in meeting a key Indian demand on cross-border terrorism.
- The de-escalation at the LoC **sends out a larger signal**: that rather than tailor its own responses to the much predicted two-front war, Delhi would like to **de-couple its ties with Pakistan and China**, dealing with each separately.

2003 Ceasefire Agreement

- The original ceasefire agreement was reached in November 2003, four years after the Kargil War. This agreement remains a milestone as it brought **peace along the LoC until 2006**.

- Between 2003 and 2006, not a **single bullet was fired by the jawans of India and Pakistan**. But since 2006, ceasefire violations became the norm with increasing frequency.

India-Ireland consultations on UNSC Issues

India and Ireland held bilateral consultations on UNSC issues using virtual platform. Both sides congratulated each other on their election to the UNSC and agreed to work closely together during their innings at the UNSC in 2021-2022.

India-Ireland relations

- Both the countries were former possessions of the British Empire and fought against the common adversary.
- The relation was strengthened by many people including Rabindranath Tagore, Jawaharlal Nehru, Sister Nivedita and Annie Besant.
- Not only that, Indian constitution borrowed many ideas such as DPSP from Irish constitution.
- Indian embassy in Ireland in the year 1951. Ireland opened its embassy in India in 1964.

India, Mauritius Ink Free Trade Pact

- India and Mauritius have **signed a Comprehensive Economic Cooperation and Partnership Agreement (CECPA)** that provides an institutional mechanism to encourage and improve trade between the two countries.
- The agreement was signed during the visit of External Affairs Minister to the Island Nation and is the **first such agreement of India with an African country**.

Key Highlights

- The **pact is a limited agreement**, which will cover Trade in Goods, Rules of Origin, Trade in Services, Technical Barriers to Trade, Sanitary and Phytosanitary measures, Dispute Settlement, Movement of Natural Persons, Telecom, Financial services, Customs Procedures and Cooperation in other Areas.
- **India will get access to 310 products** on the other hand, Mauritius will get access to 615 products. India will also get access to 115 sub-sectors in the 11 broad services sectors.
- CECPA will provide preferential access to Mauritius for the **bulk of trade** and also for many **“aspirational items” in future** in the Indian market of over a billion people. These include frozen fish, speciality sugar, biscuits, fresh fruits, juices, mineral water, soaps, bags, medical and surgical equipment, and apparel.
- Mauritius will get **preferential access for the export of 40,000 tonnes of sugar** into India at an early time frame. Similarly, there will also be access for the export of 7.5 million pieces of apparel.
- As regards **trade in services**, India has offered 95 sub-sectors from 11 broad services sectors and this contributes 76% of GDP of the island country.
- CECPA could also facilitate Indian investment in the services sector in Mauritius, especially in the ICT sector as Indian companies could benefit by leveraging the bilingual prowess of Mauritius for investments in Francophone Africa.

The bilateral trade between the countries dipped to USD 690 million in 2019-20 from USD 1.2 billion in 2018-19.

While India's exports in 2019-20 aggregated to USD 662 million, the imports stood at USD 27.89 million.

- Both sides have also agreed to negotiate an **Automatic Trigger Safeguard Mechanism** for a limited number of highly sensitive products within two years of the signing of the agreement.

Other Agreements Signed During this Visit:

- India and Mauritius also signed a **\$100 million Defence Line of Credit**, to facilitate the procurement of Indian defence equipment.
- The two sides also signed an agreement under which a **Dornier aircraft and an advanced light helicopter** will be given **on lease to Mauritius on gratis basis for two years**.
- On the **Covid-19 vaccine front**, India, in February 2021, delivered a second batch of 100,000 doses of Covid-19 vaccines to the country. Mauritius has requested an additional 2,00,000 doses of vaccines.
- Mauritius occupies a special place in the Prime Minister's vision of '**SAGAR**' (**Security and Growth for All in the Region**).

Analysis

- This agreement between India and Mauritius is rather slim. It is **far less ambitious** than the negotiations between the two countries over the years would have suggested.
- Mauritius is a signatory to the **African Continental Free Trade Area agreement**. Mauritius is also **eligible for trade preferences with the European Union** under the Interim Economic Partnership Agreement it has signed since March 2018.
- From January 2021, Mauritius and the UK will trade under the United Kingdom - Eastern and Southern Africa Economic Partnership Agreement.
- Hence, the current CECPA could help New Delhi to **not only enter the African market but also tap into Europe**, without having to sign a free trade agreement with either.

UP to Export Kala Namak Rice to Singapore

- Uttar Pradesh will start exporting 20 tonnes of Siddharthnagar's famous **Kala Namak rice or Buddha rice** to Singapore soon.
- The rice, known as Buddha ka Mahaprasad or offering to Lord Buddha has been rebranded as Buddha rice in order to promote it in Buddhist countries.
- The packaging of the rice carries a popular quote of Mahatma Buddha and adds "**The unique aroma of the rice will remind people about me**".
- Kala Namak rice is grown in the areas such as Gorakhpur, Deoria, Kushinagar, Maharajganj, Siddharthnagar, Sant Kabir Nagar, Bahraich, Balrampur, Gonda and Shravasti.
- It is part of the government's **one district-one product (ODOP)** scheme under which specialty local products and produce of each district is being promoted. Kala Namak rice is the ODOP of Siddharthnagar, Basti, Gorakhpur, Maharajganj and Sant Kabir Nagar.

Australia Posts Liaison Officer at Indian Navy's Information Fusion Centre

- Australia has posted a liaison officer at Indian Navy's Gurgaon-based Information Fusion Centre (IFC). It has emerged as a **major hub of maritime security information** relating to the Indian Ocean.

- The Indian Navy established the **'Information Fusion Centre -- Indian Ocean Region (IOR)** in 2018 to effectively keep **track of the shipping traffic** as well as other critical developments in the IOR under a collaborative framework with like-minded countries.

Defence and Security ties between India and Australia

- In June 2020, India and Australia elevated their ties to a **comprehensive strategic partnership** and signed a landmark deal for **reciprocal access to military bases for logistics support** during an online summit between PM of both the countries.
- The **Mutual Logistics Support Agreement (MLSA)** allows militaries of the two countries to use each other's bases for repair and replenishment of supplies, besides facilitating scaling up of overall defence cooperation.
- The Australian Navy was part of the **Malabar naval exercise** hosted by India in November 2020.

[Also refer the topic **"India-Australia virtual summit"** from June 2020 edition of CA magazine]

SAARC Virtual Meet

- India hosted a health secretary-level meet virtually with other South Asian Association for Regional Cooperation (SAARC) countries to discuss the ongoing COVID-19 crisis. Pakistan was also invited to attend the workshop.
- It was a **virtual workshop on management of Covid-19**, response to the pandemic and exchange of best practices amid the pandemic.

Covid-19 and SAARC

- On March 15, 2020, during a video conference of the SAARC Heads of State, PM Modi had proposed a **Coronavirus Emergency Fund for the region**.
- The initiative seeks to mitigate the risks associated with the coronavirus pandemic in the South Asian region with India contributing USD10 million to it.
- India gifted Covid vaccines to countries including Bangladesh (20 lakhs doses), Myanmar (17 lakhs doses), Nepal (10 lakhs), Bhutan (1.5 lakhs), the Maldives (1 lakh), Mauritius (1 lakh), Seychelles (50000), Sri Lanka (5 lakhs) and Afghanistan (5 lakhs) among others.

Indian Government Assistance to Syria

- The Indian government has gifted **2000 metric tonnes of rice to Syria** for strengthening food security in the middle eastern country.
- The supply is being made in response to the request from the Syrian government for emergency humanitarian assistance.
- In July 2020, India had gifted 10 metric tonnes of medicines to Syria as part of the COVID assistance.
- In January 2020, over 500 Syrians had benefitted from the **artificial limbs fitment camp** which was organized by the MEA in partnership with Bhagwan Mahaveer Viklang Sahayata Samiti in Damascus.
- 1000 scholarships, during the academic years 2018-2019 and 2019-2020, were extended to the Syrian students for pursuing bachelors, masters, and post-doctoral programmes in the Indian universities under the 'Study in India' initiative.
- The External Affairs Ministry has also informed that India is establishing a **NextGen Centre for Information Technology in Damascus**.

No Indian Role in Developing East Container Terminal in Colombo

- **Sri Lanka has decided to develop** the strategic East Container Terminal (ECT) at the Colombo Port **on its own**.
- The Sri Lankan government has, instead, offered the West Container Terminal to India for possible investments.

ECT Controversy

- As per the 2019 Memorandum of Cooperation (MOC), the Sri Lanka Ports Authority (SLPA) was to hold 51 % stake in the operations, while India and Japan together would hold 49 %.
- However, amid **growing resistance from port workers** since, the ruling Rajapaksa government's position appears to have shifted. Now the Sri Lankan Govt. has made it clear that the operation of the terminal would be **100 % with the SLPA**.
- There are allegations among diplomatic circle that the **Chinese had played a role in instigating port unions protest against India's interest**.

Impact on India-Sri Lanka relationship

- For India, the strategic ECT project was important. India's first response to this was that the island nation should not be taking a decision in a unilateral manner on an existing tripartite agreement.
- While aggressive, radical, nationalists groups including Buddhist monks were among those who stood against ECT agreement to support the Colombo port trade unionists, that fact that general sentiments of the middle class population too were against Indian tie-up.
- With the cancellation of the agreement, all these groups including unions of working professionals and a scattered middle-class population have all gained an upper-hand.
- Meantime, **internationally an offended India** can make life tough for Sri Lanka, isolating the tiny island nation, geo-politically and on the economic front.
- The economic isolation will not help Sri Lanka at a time when the country is taking steps to revive the economy amid a pandemic.

What is Sri Lanka's compensatory offer to India?

- The Sri Lankan cabinet has now approved a proposal to **develop the west terminal of the Colombo port** as a Public Private Partnership **with Japan and India**.
- Commercially, the **west terminal offer is better** for India as it gives 85% stake for developers of the West Terminal against the 49% in ECT.
- And **geo-politically** too, West Terminal is **almost the same** if they consider the security aspect and the necessity to have a port terminal in Sri Lanka.
- West Terminal is no smaller in size or depth compared to the East Terminal.

India, Afghanistan Ink Deal for New Dam

- India and Afghanistan signed an agreement to build the Shahtoot Dam in Kabul to provide drinking water facility in Afghan capital. The project is a **sign of India's continuing commitment to Afghanistan** against the backdrop of the troubled peace process with the Taliban and a sustained wave of violence targeting officials.
- The Shahtoot dam is to be constructed on the Kabul river basin, one of the five river basins of Afghanistan.

- Along with the Shahtoot dam, India has pledged to commit \$80 million for various projects in the country. Around 150 projects have already been announced by India in Afghanistan.
- Earlier, India had given 5,00,000 doses of Covid-19 vaccine to Afghanistan. India has **completed more than 400 projects** in all 34 provinces of Afghanistan, and its **pledges totaling \$3 billion make it largest donor in the region.**
- Last year, India shipped 75,000 tonnes of wheat as aid to Afghanistan via Iran's Chabahar port.

ASEAN-India Hackathon

- The ASEAN-India Hackathon was organised by the Ministry of Education in collaboration with Ministry of External Affairs.
- The All-India Council for Technical Education (AICTE) implemented this important initiative with the support of nodal agencies from all ten ASEAN countries.
- Hackathon 2021 **aims at enhancing the cooperation** between India and ASEAN countries in science, technology, and education. The Problem Statements covered two major themes – **Blue Economy and Education.**
- The Hackathon emanates from Prime Ministers' announcement at the **16th ASEAN-India Summit in Bangkok in November 2019.**
- **ASEAN-India Youth Cooperation** is a key component of ASEAN-India Strategic Partnership and the Hackathon complements India's other youth centric initiatives for ASEAN.

Recognition of Gymnastics Federation of India Restored

- The Sports Ministry has restored the recognition of the faction-ridden Gymnastics Federation of India (GFI) after 10 years. The decision was taken to promote the development of gymnastics in the country.
- The recognition has been granted for the period till 31st December 2021. Currently, the sports ministry grants annual recognition to National Sports Federations.
- The GFI was de-recognised by the ministry in 2011 because of infighting in the body.

