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MSP — the factoids versus the facts

According to one definition, a **factoid** is "**an item of unreliable information that is reported and repeated so often that it becomes accepted as fact**". After the passage of the **three controversial farm laws**, the **Minimum Support Price (MSP)** — not mentioned in the laws — has gained a lot of attention. The **predominance of factoids about MSP** and procurement has meant that the debate has yielded more chaff than grain.

The **MSP is meant to set a floor below which prices do not fall**, and is **announced by the government for 23 commodities**. It is the price at which the government 'promises' to buy from farmers if market prices fall below it. In fact, however, **government procurement is heavily concentrated on wheat and rice**, with other crops barely being procured.

Over the years, **factoids about the MSP** and **government procurement** have gained so much traction that the retired gentleman in the local park cites them as facts. These pertain to how many have benefited from the MSP and who has benefited from it. According to these popular beliefs, **few (6%) farmers benefit**, **only large farmers benefit**, and **only farmers of Punjab and Haryana** (to some extent, western Uttar Pradesh) benefit.

More States under MSP

In a forthcoming paper, we use **data on State-wise procurement from the Food Corporation of India (FCI)** and **agricultural household data for 2012-13** from the **National Sample Survey (NSS)**, after which these data are not available, to set the record straight on these three factoids.

One, the **6% figure from the NSS data 2012-13** relates to paddy and wheat alone. Even here, however, among those who sold any paddy/wheat, the numbers are higher — 14% and 16%.

Two, **the Government of India has made a systematic effort** to expand the reach of MSP to more States, via the **Decentralized Procurement (DCP) Scheme.** Introduced **in 1997-98**, it was not very popular in the initial years and began to be adopted by States in

earnest only around 2005. **Under the DCP scheme**, the **responsibility of procurement devolved to the State governments** which were reimbursed pre-approved costs. FCI data suggest that by July 2015, as many as 15 States had taken up this programme, though not all were implementing it with equal enthusiasm. Largely on account of it, procurement began moving out of 'traditional' States (such as Punjab, Haryana and western Uttar Pradesh). **Until 2000**, **barely 10% of wheat and rice was procured outside the traditional States.** By **2012-13, the share of the DCP States rose to 25-35%.**

In the case of paddy, **Chhattisgarh and Odisha have been the star performers.** These States today **contribute about 10% each to the total paddy procurement** in the country. **For wheat**, **decentralised procurement has taken off in Madhya Pradesh** in a big way, accounting for **approximately 20% of wheat procurement.** In 2020-21, wheat procurement from Madhya Pradesh surpassed that from even Punjab. Among agricultural households which sell paddy under the procurement system, while **9% and 7% come from Punjab and Haryana**, **11% are in Odisha** and **33% are in Chhattisgarh.** An overwhelming majority of agricultural households selling wheat to the procurement agencies come from **Madhya Pradesh (33%)** compared to **22% from Punjab** and **18% from Haryana.** That only Punjab and Haryana farmers have benefited from the MSP is now truly a thing of the past.

Which farmer benefits

Three, as per the factoid, **only large farmers have benefited.** In fact, **procurement has benefited the small and marginal farmers in much bigger numbers than medium and large farmers**. At the all-India level, among those who sold paddy to the government, **1% were large farmers**, owning over 10 hectares of land. Small and marginal farmers, with less than 2 hectares accounted for 70%. The **rest (29%) were medium farmers (2-10 hectares)**.

In the case of wheat, **3% of all wheat-selling farmers were large farmers.** More than half (56%) were small and marginal farmers.

In Punjab and Haryana, the **share of small and marginal farmers is not**

insignificant (**38% and 58%**, respectively, among paddy sellers). In the non-traditional States that adopted the DCP scheme, the overwhelming majority of farmers who sell to State procurement agencies are small and marginal. In Chhattisgarh and Odisha, for example, **small and marginal farmers comprise 70-80% of all sellers to government agencies.** Similarly, in Madhya Pradesh, nearly half (45%) of those who sell wheat to government agencies are small or marginal farmers.

To recap, the facts are as follows: **one, the proportion of farmers who benefit from (even flawed) government procurement policies is not insignificant.** Two, **the geography of procurement has changed in the past 15 years.** It is less concentrated in traditional States such as Punjab, Haryana and western Uttar Pradesh, as DCP States such as Chhattisgarh, Madhya Pradesh and Odisha have started participating more vigorously. Three, perhaps most importantly — it is predominantly the small and marginal farmers who have benefited from the MSP and procurement, even if the size of the benefits may be larger for larger farmers. This is true not just in the DCP States, but also in the traditional States.