Steps Required to be taken by GFI after Recognition:

- The constitution of the GFI needs to be aligned with the provisions of the National Sports Development Code of India, 2011 (Sports Code).
- The office-bearers of the federation will be appointed by election as per the Model Election Guidelines issued by the Ministry.
- It will also be required to give **at least two months' advance notice** to the Government for any change in its constitution.

G20 Central Bank Governors' Meet

- The First G20 Finance Ministers and Central Bank Governors (FMCBG) meeting under the Italian Presidency took place in February 2021.
- India was represented by the Union Finance and Corporate Affairs Minister Nirmala Sitharaman.

Key Highlights

- The meeting discussed discuss policy actions for transformative and equitable recovery.
- The other issues included global economic outlook, financial sector issues, financial inclusion and sustainable finance.
- The participating also discussed the implications of climate change on global growth and financial stability.

G20 Nations Asked to Prepare Global Covid-19 Vaccination Plan

United Nations (UN) Secretary-General has proposed that the G20 set up an **emergency task force** to prepare a "Global Vaccination Plan" against Covid-19.

Need for Such Proposal

- UN along with WHO has already created the **COVAX facility** - a global tool to procure and deliver vaccines for low- and middle-income countries. However, it is not sufficient.
- Currently, **130 poorer countries** of the world have **not received even a single dose** of the vaccine. The **vaccine equity** is proving to be the **biggest moral test for the global community**.
- The world urgently needs a Global Vaccination Plan to bring together all those with the required power, scientific expertise as well as production and financial capacities.
- G20 is well placed to achieve the objective of fair and equitable sharing of vaccines.

G20 and COVID – 19 Pandemic

- In March 2020, an emergency virtual summit of G20 leaders was held through video conferencing to discuss the global challenges posed by the coronavirus outbreak. It was hosted by Saudi Arabia.
- The participating leaders pledged to **inject \$5 trillion into the global economy** to reduce the economic impact of the coronavirus pandemic.
- They also agreed to contribute to WHO's COVID-19 Solidarity Response Fund on voluntary basis. This contribution would be in addition to the pledged amount of \$5 trillion.
- The leaders agreed to use all the available policy tools to minimise the economic and social cost of the outbreak and restore global growth, strengthen market resilience and stability.
- Later, in April 2020, **G20 nations agreed to freeze bilateral government loan repayments for low-income countries until the end of the year**.
- This decision was a part of a plan to tackle the health and economic crises triggered by the coronavirus pandemic and prevent an emerging markets debt crunch.

Second Edition of Maritime India Summit

- PM Modi will virtually inaugurate the Second Maritime India Summit (MIS) 2021 in March 2021.
- The summit will be organised by **the Ministry of Ports, Shipping and Waterways** on a virtual platform www.maritimeindiasummit.in from March 2 to March 4.
- **Denmark is the partner country** for this year's summit.
- This Summit will bring together key stakeholders from the maritime sector and will play a leading role in furthering the growth of India's maritime economy.
- It will visualise a roadmap for India's Maritime sector for next decade and will work to propel India to the forefront of the Global Maritime Sector.

Indian Ocean Region Defence Ministers' Conclave

- India hosted Indian Ocean Region (IOR) Defence Ministers' Conclave on the margins of Aero India 2021 in Bengaluru.
- Broad theme of the conclave was '**Enhanced Peace, Security and Cooperation in the Indian Ocean**'.
- The conclave is an initiative to promote dialogue in an institutional, economic and cooperative environment that can foster the development of peace, stability and prosperity in the Indian Ocean region.
- India is geographically central to the Indian Ocean and has a vast coastline of 7,500 kms.
- India's vision for **Security and Growth for All** (SAGAR) cannot be realised without close cooperation and engagements amongst countries in the Indian Ocean Region (IOR).

Analysis

- The present conclave focussed on the Indian Ocean region which is important as part of India's Indo Pacific engagement.
- The Indian conception of the Indo Pacific **extends from the eastern coast of Africa up to the Pacific** and is among the few such concepts that actively include the African coast line and the island countries.
- Besides the Indo Pacific policy, there is also the **overlapping with the Indian Ocean Rim Association** (IORA) which was formed by an initiative of India and South Africa in 1997.
- Hence, many experts believe that between the Indo Pacific concept and the IORA membership, India neatly created a conclave of Defence Ministers of the Indian Ocean region without making it an event of IORA but underlining the importance of these countries in the Indo Pacific context.
- This year's conclave was held on the margins of Aero India. A similar initiative had been taken a year ago, in Lucknow, on the sidelines of the Defexpo when Defence Ministers of African countries had been invited for the first ever India Africa meeting.
- This highlights India's **willingness to indigenously produce military hardware to strategic partners in the Indian Ocean region.**
- India's ability to export in sustainable numbers is now becoming clear.¹⁰ This is bound to generate more interest in the region.

Chief Prosecutor at ICC

- A leading **British barrister, Karim Khan**, has been elected the next **chief prosecutor at the International Criminal Court (ICC)**.
- Mr Khan will be only the **third chief prosecutor in the court's 18-year history**, succeeding Gambian judge Fatou Bensouda.
- The Hague-based ICC consists of 123 member states. It has been constrained from the start with the refusal of the United States, Russia and China to join.

ICC Convicted Ex-Ugandan Rebel Commander

- Ex-Ugandan rebel commander **Dominic Ongwen** has been convicted of war crimes at the International Criminal Court.

- The historic ruling also saw him **convicted of forced pregnancy - a legal first in an international court.**
- Ongwen, a feared commander of the notorious **Lord's Resistance Army (LRA)**, is the first member of the LRA to appear before the court.

[For detailed discussion on International Criminal Court, please refer the topic “**Sanctions against International Criminal Court officials**” (prelims section) from June 2020 edition of CA magazine]

India's New Social Media Rules

- The government has notified new guidelines for social media platforms, OTT players & digital media.
- The draft Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 has been put forward by the Ministry of Electronics and Information Technology.

Key Highlights

A. Removal of Content from Social Media

- Social media intermediaries, upon being **asked either by the court or by a government authority**, will be required to **disclose the first originator of the mischievous tweet or message**, as the case may be.
- The platform will, however, be liable to disclose the originator of the message **only for the purposes of prevention, detection, investigation, prosecution or punishment of an offence related to sovereignty and integrity of India, the security of the State, friendly relations with foreign States, or public order.**
- The rules lay down **10 categories of content** that the social media platform should not host.
- The rules stipulate that upon receipt of information about the platform hosting prohibited content from **a court or the appropriate government agency**, it should remove the said content within 36 hours.

B. Categorisation of Social Media

- The rules also made a distinction between a **significant social media intermediary** and a **regular social media intermediary.**
- However, it is yet to be defined the user size to determine who will constitute a significant social media intermediary, though the officials indicated players with more than 50 lakh users will be considered.

C. Related to Safe Harbour Mechanism

- **Section 79 of the Information Technology Act** provides a “**safe harbour**” to intermediaries that host user-generated content, and exempts them from liability for the actions of users if they adhere to government-prescribed guidelines.
- The new guidelines prescribe **an element of due diligence** to be followed by the intermediary, failing which the **safe harbour provisions would cease** to apply to these platforms.

D. Grievance Redressal Mechanism

- The guidelines mandates that the intermediaries, including social media platforms, should establish a mechanism for receiving and resolving complaints from users.
- Social media intermediaries will also **appoint a grievance officer** whose name and contact details will have to be shared, and a **chief compliance officer.**
 - The **grievance officer**, dealing with such complaints, must acknowledge the complaint within 24 hours, and resolve it within 15 days of receipt.

- The **chief compliance officer** will be responsible for ensuring compliance with the rules.
- They will be required also to appoint a **nodal contact person for 24x7 coordination** with law enforcement agencies.
- The platforms will need to publish a monthly compliance report mentioning the details of complaints received and action taken on the complaints, as well as details of contents removed proactively by the significant social media intermediary.

E. Penalties for Companies Violating these Guidelines

- In case an intermediary fails to observe the rules, it would **lose the safe harbour**, and will be **liable for punishment** “under any law for the time being in force including the provisions of the IT Act and the Indian Penal Code”.

F. Rules for OTT Services

- It has called for a **grievance redressal system for OTT platforms**. The government is also asking OTT platforms to self-regulate.
- While films have a censor board, OTT platforms such as YouTube, Netflix, etc. will require to self-classify their movies and content based on age.
- For this, the government has prescribed **self-classification of content into five categories** based on age suitability. These categories include U, “U/A 7+”, “U/A 13+”, “U/A 16+” and “A”.
- Also, there has to be a **mechanism of parental lock** and ensuring compliance with the same. Platforms like Netflix already have an option for a parental lock.

G. Rules for Digital News Portals

- For publishers of news on digital media, they will be “required to observe Norms of Journalistic Conduct of the Press Council of India and the Programme Code under the Cable Television Networks Regulation Act thereby providing a level playing field between the offline (Print, TV) and digital media.
- It also wants a three-level grievance redressal mechanism. This will include self-regulation by the publishers; self-regulation by the self-regulating bodies of the publishers and oversight mechanism.
- The rule also wants digital media to **appoint a Grievance Redressal Officer** based in India who shall be responsible for the redressal of grievances received by it. The officer shall take decision on every grievance received by it within 15 days.
- There maybe **one or more self-regulatory bodies of publishers**. According to the rules, this body “shall be headed by a retired judge of the Supreme Court, a High Court or independent eminent person and have not more than six members.”

Analysis

- Many experts believe that India’s new social media rules **could be emulated by other countries** such as the US, the UK and Australia.
- These countries have been **pressing social networks to take responsibility for content** on their platforms besides wanting tighter data-handling practices. India’s **demand for traceability** had also found resonance in these countries.
- The new mandates social media companies with over 5 million users in India to **not just enable traceability** of end-to-end encrypted messages, but also **establish local offices with senior officials** to deal with law enforcement and user grievances.

- They also have to alter their interface to clearly distinguish verified users from others, apart from setting up automated tools for content filtration and informing users if their accounts have been blocked with explanations.
- The new rules are part of a **global shift following the mass shooting in New Zealand that was live-streamed by the gunman on Facebook.**

Criticism

- Some experts said the rules violate freedom of speech and expression and privacy. The open internet is fundamentally based on the principles of interoperability and common standards, **which may begin to fragment under these rules.**
- Now these rules will compel social media intermediaries to depart from their global practices to cater to Indian laws, thereby implicitly creating a rift between their global platform and the platform accessible in India.
- Some provisions, such as those enabling traceability of encrypted content and automated filtering, are fundamentally incompatible with end-to-end encryption and will weaken protections.

Data on Cybercrime

- The Ministry of Home Affairs informed the Parliament about the rising cases of cybercrime. It highlighted the fact that an increase in the use of internet across the country has led to **rise in instances of cybercrime.**
- Most of these cases were of sexual exploitation and spread of hatred. **Over 93,000 cases of cybercrime** related to these offences and fraud were registered throughout the country between 2017 and 2019.
- The launch of affordable smartphones, increased social media usage, dependence on online food delivery apps and cab services, online money transactions, online streaming services have all contributed to the dramatic rise in the use of the internet.

Augmented Reality Head Mounted Display Systems for Indian Army

- The army is in the process of procuring 556 **augmented reality head-mounted display (ARHMD)** systems. It will be acquired under **Make-II Category.**
- Development of ARHMD System under Make-II will be in sync with “Atmanirbhar Bharat” policy of the Government and will lead to “Self Reliance” by giving boost to the Indian Defence Industry.

About ARHMD:

- ARHMD serves as a capability enhancement to land-based air defence weapon systems. It will provide the operator with radar and thermal imaging sight outputs as overlays.
- It is aimed at improving engagement capability during night time and inclement weather conditions.
- Day-time engagements are intended to be improved via increased reaction times, data computation for decision support and output integration of thermal imaging sight.

In the Defence procurement procedure, “**Make**” category is further divided into two sub-categories:

1. **Make I** – Govt. funding of 90% is provided under this category.
2. **Make II** - Projects under this category include prototype development of equipment or their upgrades, primarily for import substitution / innovative solutions. **No govt. funding is provided for this.**

Vertically Launched Short Range Surface to Air Missile

- DRDO conducted maiden flight test of Vertically Launched Short Range Surface to Air Missile (VL-SRSAM) from a defence facility off Odisha coast.
- Designed and developed by DRDO for Indian Navy, the VL-SRSAM is capable of neutralising various aerial threats at close ranges including sea skimming targets.
- The next generation all-weather **air defence missile system** can provide point and area defence against various aerial targets like jets, fighter aircraft, unmanned aerial vehicles.
- The canister-based state of art weapon system can identify, track, engage and destroy the target with high kill probability. It has a **strike range of about 40 km**.

Women Commandos Inducted into CoBRA Unit

- The Central Reserve Police Force (CRPF) for the **first time inducted 34 women commandos** in its elite Commando Battalion for Resolute Action (CoBRA) unit.
- These women have been selected from 6 all-women battalions of CRPF. They will now undergo pre-induction training for 3 months.
- They were inducted into the unit during the **35th Raising Day of the CRPF's 88th Mahila Battalion**. The CRPF's 88th Mahila battalion is the **first all-Mahila battalion in the world**.
- The **CoBRA unit was raised in 2009** and is mainly deployed in states affected by left-wing extremism. This unit is skilled in the **guerrilla tactics and jungle warfare**.

India, Bangladesh to Speed up Border Fencing

- The Home Secretaries of India and Bangladesh met virtually and both sides and discussed early completion of pending fencing along the Indo-Bangladesh border.
- As per an official document presented in Rajya Sabha, the **total length of the Bangladesh border** was 2,126 kilometres of which **319 km cannot be fenced due to topographical constraints**.
- Unfenced border between these two countries is problematic. Smugglers use unfenced stretches along the border to smuggle cattle and other items. The smuggling of Fake Indian Currency Notes and contraband are the other areas of concern.

Budget 2021-22: Science & Technology

- The **Ministry of Science and Technology** has been allocated ₹ 14,793.66 crores in Budget 2021-22, a **20 % increase** from the current fiscal.
- Separately, the **Ministry of Earth Sciences (MoES)** has been allocated ₹ 1,897.13 crores.
- The **Ministry of S&T** has **three departments** -- Department of Science and Technology (DST), Department of Biotechnology and Department of Scientific and Industrial Research (DSIR).
- To strengthen the **overall research ecosystem** of the country, the Union Budget FY 2021-22 announced a slew of new initiatives to boost **innovation and R&D** in the country.
- While presenting the Budget in Parliament, the government proposed initiatives covering **digital payments, the space sector and deep ocean explorations**.

National Research Foundation (NRF)

- The Government earmarked ₹50,000 crores over **five years** for the creation of a **National Research Foundation (NRF)** — an umbrella body that is expected to **fund research across a range of disciplines**, from **science and technology to humanities**. NRF will fund research projects across four major disciplines –**Sciences; Technology; Social Sciences; and Arts and Humanities**.
- The Finance Minister had **first announced** such a foundation in her **2019 Budget speech** after it was proposed in a draft of India's **New Education Policy (NEP)**.
- NRF will ensure that the overall research ecosystem in the country is strengthened with a focus on identified **national priority thrust areas**.
- The NRF will also **seed and build research capacity** at universities and colleges through a formal mechanism of mentoring. It will also catalyse research at universities and colleges that have until now not been big players in research.
- The NRF would be **an autonomous body** and represented by all major research and education bodies.
- The NRF is available in **12 major regional languages**.

Boost to Digital Payments

The Finance Minister informed that there has been a manifold increase in **digital payments** in the recent past and there was a need to take steps to carry forward this momentum. **Rs 1,500 crore** has been proposed for a scheme that will provide financial incentive to **promote digital modes of payment** and further boost digital transactions.

National Language Translation Mission

A new initiative called the National Language Translation Mission (NTLM) has been proposed that will **digitise the wealth of governance-and-policy related knowledge** on the Internet and be made available in **major Indian languages**.

India's Space Sector

The Minister informed that **New Space India Limited (NSIL)**, a PSU under the **Department of Space**, will execute the **PSLV-CS51 launch**, carrying the **Amazonia Satellite from Brazil**, along with a few smaller Indian satellites. Four Indian astronauts are also being trained on **Generic Space Flight aspects**, in Russia for **Gaganyaan Mission**, slated to be launched in Dec' 2021.

Deep Ocean Mission

To better **understand the realm of Oceans**, the government proposed to launch a **Deep Ocean Mission** with a budget outlay of more than Rs 4,000 crores, over five years. This Mission will **cover deep ocean survey exploration** and projects for the conservation of **deep-sea biodiversity**.

Unani Day 2021 and National Conference on Unani Medicine

- The **Central Council for Research in Unani Medicine (CCRUM)**, Ministry of AYUSH, Government of India organized a hybrid virtual National Conference on Unani Medicine.
- **Theme:** 'Unani Medicine: Opportunities and Challenges in times of COVID-19'
- **World Unani Day** is annually observed across the globe on **11th February** to create and **spread awareness** about health care delivery through the Unani system of **medicine**. The day marks the **birth anniversary of Hakim Ajmal Khan**, a great Unani scholar and social reformer.
- The first Unani Day was **celebrated in 2017**.

- **Principles of Unani System:** The Unani system postulates the *presence of four humours in the body*: dam (blood), balgham (phlegm), safra (yellow bile) and sauda (black bile), a parallel to kapha, vata and pitta, the three doshas in ayurveda.
- The quality and quantity of four humors affect the state of health and disease in the body.

- The Unani system **originated in Greece**. The theoretical framework of Unani medicine is based on the work of **Hippocrates (460-377 BC)**.
- In India, it was introduced by **Arabs and Persians** sometime around the **eleventh century**.
- It saw the beginning of its revival during the freedom struggle due to the efforts of **Hakim Ajmal Khan**. He established **Ayurvedic and Unani Tibbia College and Hindustani Dawakhana** a pharmaceutical company for manufacturing of Ayurvedic and Unani medicine in Delhi in 1916.

Detailed Genome Map of Malaria Vector

- Scientists have unveiled the **detailed genome** of the **malaria mosquito vector**, revealing thousands of new genes vital for the development of genetic control strategies of disease transmission.
- The researchers included those from the **Tata Institute for Genetics and Society (TIGS)**, and the **Institute of Bioinformatics and Applied Biotechnology**, both in Bengaluru.
- In order to engineer advanced forms of defence against malaria transmission, including targeted **CRISPR and gene drive-based strategies**, scientists require intricate knowledge of the genomes of vector mosquitoes.
- CRISPR technology is a **gene-editing tool** that allows researchers to easily alter DNA sequences and modify gene function.
- With the newly upgraded **Anopheles stephensi genome**, the team unearthed more than 3,000 genes that previously evaded scrutiny and which offer fresh gene-drive targets, play key roles in blood-feeding and the metabolism of ingested blood meal, reproduction and immunity against microbial parasites.
- This reference genome should help malaria biologists in India, particularly in view of the **national goal of malaria elimination in India by 2030**.
- The discoveries include 29 formerly undetected genes that play crucial roles in **resistance to chemical insecticides**, a development that can help address the growing Asian and African **An. stephensi populations** with **insecticide-resistant** mutations.

National AYUSH Mission (NAM)

- The **Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH)** is implementing **Centrally Sponsored Scheme of National AYUSH Mission (NAM)** through States/UTs for development and promotion of AYUSH systems of medicine including Ayurvedic system.
- The Mission inter-alia makes **following provisions** for promotion of AYUSH systems including Ayurvedic systems.
 - i) **Co-location of AYUSH facilities** at Primary Health Centers (PHCs), Community Health Centers (CHCs) and Districts Hospitals (DHs).
 - ii) **Up-gradation** of exclusive State Government AYUSH Hospitals and Dispensaries.
 - iii) Setting up of up to **50 bedded integrated AYUSH Hospital**.

- iv) **Upgradation** of State Government **Under-Graduate and Postgraduate** Educational Institutions.
- v) Setting up of a new **State Government AYUSH Educational Institutions** in the States where it is not available in the Government Sector.
- vi) Strengthening of State Government/State Government **Co-operatives/Public Sector Undertakings** for manufacturing of quality medicines in AYUSH Systems.
- vii) Strengthening of State **Drug Testing Laboratories** for ASU &H Drugs for stringent quality control.
- viii) Support for cultivation of **Medicinal Plant** including processing and post-harvest management to ensure supply of quality raw material for AYUSH medicine and other products.
- Further, Central Government has approved 12,500 **AYUSH Health and Wellness Centres** to be operationalized by the Ministry of AYUSH through State/UT Governments under National AYUSH Mission (NAM) in a phased manner by the year 2023-24.
- It is envisaged to **upgrade AYUSH Dispensaries and Sub-Health Centres** identified by State/UT Governments as AYUSH Health and Wellness Centres for providing AYUSH based **preventive, promotive, curative and rehabilitative care**.
- As **Public Health is a State subject**, opening of AYUSH dispensaries comes under the purview of respective State/UT Governments. There is **no provision** under NAM for opening new AYUSH dispensaries in **every district and block across** the country.

Conservation, Development and Sustainable Management of Medicinal Plants

- It is a **Central Sector Scheme** under which **project-based assistance** is provided for support to Joint Forest Management Committees (JFMCs)/Panchayats/Van Panchayats/Self Help Groups (SHGs)/ Biodiversity Management Committees (BMCs) for setting of local clusters for value addition, drying, warehousing and augmenting marketing infrastructure, etc.
- **Objectives** are to channelize **production and promote sustainable harvesting and supply** of Medicinal plants through capacity building of JFMCs/Van Panchayats /local SHGs/BMCs etc.

Background

- The **Ministry of AYUSH** was formed on 9th November' **2014**. Earlier it was known as the **Department of Indian System of Medicine and Homeopathy (ISM&H)** which was created in March 1995 and renamed as **Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)** in November 2003, with a view to provide focused attention for the development of Education and Research in Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy.
- **National AYUSH Mission (NAM)** is a flagship scheme of the Ministry of AYUSH approved and notified on 29.09. 2014. It was launched during the **12th Plan** for implementing through States/UTs.

Hunter Syndrome

- The Delhi High Court has asked the Ministry of Health and Family Welfare and the All-India Institute of Medical Sciences (AIIMS) to obtain instructions on how two minor brothers suffering from a rare disease, **Hunter Syndrome**, could be provided free treatment.
- The **Mucopolysaccharidosis II or MPS II (Hunter Syndrome, Attenuated Type)** is a rare disease that is passed on in families. It **mostly affects boys** and their bodies cannot break down a kind of sugar that builds bones, skin, tendons and other tissues.
- Those sugars build up in their cells and damage many parts of the body, including the brain.

- In Hunter syndrome, the body **doesn't have enough of the enzyme iduronate 2-sulfatase**. This enzyme's job is to break down certain complex molecules, and without enough of this enzyme, the molecules build up in harmful amounts.
- There's **no cure for Hunter syndrome**. Treatment involves managing symptoms and complications.

Advanced Light Helicopters (ALH) Mk III

- **Hindustan Aeronautics Limited** handed over three **Advanced Light Helicopters (ALH) Mk III** to the Indian Navy and two to the Indian Coast Guard as part of a 16-ALH contract.
- It is "**Made in India**" advanced **light helicopters**, customised for coastal security
- The helicopters are fully loaded, **multi-mission** and are fitted with an array of advanced sensors. This will augment the Navy's responsibility for **coastal security** placed on it by the government after the 26/11 Mumbai terror attacks.
- The helicopter features a full glass cockpit with HAL's **Integrated Architecture Display System (IADS)**, more powerful "**Shakti**" (**Safran Ardiden 1H1**) engines, and a host of new systems.

IN FAC T-81

- **Indian Naval Fast Attack Craft (IN FAC) T-81** of the **Super Dvora MK II class**, was **decommissioned** on 28 Jan 21 at Naval Dockyard, Mumbai after having served the nation successfully for more than 20 years.
- The 25 meters long vessel with 60 tonnes displacement was built at Goa Shipyard Ltd. in collaboration with M/s **Ramta of Israel**. She was commissioned into the Navy on 05 Jun 1999.
- The ship, specially **designed** for shallow waters, could achieve speeds up to 45 knots and had the capability of day/night surveillance and reconnaissance, Search & Rescue, beach insertion, extraction of Marine Commandoes and high-speed interception of intruder craft.