The true picture

Getting the facts right is an important first step in resolving the issues facing the agricultural sector and farmers' issues. We have picked **three factoids of many as an illustration of how little we know about how the MSP works.** The range of claims made regarding, for example, the **consequences of the MSP on diversification** need to be examined as well. Among **Punjabis who cultivated any crop**, **21-37% did not grow paddy and wheat.** Among all agricultural households including those which did not cultivate a crop (indicating more diversified sources of agricultural income), a larger proportion (58 and 48%, respectively) stayed away from paddy and wheat, suggesting that procurement in Punjab may not have prevented diversification to the extent we imagine.

Similarly, confusion reigns about other areas of interest from the point of view of the new farm laws. It is widely believed that for the first time, the **new laws allow farmers to sell outside the Agricultural Produce Market Committee (APMC).** Even for

commodities for which MSP is announced, the proportion of sales via the mandi range is **only between 10-64%**; the demand for the MSP originates because the prices paid outside the mandi tend to be much lower. Countrywide, sales to mandi or government procurement agencies fetched on average **13.3% higher prices for paddy** and **5.8% for wheat.**

We are not unsympathetic to those who question the heavy concentration of wheat and rice in government procurement (millets are better suited to agro-climatic conditions prevailing in large parts of the country, more nutritious and also grown by small and marginal farmers), to the flaws in the current mandi system, or how the MSP is implemented. Yet, the debate — popular, academic or political — on these issues must take into account the changed geography of procurement and the profile of the seller.

ECONOMY

1.1 Fiscal Deficit continued to soar

Fiscal Deficit has continued to soar in September to reach Rs 9.1 lakh crore, or almost 115% of the budget target of Rs 7.96 lakh crore for 2020-21, as per the CAG.

What is 'Fiscal Deficit'?

- Fiscal Deficit is the **difference between the total income of the government (total taxes and non-debt capital receipts) and its total expenditure**.

- A fiscal deficit situation occurs **when the government's expenditure exceeds its income**. This difference is calculated both in absolute terms and also as a percentage of the Gross Domestic Product (GDP) of the country.

- A recurring high fiscal deficit means that the government has been spending beyond its means.

- The government describes fiscal deficit of India as "the excess of total disbursements from the Consolidated Fund of India, excluding repayment of the debt, over total receipts into the Fund (excluding the debt receipts) during a financial year".

Income and Expenditure of Government

1. **Revenue receipts of the government** – Corporation Tax, Income Tax, Custom Duties, Union Excise Duties, GST and taxes of Union territories. Note – GST or Goods and Services Tax which is collected by the Centre includes CGST (Central Goods and Services Tax), IGST (Integrated Goods and Services Tax) & GST Compensation Cess.

2. **Non-tax revenues** – Interest Receipts, Dividends and Profits, External Grants, Other non-tax revenues, Receipts of union territories.

3. **Expenditure of Government** – Revenue Expenditure, Capital Expenditure, Interest Payments, Grants-in-aid for creation of capital assets.

Capital Receipts

- All non-revenue receipts of a government are known as capital receipts. Such receipts are for investment purposes and supposed to be spent on plan-development by a government.

- The capital receipts in India include the following –

1. Loan Recovery – The money the government had lent out in the past in India (states, UTs, PSUs, etc.) and abroad their capital comes back to the government when the borrowers repay them as capital receipts.

2. Borrowings by the Government – This includes all long-term loans raised by the government inside the country (i.e., internal borrowings) and outside the country (i.e., external borrowings).

3. Other receipts by the Government – This includes many long-term capital accruals to the government through the Provident Fund (PF), Postal Deposits, various small saving schemes (SSSs) and the government bonds sold to the public (as Indira Vikas Patra, Kisan Vikas Patra, Market Stabilisation Bond, etc.).

Capital Expenditure

It includes so many heads in India –

- Loan disbursals by the Government – The loans forwarded by the government might be internal (i.e., to the states, UTs, PSUs, FIs, etc.) or external (i.e., to foreign countries, foreign banks, purchase of foreign bonds, loans to IMF and

WB, etc.).