New Fighter Jets

- India will now manufacture the fifth-generation fighter aircraft on its own under the Atmanirbhar Bharat Abhiyan. Currently, Rafael fighter jets coming from France are of 4.5 generation, while America, Russia, and France have developed next-generation aircraft.
- According to the Ministry of Defence, three new fighter jets will be flying by 2026, of which two will be for the Air Force and one for the Navy.
- This includes a new **LCA Mk-2** and **Advanced Medium Combat Aircraft (AMCA)** for the Air Force and the **Twin-Engine Deck-Based Fighter (TEDBF)** for the Navy.
- **LCA Mk-2**
 - It is a **replacement for the Mirage 2000** class of aircraft and is a **4.5 generation aircraft** that will be used by Indian Air Force. It has got a bigger engine and can **carry 6.5 tonnes of payload**.
 - LCA is designed for **maneuverability**.
 - It came from the **Light Combat Aircraft (LCA) programme**, which began in the 1980s to replace India's ageing MiG-21 fighters.
 - In 2003, the LCA was officially named "**Tejas**".
- **Advanced Medium Combat Aircraft (AMCA)**

- It is **fifth-generation stealth aircraft** with a range from over **1,000 km up to 3,000 km**. It has a unique shape to **achieve low radar cross-section** and has got internal carriage of weapons
- While **AMCA Mk-1 will have an imported engine**, same as LCA Mk-2, the **AMCA Mk-2 will have an indigenous engine**.
- It will be a **single-seat, twin-engine, stealth all-weather multirole fighter aircraft**. The 25-tonne jet will be capable of attaining super-cruise speed.
- **Twin-Engine Deck-Based Fighter (TEDBF)**
 - It is being developed to **replace the Russian-made MiG-29K fighters** in service with the Indian Navy.
 - It will operate from the **INS Vikramaditya** and the upcoming indigenous aircraft carrier.
 - It is a **canard-equipped, twin-engine variant of HAL Tejas** with higher thrust and payload capacity and will be comparable to the Rafale-M.
 - The TEDBF is expected to perform multiple roles like **combat air patrol, air-to-air combat, anti-ship strike and buddy refueling**.

INS Viraat

- The Supreme Court ordered a “status quo” with regard to the dismantling of India’s decommissioned aircraft carrier, INS Viraat.
- INS Viraat was formerly known as **HMS Hermes** as the aircraft carrier who had served in the **United Kingdom’s Royal Navy for 27 years**.
- INS Viraat was inducted into the **Indian Navy in the year 1987**. It was commissioned in 1987 at Plymouth in the United Kingdom.
- Nicknamed the Grand Old Lady, Viraat was instrumental in several military operations like **Operation Jupiter, Operation Parakram and Operation Vijay**. It also served the **British Royal Navy in the Falklands War**.
- Along with the ability to carry 25 aircraft it could also **carry Sea Harrier fighters and Sea King 42 B/C, Chetak, Kamov 31 and ALH helicopters**.
- INS Viraat is the Guinness record holder for being the longest-serving warship of the world.

Tropex-21

- Indian Navy’s largest **biennial Theatre Level Operational Readiness Exercise (TROPEX 21)** was conducted with participation of all operational units of Indian Navy including ships, submarines, aircraft as well as units of the Indian Army, Indian Air Force and Coast Guard.
- **Theme: ‘Combat Ready, Credible and Cohesive force’**.
- The exercise was conducted over a **vast geographical expanse in the Indian Ocean Region including its adjunct waters**.
- It is aimed at testing combat readiness of the Navy in a complex multi-dimensional scenario set in the context of the current geostrategic environment.
- **TROPEX has been conducted over distinct phases:**
 - In the first phase, the Indian Navy had conducted coastal defence exercise **‘Sea Vigil’ along the entire coastline and Island territories of India**. This exercise was aimed to validate the coastal defence setup of the country, which was entirely revamped after the 26/11 attacks at Mumbai.

- It was followed by a large-scale **Tri-Service joint amphibious exercise AMPHEX-21**. It was conducted in the Andaman and Nicobar group of Islands and was aimed at validating India's capabilities to **safeguard the territorial integrity of its Island territories** and enhance operational synergy and joint warfighting capabilities amongst the three Services.
- The **Weapon Workup Phase of TROPEX** reaffirmed the Navy's capability to **carry out long-range maritime strikes in the Indian Ocean Region**, a capability that is central to meeting operational challenges and ensuring safe seas and secure coasts.

Indian Ocean Region Defence Ministers' Conclave

- The Minister of Defence hosted a **Defence Ministers' Conclave from countries in the Indian Ocean Region** with an eye to boost India's role as a security partner of choice as well as securing markets for India-made defence hardware.
- The broad theme of the conclave is '**Enhanced Peace, Security and Cooperation in the Indian Ocean**'.
- The conclave is an initiative to promote dialogue in an institutional, economic and cooperative environment that can foster the **development of peace, stability and prosperity in the Indian Ocean region**.
- It will also address Information-sharing towards increased **maritime domain awareness, maritime surveillance and co-operation, Humanitarian Assistance and Disaster Relief (HADR)**, Marine Pollution Response activities, Development of technologies and capabilities for harnessing marine resources.

Joint Advanced Technology Program –Center of Excellence (JATP – CoE)

- **DRDO** signed a Memorandum of Understanding (MoU) with the **Indian Institute of Science (IISc)** Bengaluru for creation of JATP – CoE in the premises of IISc to expand the scope and objective of existing Joint Advanced Technology Program.
- The JATP-CoE, located in the campus of IISc, will enable **Directed Basic & Applied Research** and engage with premier research institutes through multi-disciplinary & multi-institutional collaboration. The focused research efforts at the centre will lead to realization of indigenous technologies in the critical areas to develop state of art technologies.
- JATP was created by **Dr APJ Abdul Kalam** in 1983 (while leading **Integrated Guided Missile Development Programme (IGMDP)** program), where the DRDO scientists actively collaborated with the faculty of IISc to work on various missile technologies.

Arjun Main Battle Tank (MK-1A)

- Prime Minister of India handed over the **indigenously developed Arjun Main Battle Tank (MK-1A)** to the Indian Army.
- The army will get 118 units of the Main Battle Tank, **indigenously designed, developed and manufactured by CVRDE and DRDO** along with 15 academic institutions, eight labs and several MSMEs.

Features

- The Arjun tanks stand out for their '**Fin Stabilised Armour Piercing Discarding Sabot (FSAPDS)**' ammunition and **120-mm calibre rifled gun**.

- It also has a **computer-controlled integrated fire control system** with **stabilised sighting** that works in all lighting conditions.
- The secondary weapons include a coaxial 7.62-mm machine gun for anti-personnel and a 12.7-mm machine gun for anti-aircraft and ground targets.
- The **Mk-1A version** has 14 major **upgrades** on the earlier version. It is also supposed to have **missile firing capability** as per the design, but this feature will be added later as final testing of the capability is still on. However, the biggest achievement with the latest version is **54.3 % indigenous content** against the 41 % in the earlier model.

Background

- The Arjun Main Battle Tank project was **initiated by DRDO in 1972** with the **Combat Vehicles Research and Development Establishment (CVRDE)** as its lead laboratory.
- The **objective** was to create a “**state-of-the-art tank** with superior firepower, high mobility, and excellent protection”.
- During the development, the CVRDE achieved **breakthroughs** in the engine, transmission, hydropneumatic suspension, hull and turret as well as the gun control system. **Mass production** began in 1996 at the Indian Ordnance Factory’s production facility in **Avadi, Tamil Nadu**.
- The Indian Army received the **first batch** of 16 tanks in **2004** and they were inducted as a squadron of the 43 Armoured Regiment. In 2009, the **first Arjun regiment** of the Indian Army had 45 tanks.

CCTNS Hackathon

- The 2nd **CCTNS Hackathon and Cyber Challenge 2020-21** of the **National Crime Records Bureau (NCRB)** were held in New Delhi.
- It aims to **enhance analysis and deepen understanding of police personnel** and to help **improve existing IT applications** as well as help **identify new IT applications** to improve the CCTNS ecosystem.
- The Mobile App- “**Locate Nearest Police Station**”- was also launched at the function. This App will help various users including women commuters, interstate travellers, domestic and foreign tourists etc. especially during any emergency and has the facility to dial 112.
- This will add to other Central Citizen Services being provided by the NCRB such as “**Missing Person Search**”, “**Generate Vehicle NOC**”, “**Proclaimed Offenders Information**” and various other services being provided by the State Citizen Police Portals.
- **Crime and Criminal Tracking Network & Systems (CCTNS)**
 - **Approved in 2009** with an allocation of Rs. 2000 crores, CCTNS is a **Mission Mode Project** under the **National e-Governance Plan (NeGP)** of the Government of India.
 - **Objectives:**
 - Provide Citizen-Centric Police Services via a web portal
 - Pan India search on National database of Crime & Criminal records
 - Crime and Criminal reports at State and Center
 - Computerization of Police Processes
 - It aims at creating a **comprehensive and integrated system for enhancing the efficiency and effectiveness of policing** through adopting the principle of e-Governance and **creation of**

nationwide networking infrastructure for evolution of IT-enabled-state-of-the-art tracking system around 'Investigation of crime and detection of criminals'.

Vigyan Jyoti Programme

- The second phase of the Vigyan Jyoti programme was commenced on the occasion of the **International Day of Women and Girls in Science** on February 11, 2021.
- The Vigyan Jyoti programme was launched by the **Department of Science & Technology (DST) in 2019** to inspire **girl students** to pursue **higher education and careers in Science, Technology, Engineering, and Mathematics (STEM) fields**.
- The programme offers exposure for girl students coming from rural backgrounds to help them understand how to plan their journey from school to college and thereafter from research to a job of their choice in the field of science.
- **Other initiatives of the DST to bring gender parity in the Science & Technology (S&T) domain:**
 - **Women Scientists Scheme** to help women with career-break.
 - **Indo-US Fellowship for Women in STEMM (WISTEMM)** program where women scientists can work in research labs of USA.
 - **Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE) programme** for improving R&D infrastructure and establishing state-of-the-art research facilities in order to create excellence in S&T in women universities
 - **Gender Advancement for Transforming Institutions (GATI)** will develop a comprehensive Charter and a framework for assessing Gender Equality in STEM.
 - Further, DST has additionally established **Artificial Intelligence (AI) labs in women universities** with the goal to foster AI innovations and to prepare skilled manpower for AI-based jobs in future.

ISRO Signs MoU to Provide Indian alternative to Google Maps

- The **Department of Space, under which ISRO comes**, had entered into an MoU with geospatial technology company **CE Info Systems Pvt Ltd, which owns MapmyIndia**.
- Under the partnership, the combined geospatial expertise of the DoS and CE Info Systems would be leveraged through their respective Geoportals.
- The collaboration will enable them to **jointly identify and build holistic geospatial solutions** utilising the earth observation datasets, 'NavIC', Web Services and APIs (application programming interface) available in MapmyIndia, 'Bhuvan', 'VEDAS' and 'MOSDAC' geoportals.
 - Indian Regional Navigation Satellite System (IRNSS) called **NavIC Navigation with Indian Constellation** is **India's own navigation system**, developed by ISRO.
 - **Bhuvan** is the **national geo-portal** developed and hosted by ISRO comprising geospatial data, services and tools for analysis.
 - **Visualisation of Earth observation Data and Archival System (VEDAS)** is an **online geoprocessing platform** using optical, microwave, thermal and hyperspectral EO data covering applications particularly meant for academia, research and problem-solving.

- **Meteorological and Oceanographic Satellite Data Archival Centre (MOSDAC)** is a **data repository for all the meteorological missions** of ISRO and deals with weather-related information, oceanography and tropical water cycles.
- The collaboration would provide more detailed and **comprehensive**, as well as **privacy-centric, hyper-local and indigenous mapping solutions for Indians**, compared to foreign map apps and solutions.

Laws Governing Cyber World

- The **Centre had issued notice to Twitter** after the micro-blogging site restored more than 250 accounts that had been suspended earlier on the government's 'legal demand'.
- Cooperation between technology services companies and law enforcement agencies is now deemed a vital part of fighting cybercrime, and various other crimes that are committed using computer resources. These cover hacking, digital impersonation and theft of data.
- **Information Technology Act, 2020:**
 - In India, the Information Technology Act, 2000, **governs all activities related to the use of computer resources**. It **covers all 'intermediaries'** who play a role in the use of computer resources and electronic records.
 - The term 'intermediaries' includes **providers of telecom service, network service, Internet service and web hosting**, besides search engines, online payment and auction sites, online marketplaces and cyber cafes.
 - It includes any person who, on behalf of another, receives, stores or transmits any electronic record. **Social media platforms would fall under this definition.**
- **Section 69 of IT Act, 2000:**
 - This section confers on the Central and State governments the power to issue directions **"to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource"**.
 - The grounds on which these powers may be exercised are: in the interest of the sovereignty or integrity of India, defence of India, security of the state, friendly relations with foreign states, public order, or for preventing incitement to the commission of any cognisable offence relating to these, or for investigating any offence.
 - It also enables the Centre to ask any agency of the government, or any intermediary, to **block access to the public of any information generated**, transmitted, received or stored or hosted on any computer resource.
 - Any such request for blocking access must be **based on reasons given in writing**.
 - The Act also empowers the government **to collect and monitor data on traffic**.
- **Responsibility of Intermediaries**
 - Intermediaries are required to **preserve and retain specified information** in a manner and format **prescribed by the Centre** for a specified duration.
 - Contravention of this provision may attract a prison term that may go up to three years, besides a fine.
- **Section 79 of the IT Act, 2000**

- This section makes it clear that an **intermediary shall not be liable for any third-party information, data, or communication link** made available or hosted by him.
- This protects intermediaries such as Internet and data service providers and those hosting websites from being made liable for content that users may post or generate.
- However, the exemption from liability **does not apply** if there is **evidence that the intermediary abetted or induced the commission** of the unlawful act involved.

- **Supreme Court Verdict**

In *Shreya Singhal vs Union of India (2015)*, the Supreme Court read down the provision to mean that the **intermediaries ought to act only upon receiving actual knowledge that a court order has been passed**, asking [them] to expeditiously remove or disable access to certain material.

No Blanket Nod Given for Surveillance

- The Centre has informed the Delhi High Court that **no blanket permission has been given to any government agency** for interception or monitoring of any messages or information under its surveillance programmes such as **Centralized Monitoring System (CMS), Network Traffic Analysis (NETRA) and National Intelligence Grid (NATGRID)**.
- The affidavit came in response to a petition seeking to **constitute a permanent independent oversight body comprising judicial and parliamentary representatives**, for reviewing lawful interception and monitoring orders or warrants under the provisions of the Indian Telegraph Act and the Information Technology Act.
- The existing safeguards include oversight by a **high-level committee chaired by Cabinet Secretary at the Central level** and chaired by Chief Secretary at the State level, are adequate and provide effective supervision
- The government defended the need for surveillance systems saying that the grave threats to the country from **terrorism, radicalisation, cross-border terrorism, cybercrime, organised crime, drug cartels** cannot be understated or ignored.
- In this light, a strong and robust mechanism for timely and speedy collection of actionable intelligence including digital intelligence, is imperative to counter threats to national security.

Lithium

- **The Atomic Minerals Directorate** issued a clarification on media reports about Lithium Reserves in Karnataka.
- Lithium is a **key element** for **new technologies** and finds its use in ceramics, glass, telecommunication and aerospace industries.
- The well-known uses of lithium are in **Lithium-ion batteries**, lubricating grease, **high energy additives** to rocket propellants, optical modulators for mobile phones and as a converter to tritium used as a **raw material for thermonuclear reactions i.e., fusion**.
- The thermonuclear application makes Lithium as “**Prescribed substance**” under **Atomic Energy Act, 1962** which permits AMD for exploration of Lithium in various geological domains of the country.

Atomic Minerals Directorate (AMD)

- AMD for Exploration and Research, a constituent unit of **Atomic Minerals Directorate** of Department of Atomic Energy and **Geological Survey of India** are two agencies that are involved in mineral exploration.

- AMD has the mandate of **surveying, prospecting and development of resources** of uranium, thorium, niobium, tantalum, lithium, beryllium and Rare Earth Elements (REE) as these minerals are required for supporting the Nuclear Power Programme of the country.

Ethylene Glycol (CH₂OH)₂

- Ethylene glycol (IUPAC name: ethane-1,2-diol) is an industrial compound found in **consumer products** including automotive antifreeze, hydraulic brake fluids, some stamp pad inks, ballpoint pens, solvents, paints, plastics, films, and cosmetics and is also used as a pharmaceutical vehicle.
- It is a **synthetic liquid**, which is an **odourless, viscous liquid** and is used to make **antifreeze and de-icing solutions** for cars, aeroplanes and boats.
- It has a **sweet taste** and is often accidentally or intentionally ingested.
- Once ingested, ethylene glycol is chemically broken down into **toxic compounds**. These byproducts then affect the **central nervous system** (CNS), the heart and then the kidneys. CDC says that the ingestion of sufficient amounts can be fatal.

Composite Raw Materials

- **Hindustan Aeronautics Limited (HAL)** and **Mishra Dhatu Nigam Limited (MIDHANI)** signed a Memorandum of Understanding (MoU) for the development and production of composite raw materials during the **Aero India 2021 in Bengaluru**.
- This is **the first time** that such an MoU has been signed for composite raw materials.
- A composite material is a material that is produced from **two or more constituent** materials.
- These constituent materials have **notably dissimilar chemical or physical properties** and are merged to create a material with **properties, unlike the individual elements**. Within the finished structure, the individual elements remain **separate and distinct**, distinguishing composites from mixtures and solid solutions.
- Typical engineered composite materials **include**:
 - Reinforced concrete and masonry
 - Composite wood such as plywood
 - Reinforced plastics, such as fibre-reinforced polymer or fiberglass
 - Ceramic matrix composites (composite ceramic and metal matrices)
- Composites raw materials, mainly in the form of **prepregs used in platforms** like Light Combat Aircraft (LCA), Advanced Light Helicopter (ALH), Light Combat Helicopter (LCH) and Light Utility Helicopter (LUH) are currently imported.
- There are various reasons where new material can be favoured. Typical examples include materials that are **less expensive, lighter or stronger** when related to common materials.

Gen. Thimayya Memorial Museum

- President of India inaugurated Gen. **Thimayya Memorial Museum** in Kodagu district (also known as Coorg), Karnataka.
- **General Kodendera Subayya Thimayya (1906-1965)** was a distinguished soldier of the **Indian Army** who served as **Chief of Army Staff from 1957 to 1961** in the crucial years leading up to the conflict with **China in 1962**. He was the only Indian to command an **Infantry brigade** in battle during

the **Second World War** and is regarded as the most distinguished combat officer the Indian Army has produced.

- After the Korean War, Thimayya headed a **United Nations unit** dealing with the repatriation of prisoners of war. After his retirement from the Army, he was appointed Commander of the **United Nations Peacekeeping Force** in Cyprus from July 1964 to December 1965 and died in Cyprus while on active duty on 18 December 1965.
- In 1954, he was awarded the Padma Bhushan for Civil Service.
- His ancestral house '**Sunny Side**' has been renovated and converted into a museum. The museum **showcases** memorabilia, including weapons and military uniforms, and houses a battle tank at the entrance in addition to a fighter jet, MiG 21, both of which were used in the 1971 war.

Square Kilometre Array Observatory (SKAO)

- A global collaboration for the **world's largest radio telescope** took formal shape with the constitution of an **Intergovernmental Council**.
- The **Square Kilometre Array Observatory (SKAO)** project, spanning two continents and involving the participation of 20 countries, is expected to be ready for carrying out observations towards the end of this decade.
- Headquartered and controlled from the **UK**, the SKA is not a single telescope but will be an **array of antennas** strategically designed and set up in **South Africa and Australia**.
- It is proposed to be **built in two phases**, with an estimated 1.8 billion euros required for phase-I, planned over the **next ten years**.



SKAO Objectives

- To study the gravitational waves in order to test the theories proposed by **Albert Einstein**.
- Studying **the universe and its evolution, the origin and evolution of cosmic magnetism**.
- **Dark energy** and evolution of galaxies.
- **The SKAO also hopes to look for signs of life in outer space, while mapping hundreds of millions of galaxies.**

SKAO Member Countries

- **Started in 2014**, the design and engineering took six years to complete, with science and policy proposals coming from over 1,000 scientists, and more than 500 engineers representing **20-plus countries** who deliberated over three decades.
- The three hosting nations are **South Africa, Australia and the UK**. Member nations include Canada, China, France, Germany, **India**, Japan, Italy, the Netherlands, Portugal, South Korea, Spain, Sweden and Switzerland.
- In addition, **eight African countries** are taking part in coordinated actions to support the expansion of the project on the continent.
- Although there are **16 member nations**, **not all of them have officially attained membership** as yet. **India's SKA membership is currently under review** with the DAE and DST, and is expected to be completed sometime this year.

SKAO and India

- India is participating in SKAO through the **Department of Atomic Energy (DAE)** and the **Department of Science and Technology (DST)**.
- The Indian team was among the **first to submit and get the design approval** of a highly sophisticated **Telescope Manager (TM)**, nicknamed “**nervous system**”, of the SKA observatory. The Indian team has now been chosen to lead the construction of the TM system, which will be responsible for end-to-end operations of SKAO.
- India will also contribute towards building **digital hardware for the SKA low-frequency** receiver systems, some parts of the receiver for the SKA mid-frequency telescopes along with parts of the data processing units.

Radio Telescope

- A radio telescope is a **specialized antenna** and radio receiver used to **detect radio waves from astronomical radio sources** in the sky.
- Radio telescopes are the main observing instrument used in **radio astronomy**, which studies the radio frequency portion of the electromagnetic spectrum emitted by astronomical objects, just as **optical telescopes** are the main observing instrument used in traditional optical astronomy which studies the light wave portion of the spectrum coming from astronomical objects.
- Unlike optical telescopes, radio telescopes **can be used in the daytime as well as at night**.
- The **first radio antenna** used to identify an astronomical radio source was built by **Karl Guthe Jansky**, an engineer with Bell Telephone Laboratories, in 1932.
- Many **astronomical objects are not only observable** in visible light but also emit **radiation at radio wavelengths**.
- Besides observing **energetic objects such as pulsars and quasars**, radio telescopes are able to “**image**” most astronomical objects such as galaxies, nebulae, and even radio emissions from planets.

BL Lacertae

- In a major achievement that can help analyse and lead to probing of mysteries and tracing of events at different stages of the **Universe’s evolution**, Indian astronomers have reported one of the **strongest flares** from a feeding **super massive black hole** or **blazar called BL Lacertae**.
- The analysis of the flare from this blazar, **one of the oldest astronomical objects**, can help trace the source of emission and mass of the black hole.
- Blazars, or **feeding super massive black holes** in far **off galaxies**, are known for their complicated emission mechanism. Blazars are one of the **most energetic and luminous objects** in the Universe and they emit jets of charged particles travelling at nearly the speed of light.
- BL Lacertae blazar is one of the **50 most prominent blazars** which can be observed with the help of a **relatively small telescope**.
- The Whole Earth Blazar Telescope (WEBT), an international consortium of astronomers, had predicted that the BL Lacertae blazar is among the three or four blazars to be experiencing flares.
- BL Lacertae blazar is located **10 million light-years away**.
- This class of objects is **very unique**. They have **complete electromagnetic emission**, that is they emit radiation in **all electromagnetic bands** — Radio Waves; Microwaves; Infrared; Visible Light;

Ultraviolet (UV); X-Rays and Gamma Rays — which is not something all objects can do. Gamma-ray births do this, but they are short-lived.

Gaganyaan Mission

- The **Minister of Science & Technology** has informed that the **human spaceflight module of Gaganyaan** will be launched after the **second unmanned mission planned in 2022-23**. The first unmanned mission is planned for December 2021.
- Gaganyaan is an **Indian crewed orbital spacecraft** that is intended to send **3 astronauts to space** for a minimum of seven days by 2022, as part of the **Indian Human Spaceflight Programme**.
- The spacecraft, which is being developed by the **Indian Space Research Organisation (ISRO)**, consists of a service module and a crew module, collectively known as the **Orbital Module**. It will **circle Earth at a low-earth-orbit** at an altitude of 300-400 km from earth.
- ISRO's **Geosynchronous Satellite Launch Vehicle GSLV Mk III**, the three-stage heavy-lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.
 - GSLV Mk III is designed to **carry a 4-ton class of satellites into Geosynchronous Transfer Orbit (GTO)** or about 10 tons to Low Earth Orbit (LEO).
 - The powerful cryogenic stage of GSLV Mk III enables it to **place heavy payloads into LEO's of 600 km altitude**.
 - The launcher uses two S200 solid rocket boosters to **provide a huge amount of thrust required for lift-off**.
- ISRO has developed some critical technologies like re-entry mission capability, crew escape system, crew module configuration, thermal protection system, deceleration and flotation system, sub-systems of life support system required for Mission Gaganyaan.
- **Advantages of Gaganyaan Mission:**
 - The mission will enable ISRO to achieve higher levels of **reliability in launch and satellite technology**.
 - The project holds the utmost importance for the country as it will **boost the science and technology capability** of the country.
 - If **India** does launch the Gaganyaan mission, it **will also become the fourth nation** to do so after the United States, Russia and China.