- Loan repayments by the Government – Again loan payments might be internal as well as external. This consists of only the capital part of the loan repayment.

- Plan expenditure of the Government – This consists of all the expenditures incurred by the government to finance the planned development of India as well as the central government financial supports to the states for their plan requirements.

- Capital Expenditures on Defence by the Government – This consists of all kinds of capital expenses to maintain the defence forces, the equipment purchased for them as well as the modernisation expenditures.

- General Services – These also need huge capital expenditure by the government—the railways, postal department, water supply, education, rural extension, etc.

- Other liabilities of the Government – Basically, this includes all the repayment liabilities of the government on the items of the Other Receipts.

How is Fiscal Deficit calculated?

- **Fiscal Deficit** = Total expenditure of the government (**capital and revenue expenditure**) – Total income of the government (**Revenue receipts + recovery of loans + other receipts**)

- If the total expenditure of the government exceeds its total revenue and non-revenue receipts in a financial year, then that **gap is the fiscal deficit for the financial year**.

- The fiscal deficit is usually mentioned as a percentage of GDP. For example, if the gap between the Centre's expenditure and total income is Rs 5 lakh crore and the country's GDP is Rs 200 lakh crore, the fiscal deficit is 2.5% of the GDP.

What causes fiscal deficit?

- Sometimes, the governments spend on handouts and other assistance to the weak and vulnerable sections of the society such as the farmers and the poor.

- A high fiscal deficit **can also be good for the economy if the money spent goes into the creation of productive assets** like highways, roads, ports and

airports that boost economic growth and result in job creation.

- The government meets fiscal deficit **by borrowing money**. In a way, the total borrowing requirements of the government in a financial year is equal to the fiscal deficit in that year.

1.2 Vijay Mallya extradition: Supreme Court gives government six weeks to file status report

The Supreme Court has refused a plea made by the lawyer of fugitive businessman Vijay Mallya to discharge him from the case and gave the Union government six weeks to file a status report on the progress made in extraditing him from the United Kingdom.

Extradition is the legal process by which a person is transferred from one country to another without the person's consent. Here, a governmental authority formally and legally turns over an alleged criminal to another government for the person to face prosecution for a crime. It is a judicial process, unlike deportation.

Extradition Act 1962

In India, the extradition of a fugitive criminal is governed under the Indian Extradition Act, 1962. This is for both extraditing of persons to India and from India to foreign countries. The basis of the extradition could be a treaty between India and another country. India has extradition treaties with 39 countries currently.

Fugitive Economic Offender Act, 2018 –

- The Act allows for a person to be declared as a fugitive economic offender (FEO) if: (i) an arrest warrant has been issued against him for any specified offences where the value involved is over Rs 100 crore, and (ii) he has left the country and refuses to return to face prosecution.

- To declare a person an FEO, an application will be filed in **a Special Court (designated under the Prevention of Money-Laundering Act, 2002)** containing details of the properties to be confiscated, and any information about the person's whereabouts. The Special Court will require the person to **appear at a specified place at least six weeks from issue of notice**. Proceedings will be terminated if the person appears.

- The Act allows authorities to **provisionally attach properties of an accused, while the application is pending before the Special Court**.

- Upon declaration as an FEO, properties of a person may be confiscated and vested in the central government, free of encumbrances (rights and claims in the property). **Further, the FEO or any company associated with him may be barred from filing or defending civil claims**.

1.3 Why the sugar industry desperately needs export subsidy this season?

The sugar industry has reacted strongly to Union Commerce and Industry Minister Piyush Goyal's announcement that the central government is not considering an extension of its export subsidy for the 2020-21 sugar season. The industry has warned of a 'vertical collapse' in the sector due to excessive stock, whose ramification can be felt in the years to come. Here's why this issue has shaken the sugar industry before the start of an otherwise good season.

Why is the sugar industry rooting for exports even before the start of the season?

- At the start of the (October-November) sugar season, the industry draws up its balance-sheet and takes into consideration **the expected production, the carry forward stock of last season, minus domestic consumption and exports**, if any. This sugar balance-sheet **determines the availability of sugar for the next season**. In case of unusually high stock, ex-mill prices remain low for the present season as well as for the upcoming season, which result in liquidity crisis for the sugar sector.