Beema Bamboo Crash Barriers

- Experts from the **Visvesvaraya National Institute of Technology (VNIT)**, Nagpur, are working on the design of **crash barriers using Beema bamboo**.
- Crash barriers are typically **meant to prevent vehicles from going off highways** and should there be an accident, the barrier will cushion the impact and minimise the chance of fatality to the extent possible.
- Crash barriers made of Beema bamboo and coir are being developed as a **low-cost solution as the Centre looks for innovative**, newer ways to bring down fatalities and mishaps on roads.
- Beema or Bheema bamboo is a type of **bamboo engineered to be a stronger, fast-growing and tall clone of the traditional bamboo** found in the Indian subcontinent, especially the North-East. This variety grows well in southern India.

Net Neutrality

- The **Cellular Operators Association of India (COAI)** has urged the government to **bring over-the-top (OTT) service providers** such as WhatsApp **under the licensing regime** and **defer net neutrality rules** on telecom operators till the time 'same service, same rules' are applied on the applications.
- Recently, the Telecom Regulatory Authority of India has recommended that no regulations should be imposed on the calling and messaging apps till the time clarity emerges in the international jurisdictions.
- **Network neutrality** is the concept that the **internet must remain free, open, and without restriction, regardless of where or how you access it.** In short, net neutrality means that **any and all data should be treated equally** when it jumps from cell tower to cell tower, not delayed, accelerated, or blocked.
- It requires all **Internet service providers (ISPs) to provide the same level of data access** and speed to all traffic. This means an ISP cannot slow down or charge more for certain services or websites while also promoting others.
- The net neutrality principles prohibit service providers from discriminating against Internet content and services by blocking, throttling or according preferential higher speeds.

Helina and Dhruvastra

- Joint User Trials for **Helina (Army Version)** and **Dhruvastra (Air Force Version) Missile Systems** have been carried out from **Advanced Light Helicopter (ALH)** platform in desert ranges.
- The **Anti-Tank Guided Missiles (ATGM) systems** have been designed and developed indigenously by Defence Research and Development Organisation (DRDO).
- The Helina and Dhruvastra are **third generation, Lock on Before Launch (LOBL) fire and forget Anti-Tank Guided Missiles** that can engage targets both in direct hit mode as well as top attack mode.
- The system has **all-weather day and night capability** and can defeat battle tanks with conventional armour as well as with explosive reactive armour.
- It is one of the most-advanced anti-tank weapons in the world.

National Technology Awards 2020

- A total of 12 companies have been selected for the **National Technology Awards 2020** for successful commercialization of innovative indigenous technologies.
- The awards were given by the **Technology Development Board (TDB)**. Every year, TDB seeks applications for prestigious National awards for commercialization of technologies under three categories - **indigenous technologies, MSME, and startups.**
- These awards conferred to various industries provides a platform of **recognition to Indian industries and their technology provider**, who have worked as a team, to bring innovation to the market and contributed to the **vision of "Atma Nirbhar Bharat"**.
- The Technology Development Board is a **statutory body** of the Government of India functioning under the **Department of Science of Technology.**

- TDB was **established in 1996**. It **provides financial assistance to Indian companies** for commercialization of innovative indigenous technologies and adaptation of imported technologies for domestic applications.

Airline Mapping of Andaman & Nicobar Island and Lakshadweep

- The Indian National Centre for Ocean Information Services (INCOIS) is planning to take the help of the **National Remote Sensing Centre (NRSC)** for airline mapping of Andaman and Nicobar Islands and Lakshadweep to **get a better picture of the ocean floor, also called 'bathymetric' study**.
- Such a study has become **imperative in view of the recent tsunamis of the Indonesian coasts**. In these cases, more than the quake related high waves, **damage was due to landslides that had under the sea beds** causing sudden wave surge leading to much damage without giving sufficient time to alert people
- It had also identified gaps across the coast of Andhra Pradesh and Odisha for installing more tide gauges for better monitoring of the sea and more accurate prediction of impending disasters like cyclones.
- The INCOIS scientists, in association with their counterparts in the Chennai-based National Institute of Ocean Technology (NIOT) and an United States independent scientific agency, have been mining the data recorded by a **unique 'Flux Buoy' retrieved from the Bay of Bengal** off the Kolkata coast.
- The buoy was dropped off into the sea to **monitor the temperatures, pressures, salinity, radiation and geo-chemical changes** at various depths in a high resolution scale, compared to other buoys in the seas.
- **Indian National Centre for Ocean Information Services (INCOIS)**
 - It is an **autonomous organization** established in 1999 and is a unit of the **Earth System Science Organization (ESSO)**.
 - It is under the aegis of the **Ministry of Earth Sciences (MoES)**
 - ESSO- INCOIS is mandated to provide the **best possible ocean information and advisory services** to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research.

Human Challenge Trials

- The UK is set to conduct the first COVID-19 **human challenge trials (HCT)**.
- In this study, over 90 healthy volunteers between the ages of 18-30 will be **deliberately exposed to small amounts of the virus in controlled settings**, in order to test treatments and vaccines.
- In this way, the participants are "challenged" by the virus. This is not the same as standard vaccine clinical trials, where the vaccine is given to participants who have acquired the infection naturally.
- **The aim of such trials is to:**
 - identify the smallest amount of virus required to infect a person
 - help doctors understand how the immune system reacts to SARS-CoV-2
 - identify factors that influence how the virus is transmitted, including how an infected person transmits the virus into the environment

- HCTs are **able to give more precise information about the disease and its effects** on humans, and also give results about the efficacy of vaccines on infected humans.
- Even so, there are certain limitations of HCTs. They **cannot be conducted for diseases that have a high case fatality rate** or for diseases for which no course of treatment is available.
- Human challenge trials have been conducted over hundreds of years and have contributed towards vaccine and drug development.
- What makes HCTs “ethically complex” for emerging infectious diseases (which COVID-19 is) is the fact that not everything is known about them, and therefore, there is a significant risk of complications.

Vertical Launch Short Range Surface-to-Air Missile

- The Defence Research and Development Organisation (DRDO) had conducted two successful launches of **vertical launch short range surface-to-air missile (VL-SRSAM)** off the Odisha coast in Balasore.
- **Indigenously designed and developed by DRDO** for the Navy, the VL-SRSAM is meant for neutralising various aerial threats at close ranges, including sea-skimming targets.
- Once deployed, the VL-SRSAM system will prove to be a **force multiplier for the Indian Navy**.

Zolgensma Gene Therapy

- **Spinal Muscular Atrophy (SMA) is a genetic disorder** in which one defective gene causes muscles weakness and degenerates its normal functions. This rare disorder is found in one of every 10,000 babies with most unable to survive beyond a few years.
- The Zolgensma gene therapy is a **one-time injection that replaces the defective gene with a normal gene** and rectifies the disorder. In 2019, the US FDA approved this therapy for children aged less than two years.

Amazonia-1 Satellite

- The **Indian Space Research Organisation (ISRO)** had successfully launched **Brazil's Amazonia 1 satellite**, along with 18 other passenger satellites.
- The satellite was launched by India's **Polar Satellite Launch Vehicle-C51 (PSLV-C51)**.
- Amazonia-1 is the **optical earth observation satellite** of National Institute for Space Research (INPE). This satellite would further strengthen the existing structure by providing remote sensing data to users for **monitoring deforestation in the Amazon** region and analysis of diversified agriculture across the Brazilian territory.
- The launch marks a new high point in space cooperation between the two countries that began nearly two decades ago
- The launch also marked the **first dedicated mission of ISRO's commercial arm NewSpace India Ltd. (NSIL)**. NSIL, incorporated in 2019 (under the Companies Act, 2013), is a **wholly owned Government of India company**, under the administrative control of **Department of Space (DOS)**.
- NSIL is the **commercial arm of ISRO** with the primary responsibility of enabling Indian industries to take up high technology space related activities.
- It is also responsible for **promotion and commercial exploitation of the products and services** emanating from the Indian space programme.

National Science Day

- National Science Day is celebrated every year on **28th of February** to **commemorate the discovery of the 'Raman Effect'**.
- For his discovery, Sir C.V. Raman was awarded the **Nobel Prize in Physics in 1930**.
- Theme: **'Future of Science and Technology and Innovation: Impact on Education Skills and Work'**.
- The **National Science Communication Awards** are presented every year on this day. It was instituted in 1987 to encourage and recognize outstanding efforts in the area of science and technology and inculcating scientific temper among the masses.
- **Raman Effect is a change in the wavelength of light** that occurs when a light beam is deflected by molecules.
- When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam.
- Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman Effect.

Devasthal Telescope

- The world-class **3.6 meter optical telescope** set up at Devasthal is **Asia's largest fully steerable** optical telescope. Devasthal is a **mountain peak in Uttarakhand**.
- It was set up in 2016 by **Aryabhata Research Institute of Observational Sciences (ARIES)**, an autonomous research institute of the **Department of Science & Technology (DST)** with support from Belgian government.
- It has assumed global importance for observing a number of time-critical cosmic explosive events such as Gamma Ray Bursts and Supernovae. It is an international facility for people from different parts of the world to compete for observation and machine time by submitting research proposals.
- The facility **established India's role as a global player in astronomy research** and is facilitating strong future collaborations with national, international institutions and industries.
- The technological know-how gained from the development of this telescope and back-end instruments are **beneficial for optical facilities planned for future such as the Thirty Meter Telescope** – one of the mega projects in which India is participating.

Some flagship international partnerships which India has driven:

- **Mission Innovation:**
 - India played a crucial role in sowing the seed of 'Mission Innovation', launched as a partnership of 20 countries in 2015.
 - It aims to boost research, development and innovation and related investment **in clean energy**.
- **Dutch Indian Water Alliance for Leadership Initiative (DIWALI)**
 - In order to find solutions for water related challenges, a platform called DIWALI has been developed in which **India and Netherlands** could participate for designing solutions for water challenges.
 - The consortium of experts from the two countries would explore the potential and sustainability of Dutch Solutions to resolve challenges in specific water challenged sites in India which are scalable, sustainable and affordable.

● Global Partnerships on Artificial Intelligence (GPAI)

- India has **joined the GPAI as a founding member** to support the responsible and human-centric development and use of Artificial Intelligence (AI).
- The country will be participating in the **global development of Artificial Intelligence**, leveraging its experience around use of digital technologies for inclusive growth.

Sputnik V

- Dr Reddy's Laboratories has approached India's apex drug regulatory body, **Drug Controller General of India**, for emergency approval of **Sputnik V**.
- Sputnik V is a vaccine that **uses two different human common cold viruses (adenovirus)** that have been modified so that the gene causing the cold infection is removed and instead replaced with a code to make **SARS-CoV-2's 'spike protein'**.
- The spike proteins are the spikes seen on the surface of the virus, which allows it to penetrate the cells and replicate.
- The **human adenoviruses then act as a vehicle to transport this code to the cells** when a person is vaccinated, so that the body can develop an immune response in the form of antibodies to protect it in the event the real virus tries to infect.
- The vaccine, **named after the first Soviet space satellite**, was developed by Moscow's Gamaleya National Research Institute of Epidemiology and Microbiology.
- If cleared by the regulator, **Sputnik V would not only become** the third Covid-19 vaccine to be approved here, but also a **potentially more promising vaccine** in terms of its ability to prevent symptomatic Covid-19 cases in those vaccinated.
 - This is because interim results published in The Lancet from ongoing phase 3 trials of Sputnik V in Russia showed the vaccine demonstrated an efficacy rate of 91.6 per cent.
 - The **efficacy of a vaccine shows its ability to prevent symptomatic cases of Covid-19** in the population being inoculated.
- Earlier, India had approved the use of Bharat Biotech's Covaxin and Serum Institute of India's Covishield.
- **Approval Procedure:**
 - Once the application to the **Central Drugs Standard Control Organisation** is submitted, the request will be studied by a **Subject Expert Committee (SEC)**.
 - The SEC will make recommendations about whether a restricted approval should be given to Sputnik V on an emergency basis in India.
 - Based on these recommendations, the **Drug Controller General of India** will take a call on whether Sputnik V will be allowed for use in India at this stage of the pandemic.

Assessment of Climate Change over the Indian Region Report

The Assessment of Climate Change over the Indian Region report has stated that **Snowfall over the higher reaches of the Hindukush Himalayan mountain ranges has been increasing** in recent decades, which has shielded the region from glacier shrinkage.

Highlights Of The Report

- The overall climate along the Hindukush Karakoram region is undergoing warming at a higher rate during the winter season as compared to other seasons. Besides, the **warming reported from this region is higher than global mean temperatures.**
- The decadal warming trend recorded over these ranges from 1951 to 2014 was 1.3 degree Celsius. This is a **rise from 0.16 degree Celsius recorded from 1900 to 1950**, when global warming was less pronounced.
- The Climate Assessment report has forecast **an increase in annual mean surface temperature by 2.2 degree Celsius during 2040 – 2069** and a further increase by 3.3 degree Celsius during 2070 – 2099, along these ranges.
- Weather dynamics is intricate in the Himalayan region, arising due to **extensive interactions of tropical and extratropical weather systems.** The Himalayas have been **warming at a faster rate than the rest of Indian land mass during 1951 – 2018.**
- **The snow cover** over the Hindukush Karakoram ranges has shown varying tendencies from 1980 to 2018, with moderate **declining rate observed since 2000.**
- About 50 per cent of the region's annual precipitation occurs during winter months, with snowfall being the primary source for water for the rest of the dry months of the year. Monsoon causes precipitation during summers too. Due to this warming trend, there is an expected increase in the precipitation projected over the region.

Importance of Hindukush Karakoram Ranges

- The Hindukush Karakoram ranges, along with the Tibetan Plateau, are the **main drivers of the world's strongest monsoon systems** — the Indian Summer Monsoon.
- These ranges form the **source to 10 major river systems in Asia**, supporting drinking water, irrigation and power supply to 1.3 billion people in the continent. Major Indian rivers which replenish due to the melted snow are Indus, Ganges and Brahmaputra.
- After the North and the South poles, the Hindukush – Karakoram ranges, along with the Tibetan Plateau, hold the **largest reserves of fresh water and are known as the 'Third Pole'.**

Centre for Wetland Conservation and Management (CWCM)

- Ministry of Environment, Forest and Climate Change has announced the establishment of a Centre for Wetland Conservation and Management (CWCM), as a part of the National Centre for Sustainable Coastal Management (NCSCM), Chennai.
- It would **address specific research needs and knowledge gaps** and will aid in the application of integrated approaches for conservation, management and wise use of the wetlands.
- WCM would serve as a knowledge hub and enable exchange between State/ UT Wetland Authorities, wetland users, managers, researchers, policy-makers and practitioners.

Additional Information

- India has nearly 4.6% of its land as wetlands, and **has 42 sites designated as Wetlands of International Importance (Ramsar Sites).**
- The year 2021 commemorates the **50th anniversary of the signing of the Ramsar Convention** on Wetlands on 2 February 1971 in Ramsar, Iran, celebrated annually as **World Wetlands Day.**

Extinction Rebellion

- Delhi Police have named three environmental activists, who are volunteers of this global environment movement seeking to call attention to the climate change emergency, in the Greta Thunberg ‘toolkit’ case.
- **Greta Thunberg ‘toolkit’ case:** The three activists have been accused of collaborating with a pro-Khalistani group to create a toolkit to ‘defame India across the globe on the issue of three agri laws’. The toolkit, first shared by Swedish teenage climate activist Greta Thunberg on February 4, has been claimed as the proof of the Khalistani conspiracy against India by many critics.

What is Extinction Rebellion?

- The global movement Extinction Rebellion, also referred to as ‘XR’, describes itself as a “decentralised, international and politically non-partisan movement using non-violent direct action and civil disobedience to **persuade governments to act justly on the Climate and Ecological Emergency**”.
- XR was **launched in the United Kingdom** in October, 2018, as a response to a report by the United Nations Intergovernmental Panel on Climate Change (IPCC), which declared that “**we only have 12 years to stop catastrophic climate change and our understanding that we have entered the 6th mass extinction event**”.
- The group uses an **hourglass inside a circle as its logo**, to represent time running out for many species.
- The movement now has a **presence in 75 countries, including India**.



Carbon Watch -India’s First App To Assess One’s Carbon Footprint

- **Chandigarh** became the first state or Union Territory in India to launch Carbon Watch, a mobile application to **assess the carbon footprint of an individual**.
- **Carbon footprint** is the amount of greenhouse gases-especially carbon dioxide-released into the atmosphere by a particular human activity.

How does the app Carbon Watch work?

- As a person downloads the application, they will need to fill details in four parts — **Water, Energy, Waste Generation and Transport (Vehicular movement)**. They have to provide details such as the average units of fresh water billed per month, monthly billing average of electricity units, monthly distance travelled by bus etc.
- With the mentioned information, the mobile application will automatically calculate the carbon footprint of the individual. It will also **suggest methods to reduce the carbon footprints**. The application will suggest ways as per the information furnished by the individuals.
- The application will also provide information such as the **national and world average of the emission**, and the individual’s level of emission generation.

Making Peace with Nature Report: UNEP

- Ahead of the fifth United Nations Environment Assembly (UNEA-5), **UNEP** has released 'Making Peace with Nature' Report.
- The assembly will be held on February 22-23, 2021 on the theme '**Strengthening Actions for Nature to Achieve the Sustainable Development Goals**'.

Key Highlights Of The Report

- The report draws a pathway for a shift to circular economies and fairer societies that tackles **climate change, biodiversity loss and pollution**.
- Inequity in economic growth has left 1.3 billion people poor. At the same time, extraction of **natural resources has multiplied three times** creating a planetary emergency.
- More than one million of the estimated 8 million **plant and animal species are increasingly at risk of extinction**. Every year, **nine million people die prematurely due to pollution**.
- Even though the causes and mechanisms of climate change, biodiversity loss and land degradation are complex, these should be considered together. Three sustainable development goals — **poverty alleviation, food and water security and good health for all** — will also be reached by addressing environmental crisis.
- New variants of coronavirus has made the fight against COVID-19 challenging and the pandemic may soon turn endemic in many countries. In context of this, the report cautions **how ecosystem degradation heightens the risk of pathogens** making the jump from animals to human.
- It has strongly advocated for importance of a '**one health**' approach that considers human, animal and planetary health together.

Way forward

- Climate change, biodiversity loss and land degradation should be tackled together by transforming the world's relationship with nature. It calls for strengthened action to protect and restore nature and **nature-based solutions** to achieve the sustainable development goals in its three social, economic and environmental dimensions.
- It presents a strong case for **innovation and investment to tackle climate, biodiversity and pollution** —the three environmental emergencies within the framework of sustainable development goals.
- It advocates for **advancements in science and bold policymaking for a carbon neutral world by 2050**, while bending the curve on biodiversity loss and curbing pollution and waste.
- **Natural capital** can be included by the governments **to measure the economic performance**. Nations are advised to **put a price on carbon** and shift trillions of dollars in subsidies from fossil fuels, non-sustainable agriculture and transportation towards low-carbon and nature-friendly solutions.
- A sustainable economy driven by **renewable energy and nature-based solutions** will create new jobs, cleaner infrastructure and a resilient future.

Coal Burning Responsible For Heavy Air Pollution In India: IEACCC Study

The study by the International Energy Agency's Clean Coal Centre (IEACCC) reported that **Coal-based thermal power stations with no pollution control technology** are responsible for over half sulphur

dioxide (SO₂), 30 per cent oxides of nitrogen (NO_x), about 20 per cent particulate matter (PM), among other man-made emissions in the country.

Findings Of The Study

- **Unabated burning of coal in thermal power stations** and a delay in implementation of latest **carbon capture storage technology** are among major reasons of air pollution in India,
- The study recommended **implementation of emission norms** at coal-based thermal power stations (TPP) at the earliest. It was techno-economically possible to meet the norms if there were no further delay or dilution.
- It added that **transport and other industrial sectors stand second** to coal-based thermal power stations as a contributor to air pollution.

Retire Old Fleet And Upgrade

- The IEACCC study recommended **retirement of old coal-fired power stations** to limit pollution and improve the fleet efficiency.
- It noted that the newest **advanced technology plants in India** — such as Mundra and Sassan in Gujarat — **are struggling financially**, causing stakeholders to **lose confidence in investing in cleaner and advanced technology**.
- **The current energy efficiency schemes**, including performance and achieve trade scheme, efficiency standards scheme and carbon pricing schemes, **are not ambitious enough to drive significant improvement**. Retirement of inefficient fleet and adoption of clean coal technology can only bring in a noticeable change.

Carbon Capture Storage

- **Adopting carbon-capture storage (CCUS)** is equally important to reduce emissions. CCUS is the **process of capturing waste carbon dioxide, transporting it to a storage site** and depositing it where it will not enter the atmosphere.
- **Land forms along the coasts of Maharashtra, Andhra Pradesh and Tamil Nadu** as well as parts of Rajasthan can **act as good reserves**. The study called the international community through multi-national banks and other sources to **invest in deployment of CCUS in India**. It also urged the country to include it as a part of its climate commitment.
- If pilot demonstrations are carried out by the next few years, commercial installation of CCUS can begin by 2030.

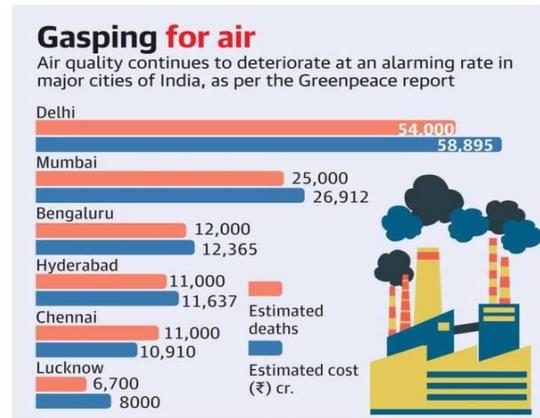
Cost To The Economy Due To Air Pollution

- Air pollution claimed approximately 54,000 lives in Delhi in 2020, according to a Greenpeace Southeast Asia analysis of cost to the economy due to air pollution.
- **Six Indian cities** — Delhi, Mumbai, Bengaluru, Chennai, Hyderabad and Lucknow — feature in the global analysis.

Key Findings

- Globally, approximately **1,60,000 deaths have been attributed to PM 2.5 air pollution** in the five most populous cities — **Delhi, Mexico City, Sao Paulo, Shanghai and Tokyo**. The damage is “equally worrying” in other Indian cities.

- An estimated **25,000 avoidable deaths in Mumbai in 2020** have been attributed to air pollution. Bengaluru, Chennai and Hyderabad estimated an approximate 12,000, 11,000, and 11,000 avoidable deaths respectively due to polluted air.
- According to the report, the **‘Cost Estimator’, an online tool that estimates the real-time health impact and economic cost** from fine particulate matter (PM 2.5) air pollution in major world cities, was deployed in a collaboration between Greenpeace Southeast Asia, IQAir and the Centre for Research on Energy and Clean Air (CREA).



- To show the impact of air pollution-related deaths on the economy, the approach used by Greenpeace is called **‘willingness-to-pay’ — a lost life year or a year lived with disability is converted to money** by the amount that people are willing to pay in order to avoid this negative outcome. The cost estimator also sustained the estimated air pollution-related **economic losses of ₹1,23,65,15,40,000**.
- Last July, Greenpeace had said that of the 28 global cities studied, **Delhi bore the highest economic cost of air pollution with an estimated loss of 24,000 lives** in the first half of 2020 despite a strict COVID-19 lockdown. In Mumbai, air pollution from PM 2.5 and NO2 was responsible for the loss of an estimated 14,000 lives since January 1, 2020.

Glacial Lake Outburst Floods (GLOFs)

A glacier break in Uttarakhand's Chamoli district triggered huge flooding followed by the evacuation of thousands of people.