- For the season which has started, **the annual production is estimated to be 326 lakh tonne** (without any diversion towards ethanol), and the season has started with **opening stock of 107 lakh tonne**.

- However, industry sources estimate sugar production being lower by **20 lakh tonne as mills are expected to produce ethanol**, and thus the **total available sugar balance in this season is expected to be 413 lakh tonne**. After deducting the domestic consumption of 260 lakh tonne, the **opening stock of next season (season of 2021-22) is estimated to be 155 lakh tonne**.

- This unusually high stock, without an export incentive like a government subsidy, will result in a 'vertical collapse of the sector'.

- One way of correcting this inventory is to **promote export of at least 50 lakh tonne of sugar**. If 50 lakh tonne of sugar is shipped out of the country, the opening stock would be 105 lakh tonne, providing the mills a healthy inventory as well as liquidity from exports.

Why are mills reluctant to export sugar without a government subsidy?

The mills' reluctance stems from the **gap between cost of manufacturing and the current price of raw sugar in international markets**. Sugar contracts at international markets are trading at Rs 21-22 per kg, while the cost of production is at Rs 32. The price mismatch has ruled out any export prospects as this would lead to further loss for the mills.

Why can't mills concentrate on ethanol production?

- Recently, the central government has announced a Rs 1-3 per litre rise in the procurement price of ethanol. The industry has estimated that this year, nearly 20 lakh tonne of sugar will be diverted towards producing ethanol. Last year, the central government had announced an interest subvention scheme for mills to augment production of ethanol.

- But diversion to ethanol will require time to materialise. With the present capacity, mills can produce 426 crore litres of ethanol, which would require diversion of 15-20 lakh tonnes of sugar.

- While the government's move to encourage mills towards ethanol production is certainly welcome, it would require more capital and time. For the current season, in case exports are not made viable, not only will India lose its market share, but mills will certainly feel the liquidity crunch.

1.4 Production Linked Incentive Scheme – Key Sectors

The Union Cabinet has given its approval to introduce the Production-Linked Incentive (PLI) Scheme in the following 10 key sectors for Enhancing India's Manufacturing Capabilities and Enhancing Exports.

SECTOR	IMPLEMENTING MINISTRY/DEPARTMENT

Advance Chemistry Cell (ACC) Battery	NITI Aayog and Department of Heavy Industries
Electronic/Technology Products	Ministry of Electronics and Information Technology
Automobiles & Auto Components	Department of Heavy Industries
Pharmaceuticals drugs	Department of Pharmaceuticals
Telecom & Networking Products	Department of Telecom
Textile Products – MMF segment and technical textiles	Ministry of Textiles
Food Products	Ministry of Food Processing Industries
High Efficiency Solar PV Modules	Ministry of New and Renewable Energy
White Goods (ACs & LED)	Department for Promotion of Industry and Internal Tr
Speciality Steel	Ministry of Steel

Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing was notified on 1st April, 2020. It extends **an incentive of 4% to 6% on incremental sales** (over base year) of goods under target segments that are **manufactured in India** to eligible companies, for a period of five years subsequent to the base year (FY2019-20). Now, the scheme has been extended to 10 other key sectors.

Concerns

- The quantum of incentives is to be calculated by a simple formula — that is, **net incremental sales x rate of incentive (4-6 per cent)**. This implies that the incentive is a factor of the incremental production rate, that is, **greater the production, the higher the incentives**. However, the fine print reveals that the **incentives cannot be claimed beyond the financial outlay proposed by the Government, which is ₹40,951 crore**.

- **If the total quantum of incentives exceeds the annual financial outlay, the incentives will be disbursed to all companies on the basis of their net incremental sales**. Therefore, an over-performing company may not be reap the benefits under the scheme in absolute terms.

- On the flip-side, **if one company under-performs but another company over-performs in terms of its net incremental sales**, then any unappropriated incentive amount will be transferred proportionately to the over-performing companies.

- The scheme also provides that an **Empowered Committee (EC) will be constituted which has the power to review and revise rate of incentives, ceilings, eligibility criteria, etc**. Considering that companies investing under the scheme will expect that incentives are granted to them at the promised rates, **any unfavourable change in the rates by the EC in future is likely to become a bone of contention with the Government**.

Does PLI violate WTO subsidy norms?

Subsidies granted by the Indian Government have been a matter of international disputes and are therefore to be examined closely. For instance, in 2019, India lost a case before the World Trade Organisation (WTO) where several incentive schemes such as MEIS, EPCG, and SEZ were challenged on the ground that **such export linked schemes violate international trade agreements between member countries**. While India's appeal is pending, it is imperative to note that while the schemes challenged before the WTO were export linked, **the present scheme is investment and production linked and may not fall foul of international trade agreements**.

Road ahead

- In addition to the scheme for electronic sector, **the Government could also look to implement similar incentive schemes for other sectors such as automobile, pharmaceuticals, FMCG**, etc.

- Further, the government must also **not lose sight of the service industry which has historically been India's strong point**, as far as revenue and employment generation is concerned, but which has rarely been privy to any incentive from the Government.

1.5 Viability Gap Funding for PPP inInfrastructure Projects

The Cabinet Committee on Economic Affairs has approved the continuation and revamping of the Scheme for Financial Support to Public Private Partnerships (PPPs) in Infrastructure Viability Gap Funding (VGF) Scheme till 2024-25 with an outlay of Rs 8,100 crores.

'Public-Private Partnerships'

- Public-private partnerships involve collaboration between a government agency and a private-sector company that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centres.

- Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.

- Public-private partnerships often involve concessions of tax or other operating revenue, protection from liability, or partial ownership rights over nominally public services and property to private sector, for-profit entities.

- Public-private partnerships are typically found in **transport infrastructure such as highways, airports, railroads, bridges, and tunnels**. Examples of municipal and environmental infrastructure include water and wastewater facilities. Public service accommodations include school buildings, prisons, student dormitories, and entertainment or sports facilities.

'Viability Gap Funding'

- For the successful completion of PPP projects, the government has designed Viability Gap Funding (VGF). Viability Gap Finance means **a grant to support projects that are economically justified but not financially viable**.

- The scheme is designed as a Plan Scheme to be **administered by the Ministry of Finance** and amount in the budget are made on a year-to- year basis.

- Such a grant under VGF is provided as **a capital subsidy to attract the private sector players to participate in PPP projects that are otherwise financially unviable**. Projects may not be commercially viable because of long gestation period and small revenue flows in future.

- The VGF scheme was **launched in 2004** to support projects that comes under Public Private Partnerships.

- VGF grants will be available **only for infrastructure projects where private sector sponsors are selected through a process of competitive bidding**. The VGF grant will be disbursed at the construction stage itself but only after the private sector developer makes the equity contribution required for the project.

Sub-schemes under VGF

- **Sub scheme – 1** – This would cater to Social Sectors such as Waste Water Treatment, Water Supply, Solid Waste Management, Health and Education sectors etc. These projects face bankability issues and poor revenue streams to cater fully to capital costs. The projects eligible under this category should have at least 100% Operational Cost recovery. The Central Government will provide maximum of 30% of Total Project Cost (TPC) of the project as VGF and State Government/Sponsoring Central Ministry/Statutory Entity may provide additional support up to 30% of TPC.

- **Sub scheme – 2** – This Sub scheme will support demonstration/pilot social sectors projects. The projects may be from Health and Education sectors where there is **at least 50% Operational Cost recovery**. In such projects, the Central Government and the State Governments together will provide up to 80% of capital expenditure and upto 50% of Operation & Maintenance (O&M) costs for the first five years. The Central Government will provide a maximum of 40% of the TPC of the Project. In addition, it may provide a maximum of 25% of Operational Costs of the project in first five years of commercial operations.

Benefits

The aim of the scheme is to promote PPPs in social and Economic Infrastructure leading to efficient creation of assets and ensuring their proper Operation and Maintenance and make the economically/socially essential projects commercially viable. The scheme would be beneficial to public at large as it would help in creation of the Infrastructure for

the country.

1.6 Implications of Technical Recession

In its latest monthly bulletin, the Reserve Bank of India has dedicated a chapter on the "State of the economy". The idea is to provide a monthly snapshot of some of the key indicators of India's economic health.

As part of the exercise, the RBI has started "nowcasting" or "the prediction of the present or the very near future of the state of the economy". And the very first "nowcast" predicts that India's economy will contract by 8.6% in the second quarter (July, August, September) of the current financial year. It implies India that has entered a "technical recession" in the first half of 2020-21— for the first time in its history.