What Is A Glacier Outburst And What Causes This

- Glacial lake outburst floods (GLOFs) occur from an **unstable natural dam formed from a glacial retreat**.
- **Glaciers are large bodies of ice moving slowly**. So, when a glacier retreats, it leaves behind a large impression in the ground, filling it with water and a lake is formed. This is known as a **moraine**, which can be impounded by precarious pile of debris and buried ice.
- The moraine dammed lakes weaken as the water level rises and the glacier retreats. They might crumble under pressure from the swelling lake, leading to massive floods.
- Glacial lakes may vary in volume but may hold millions to hundreds of millions of cubic metre of water. The outburst of water can also happen due to erosion, an avalanche of snow or rock, an earthquake or volcanic eruptions under the ice.
- In the **Hindu Kush Himalaya, moraine-dammed glacial lakes are common** and numerous GLOF events have been traced back to the failure of moraine dams. A moraine-dammed lake forms as a glacier retreats, and meltwater fills the space between the proglacial moraine (in front of the glacier) and the retreating glacier.
- The glacial outbursts are also related to global warming. As the temperature soars during summers, the glaciers retreat, leaving behind water-filled, unstable moraine dammed lakes.

The Farakka 'Lock' And Hilsa

- It has been reported that an old project to **facilitate the movement of hilsa upstream along the Ganga** to its spawning grounds of yore may come to fruition this year.
- Back in February 2019, the government had unveiled a project to redesign the navigation lock at the Farakka Barrage at a cost of Rs 360 crore to create a “fish pass” for the hilsa.

Hilsa

- In scientific parlance, the hilsa is an **anadromous fish**. That is, **it lives most of its life in the ocean**, but during the rainy season, when it is time to spawn, the hilsa moves towards the estuary, where the rivers of India and Bangladesh meet the Bay of Bengal.
- A large part of the shoal travels upstream in the Padma and the Ganga — some are known to move towards the Godavari, and there are records of hilsa migration to the Cauvery.
- Historical records also show that until the 1970s, the hilsa would swim the Ganga upstream to Allahabad — and even to Agra.



The Barrage And Its Navigation Lock

- The Farakka Barrage, which **became operational on the Ganga in 1975**, disrupted the westward movement of the hilsa.
- The barrage had a **navigation lock that stopped the fish from swimming upstream** beyond Farakka.
- In 2016, then Union Water Resources Minister told Lok Sabha about plans to create “**fish ladders**” to help the fish navigate the obstacle posed by the barrage.
- **Fish passes** — also known as fish ladders or fish ways — aim to assist fish in crossing obstacles presented by dams and barrages. They usually consist of small steps that allow the fish to climb over the obstacles and enable them to reach the open waters on the other side.



Migratory Birds Leave Chilika

- Migratory birds in and around **Chilika lake and Bhitarkanika National Park** have started their homeward journey a couple of weeks earlier than other years, as temperatures in Odisha began to soar.
- This winter, 1,242,826 migratory birds belonging to 190 species arrived at the water bodies around Chilika Lake, **Asia's largest salt-water lagoon** and 136,092 birds belonging to 121 species arrived at **Bhitarkanika, the second-largest mangrove forest in India**.
- They flew in from places as far off as Siberia, Afghanistan, Iran, Iraq, the Himalayan region and central Europe.

About Chilika Lake

- It is a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of **Odisha** state on the east coast of India, at the mouth of the **Daya River**, flowing into the Bay of Bengal, covering an area of over 1,100 km².
- It is the **largest coastal lagoon** in India and the **second largest lagoon in the world**.
- Chilika Lake was designated as the **first Indian wetland of international importance** under the Ramsar Convention In 1981.
- It is the largest wintering ground for migratory waterfowl found anywhere on the Indian sub-continent.

Coelacanth

- Palaeontologists from University of Portsmouth claimed they have discovered fossils of coelacanth, **a giant fish that have been even around before the dinosaurs**.
- They pegged the fossil to be **66 million years old** — putting it in the **Cretaceous era**. Coelacanths can grow as big as white sharks.
- Coelacanths first evolved 400 million years ago — 200 million years before the first dinosaurs. It had long been **believed to be extinct, but in 1938, a living coelacanth was found off South Africa**.
- There was something unique about its bone as was composed of many thin bone plates rather than being a single structure. The size of its lungs indicated that the fish could have been five metres long.
- The fossil had been embedded in a block of phosphate, backed with plaster and covered in a coating of lacquer, which had caused the bones to turn brown. It was found next to a pterodactyl, which helped in determining the fossil's age.



Mandarin Duck

- Considered the **most beautiful duck in the world**, the Mandarin duck made an appearance in Assam's Tinsukia after more than a century.
- The Mandarin duck was first identified by Swedish botanist and zoologist in 1758.
- The eBird website, a platform that documents birds world over, describes it as a “small-exotic looking bird” **native to East Asia**.
- The migratory duck breeds in Russia, Korea, Japan and northeastern parts of China. It now has established populations in Western Europe and America too.
- The duck **rarely visits India** as it does not fall in its usual migratory route. It was recorded in 1902 in Dibru river. More recently, it was sighted in **Manipur’s Loktak Lake** in 2013, and in **Manas National Park and Tiger Reserve in Assam**.
- While the duck is not a globally threatened species, spotting one is always considered significant because they only make “rare appearances”.



Brookesia Nana- World's Smallest Reptile

- A chameleon discovered in the island country of **Madagascar** by scientists from Germany and Madagascar **may be the world's smallest adult reptile.**
- The team found one male and one female of the species, **named Brookesia nana**, during an expedition in 2012. Previously, the chameleon species **Brookesia micra** was thought to be the smallest.
- Reptiles come in a wide size range. **The longest, the reticulated python**, at 6.25 m is almost as long as 289 Brookesia nanas. The gharial is more than 200 Brookesia nanas long, while the king cobra can measure up to nearly 180 Brookesia nanas.
- Madagascar is home to tiny lizards and also the smallest species of snakes. One possible reason for such small species is the so-called "**island effect**" that causes species on small islands to get smaller.
- But the study authors note that the **new chameleon occurs in a rainforest**. "These forests are quite well connected with others across northern Madagascar, and so this tiny new chameleon **violates the pattern of the smallest species being found on small islands.**"



Olive Ridley Sea Turtles

- Orissa High Court took suo motu cognisance on the death of around 800 Olive Ridley sea turtles due to negligence by Odisha's forest and fisheries departments.
- The state's **Gahirmatha Marine Sanctuary** is known as the world's largest rookery of sea turtles.

About Olive Ridley Sea Turtles

- The Olive ridley turtles are the **smallest and most abundant of all sea turtles** found in the world, inhabiting warm waters of the Pacific, Atlantic and Indian oceans.
- These turtles, along with their cousin the Kemps ridley turtle, are best known for their **unique mass nesting** called **Arribada**, where thousands of females come together on the same beach to lay eggs.
- They are carnivores, and feed mainly on jellyfish, shrimp, snails, crabs and a variety of fish and their eggs
- **The coast of Orissa in India is the largest mass nesting site** for the Olive-ridley, followed by the coasts of Mexico and Costa Rica.
- **Conservation Status**
 - **Vulnerable** by the IUCN Red list.
 - **Schedule - 1** animal under Wildlife Protection Act, 1972.
 - International trade in these turtles and their products is banned under CITES Appendix I
- **Major Threats:**
 - Unfriendly fishing practices, development and exploitation of nesting beaches for ports, and tourist centres.



- They are still extensively poached for their meat, shell and leather, and their eggs, though illegal to harvest, have a significantly large market around the coastal regions.
- Most severe threat is the accidental killing of adult turtles through entanglement in trawl nets and gill nets due to uncontrolled fishing during their mating season around nesting beaches.

Black-Necked Crane

- A group of Buddhist monks in Tawang district has opposed the Arunachal Pradesh government's renewed push for hydropower projects.
- Most of these projects are proposed to be constructed in the Tawangchu and Nyamjangchu river basins, **the nesting sites of the endangered black-necked crane.**

About Black-Necked Crane

- **Habitat and Distribution:** The high altitude wetlands in the Tibetan plateau are the main breeding ground of the species. These wetlands with small mounds provide an excellent habitat to the birds for breeding. This species is found in **India, China and Bhutan.**
- **Conservation Status**
 - **Schedule I of Wildlife (Protection) Act 1972.**
 - **IUCN Red List:** Near Threatened.
- **Threats:**
 - Damage to the eggs and chicks, caused by feral dogs. These dogs are owned both by armed forces as well as by the local nomads.
 - The human pressure on the wetlands, the primary habitat of cranes, has increased tremendously over the last decade. The increased grazing pressure on the limited pastures near the wetlands is also leading to the degradation of the wetland habitat.



Miscellaneous

- **World Cancer Day** is an international day marked on **February 4** to raise awareness of cancer and to encourage its prevention, detection, and treatment. **Theme: I Am and I Will.** It originated at the **first World Summit Against Cancer in 2000**, held in Paris and was founded by **Union for International Cancer Control (UICC)** to support the goals of **World Cancer Declaration**, written in 2008.
- **World Radio Day (WRD)** is observed on **February 13** every year to promote the medium, increase accessibility, and encourage more people to use it. The day was first proclaimed by the **member states of UNESCO in 2011** and later adopted internationally by the UN General Assembly in 2012. In India, the history of radio broadcasting traces back to **August 1920** when one of the first radio broadcasts was transmitted from the roof of a building. Three years later, the first radio programme was aired by the **Radio Club of Bombay.**
- **World Wetlands Day** is celebrated internationally each year on 2 February to raise public awareness of wetland values and benefits. It marks the anniversary of the signing of the **Convention on Wetlands of International Importance (Ramsar Convention) in Ramsar, Iran, on 2 February 1971.**
- **Koo App:** With a yellow bird as its logo, Koo is an **India-made micro-blogging platform** that is similar to Twitter. It aims to facilitate the participation of Indians on the internet in their mother tongue

and supports five languages currently – **English, Hindi, Kannada, Tamil, Marathi and Telugu**. Unlike Twitter which has a cap of 280 characters per tweet, Koo allows you to use up to 400 characters. Apart from text, it supports audio and video recording and sharing of pictures and web links.

- Infamous as **India's 'phishing capital'**, **Jharkhand's** tiny Jamtara district now has 45 public libraries diverting youth away from cybercrime. Phishing is a **cybercrime** in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution to lure individuals into providing sensitive data such as **personally identifiable information**, banking and credit card details, and passwords.
- NASA appointed **Indian-American Bhavya Lal** as its acting **Chief of Staff. Established in 1958**, NASA is **an independent agency** of the U.S. federal government responsible for the civilian space program, as well as aeronautics and space research.
- The **11th India-EU Macroeconomic dialogue** was held virtually through video conferencing. The dialogue covered all the dimensions including economic, political. Security, environment, research and innovation, trade and investment.
- **India and Ethiopia** signed two agreements related to visa facilitation and leather technology.
- India has offered a **\$40 million Line of Credit to the Maldives** in a bid to boost the sports infrastructure of the country. This announcement was made by EAM visit to Maldives. During this visit, India also handed over 100,000 additional doses of COVID-19 vaccine to Maldives.
- PM Modi addressed India-Australia Circular Economy Hackathon (I-ACE). The I-ACE Hackathon was **organized jointly** by Atal Innovation Mission, NITI Aayog, India and Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia. It was established with an aim of enabling students and start-ups/MSMEs from both countries to present innovative solutions for the **development of a circular economy** across the food system value chain.
- The **1st India-EU High Level Dialogue on Trade and Investment** was held in February 2021. It was held with an objective for a *Ministerial level guidance towards the bilateral trade and investment relations*. The establishment of this Dialogue was a **major outcome of the 15th India-EU Leader's Summit** held in July 2020.
- Indian Air Force participated in the **Sri Lankan Air Force's 70th anniversary**. The IAF's **aerobatic display teams**, the **rotary wing 'Sarang'**, **fixed-wing 'Suryakirans'** and **Light Combat Aircraft Tejas** participated in the celebration.
- **Indian Navy did not participate** in the two-day maritime exercise of Iran and Russia in the Indian Ocean Region. The naval exercise of Iran and Russia known as **Iran-Russia Maritime Security Belt 2021**. Growing military cooperation between Iran and Russia comes at a sensitive time with Tehran and Washington locked in a stalemate