What is a recessionary phase?

- At its simplest, in any economy, a recessionary phase is the counterpart of an expansionary phase. In other words, **when the overall output of goods and services — typically measured by the GDP — increases from one quarter (or month) to another**, the economy is said to be in an **expansionary phase**. And **when the GDP contracts from one quarter to another**, the economy is said to be in a **recessionary phase**.

- Together, these two phases create what is called **a** "**business cycle"** in any economy. A full business cycle could last anywhere between one year and a decade.

How is a recession different?

- When a recessionary phase sustains for long enough, it is called a **recession**. In other words, when the GDP contracts for a long enough period, the economy is said to be in a recession.

- There is, however, **no universally accepted definition of a recession** — as in, for how long should the GDP contract before an economy is said to be in a recession.

- But most economists agree with the definition that the **National Bureau of Economic Research (NBER) in the United States** uses. According to NBER,

"*During a recession, a significant decline in economic activity spreads across the economy and can last from a few months to more than a year*".

• The NBER's Business Cycle Dating Committee typically looks at various variables — employment, consumption etc — apart from GDP growth to arrive at a decision. It also looks at the "depth, diffusion, and duration" of decline in economic activity to determine whether an economy is in a recession or not.

What is a technical recession?

• While the basic idea behind the term "*recession*" — **significant contraction in economic activity** — is clear, from the perspective of empirical data analysis, there are too many unanswered queries.

• During the 2008 global financial crisis, NBER pegged June 2009 as the end date for the recession but some metrics did not recover for much longer. For instance, "non-farm payroll employment, did not exceed the level of the previous peak until April 2014," according to NBER.

• To get around these empirical technicalities, commentators often consider **a recession to be in progress when real GDP has declined for at least two consecutive quarters**.

• That is how **real quarterly GDP has come to be accepted as a measure of economic activity and a** "**benchmark" for ascertaining a** "**technical recession"**. By this definition, **India entered a recession at the end of September**. The UK is in its third quarter of recession. Brazil and Indonesia are also in recession while South Africa has evaded it until now, but only marginally. China, where the pandemic began, has bucked the trend.

Was India's technical recession unexpected?

No. Given the nature of the problem — the pandemic — as soon as the lockdown was announced in March, most economists expected the Indian economy to go into recession. In fact, most estimates expect the economy to contract for at least one more quarter — that is **October to December**, currently under way. In India's case, Finance Minister Nirmala Sitharaman has expressed hope that India's recession could be already over and that the economy may register positive growth in the current quarter.

1.7 Lakshmi Vilas Bank Crisis

Recently, the **Reserve Bank of India** (RBI) has decided to impose a **30-day moratorium** on Chennai-based **Lakshmi Vilas Bank Ltd** (LVB).

- LVB was placed under the **prompt corrective action (PCA) framework** in September 2019 considering the breach of PCA thresholds as on 31st March, 2019.

  - The RBI has specified certain regulatory trigger points, as a part of prompt corrective action (PCA) Framework, in terms of **three parameters,** i.e. **capital to risk weighted assets ratio (CRAR), net non-performing assets (NPA) and Return on Assets (RoA),** for initiation of certain structured and discretionary actions in respect of banks hitting such trigger points.

  - After taking into consideration various developments, the RBI had come to the conclusion that in the absence of a credible revival plan, with a view to protect depositors' interest and in the interest of financial and banking stability, there is no alternative but to apply to the Central Government for imposing a moratorium under **section 45 of the Banking Regulation Act, 1949.**

- **Challenges Faced by LVB:**

  - **Domino Effect of Yes Bank Crisis:** The LVB episode started unfolding after the RBI and banks led by State Bank of India bailed out fraud-hit **Yes Bank** in **March 2020.**

    - Yes Bank illustrated the widening damage from India's **shadow banking crisis**, highlighted by the **collapse of IL&FS in 2018.**

    - On the same lines, **Punjab and Maharashtra Cooperative Bank** was hit by a loan scam highlighting the riskiness of banks,

especially **cooperative banks.**

- **Declining Net Worth:** The financial position of the LVB has undergone a **steady decline, with continuous losses over the last three years** eroding the bank's net worth.

    - Almost one-fourth of the bank's advances have turned bad assets.

- **Inadequacy to Raise Capital:** LVB has **not been able to raise adequate capital** to address the issues and was also **experiencing the continuous withdrawal of deposits** and **low levels of liquidity.**

- **Governance Issues:** Serious **governance issues** in recent years have led to a deterioration in the performance of the bank.

- **Lack of Promoters:** The functioning of LVB, along many such banks, has been under scrutiny as most of them **do not have strong promoters,** making them targets for mergers.

- **Rising NPAs:** Its gross **non-performing assets** (NPAs) stood 25.4% of its advances as of June 2020, as against 17.3% in 2019. Due to which, it was unable to raise capital to shore up its balance sheet.

    - **NPAs in the banking sector are expected to increase** as the **pandemic affects cash flows** of people and companies.

- **Impact on Investors:**

    - **Equity capital will be fully written off,** which means existing shareholders face a **total loss on their investments** unless there are buyers in the secondary market who may ascribe some value to these.

    - Individual investors will face a loss on their investments in **AT-1 bonds.**

        - As per RBI rules based on the **Basel-III**

framework, AT-1 bonds have **principal loss absorption features,** which can cause a full write-down or conversion to equity.

- **Shares of LVB closed at 20% lower circuit** which means that there will be **only sellers and no buyers.**

  - The lower circuit is the limit below which a stock price cannot trade on a particular trading day.

  - These regulatory mechanisms put in place to temporarily halt trading on an exchange to curb panic-selling.

- **Measures Taken by RBI:**

  - The RBI monitors the performance of private banks and large **Non-Banking Financial Companies** (NBFCs).

  - On LVB, it has **imposed a moratorium whose cash withdrawal limit** has been capped at **Rs. 25,000.**

  - It has also put in place a **draft scheme for its amalgamation with DBS Bank India.**

    - The combined balance sheet of DBS India and LVB would remain healthy after the proposed amalgamation, with **Capital to Risk Weighted Assets Ratio** (CRAR) at 12.51% and **Common Equity Tier-1** (CET-1) capital at 9.61%, without taking into account the infusion of additional capital.

      - **CET-1 capital** includes equity instruments where returns are linked to the banks' performance and therefore the performance of the share price. They have no maturity.

    - In September 2019, merger of banks, **consolidation of 10 public sector banks into four mega state-owned ones**, was announced ostensibly to help in better

management of capital.

- One **safety net for small depositors** is the **Deposit Insurance and Credit Guarantee Corporation** (DICGC), an RBI subsidiary, which gives **insurance cover on up to Rs. 5 lakh deposits** in banks.

- RBI may ask for **capital infusion by other banks and financial institutions, putting in equity capital** in the reconstructed entity.

  - Budget 2019 had announced a **Rs. 70,000 crore bank recapitalisation** programme to help Public Sector Banks shore up their capital reserves and enhance credit flow into the economy.

Road Ahead

- These bank crises are not exactly new or unique and their problems with mounting bad loans reflect the underlying woes in the financial sector ranging from real estate to power and non-banking financial companies.

- In September 2020, an **expert committee headed by K V Kamath** came out with **recommendations on the financial parameters** required for a one-time loan restructuring window for corporate borrowers under stress due to the pandemic which would help to deal with the time-specific concerns.

- The crisis provides an opportunity for the various stakeholders to review their existing frameworks and revise them accordingly suiting to timely needs.

1.8 Meghalaya Integrated Transport Project (MITP)

- The Government of India, the Government of Meghalaya and the World Bank has signed a $120-million project to improve and modernize the transport sector of Meghalaya.

- This will help Meghalaya to harness its vast growth potential for high-

value agriculture and tourism.

- The $120 million loans from the International Bank for Reconstruction and Development (IBRD), has a maturity of 14 years including a grace period of six years.

- The International Bank of Reconstruction and Development (IBRD) is a development bank administered by the World Bank.

- The Meghalaya Integrated Transport Project (MITP) will improve about 300 km of strategic road segments and stand-alone bridges by using innovative, climate-resilient, and nature-based solutions.

- The segments will serve major agriculture areas, important tourist destinations, small-scale industries, major towns and underserved populations by linking them to markets, health and education centres, and national and international corridors.

- It will also support innovative solutions such as precast bridges to reduce both time and cost of construction.

- This operation will also support the state's government "Restart Meghalaya Mission" to revive and boost development activities affected due to COVID-19 pandemic.

- It will help restore transport services for the movement of agricultural produce, improve access to health facilities during COVID-19 type medical emergencies, benefit about 500,000 inhabitants, and generate direct employment of about 8 million person-days.

1.9 Micro Irrigation Fund

- Micro Irrigation Fund with a corpus of Rs. 5000 crore created with NABARD was operationalised in 2019-20.

- The objective of the Fund is to facilitate the States in availing an interest subvented loan for expanding coverage of Micro Irrigation by taking up special and innovative projects and also for incentivising micro irrigation beyond the provisions available under PMKSY-Per Drop More Crop to

encourage farmers to install micro irrigation systems.

- Steering Committee of MIF has approved projects for loan of Rs. 3971.31 crore comprising Rs. 764.13 crore for Gujarat, Rs. 1357.93 crore for Tamil Nadu, Rs. 616.13 crore for Andhra Pradesh, Rs. 276.55 crore for West Bengal, Rs.790.94 crore for Haryana Rs. 150.00 crore for Punjab and Rs. 15.63 crore for Uttarakhand.

- NABARD released loan of Rs 659.70 crore to Haryana, Tamil Nadu and Gujarat. Thereby a total amount of Rs. 1754.60 crore has been released so far, comprising Rs. 616.13 crore to Andhra Pradesh, Rs. 937.47 crore to Tamil Nadu, Rs. 21.57 crore to Haryana and Rs. 179.43 crore to Gujarat.

1.10 Creation and Expansion of Food Processing and Preservation Capacities- CEFPPC

- The Central government has approved 28 Food Processing Projects worth over 320 crore rupees, said the Ministry of Food Processing Industries.

- The projects are spread over 10 states and are likely to generate employment for nearly 10,000 people.

- The Ministry of Food Processing Industries has supported the projects with a grant of over 107 crore rupees.

- They were approved under the Scheme for Creation and Expansion of Food Processing and Preservation Capacities- CEFPPC in the Inter-Ministerial Approval Committee (IMAC) meeting.

- Union Minister of Food Processing Industries Narendra Singh Tomar chaired the IMAC meeting through video conference to review the projects under Pradhan Mantri Kisan Sampada Yojana (PMKSY) for necessary Grants-in-aid. Junior minister Rameswar Teli was also present in the meeting.

- These 28 projects will create a processing capacity of 1,237 Metric Tonnes every day across the states of Madhya Pradesh, Gujarat, Uttar Pradesh, Maharashtra, Jammu and Kashmir, Karnataka, Tamil Nadu, Uttarakhand, Assam, and Manipur.

1.11 Negative-yield debt

- Last week, China sold negative-yield debt for the first time, and this saw a high demand from investors across Europe.

- As yields in Europe are even lower, there was a huge demand for the 4-billion-euro bonds issued by China.

- China's 5-year bond was priced with a yield of –0.152%, and the 10-year and 15-year securities with positive yields of 0.318% and 0.664%.

- These are debt instruments that offer to pay the investor a maturity amount lower than the purchase price of the bond.

- These are generally issued by central banks or governments, and investors pay interest to the borrower to keep their money with them.

- Negative-yield bonds attract investments during times of stress and uncertainty as investors look to protect their capital from significant erosion.

- At a time when the world is battling the Covid-19 pandemic and interest rates in developed markets across Europe are much lower, investors are looking for relatively better-yielding debt instruments to safeguard their interests.

- The fact that the 10-year and 15-year bonds are offering positive returns is a big attraction at a time when interest rates in Europe have dropped significantly.

- As against minus —0.15% yield on the 5-year bond issued by China, the yields offered in safe European bonds are much lower, between –0.5% and —0.75%.

- Also, it is important to note that while the majority of the large economies are facing a contraction in their GDP for 2020-21, China is one country that is set to witness positive growth in these challenging times: its GDP expanded by 4.9% in the third quarter of 2020.

1.12 Creation of Infrastructure for Agro-Processing Cluster

The government has approved seven proposals of Food Processing Projects worth over 234 crore rupees under the Scheme for Creation of Infrastructure for Agro-Processing Cluster.

- The scheme for Creation of Infrastructure for Agro-Processing Cluster was approved in 2017 under the Pradhan Mantri Kisan Sampada Yojana to incentivize the setting up of agro processing clusters in the country.

- This scheme aims at development of modern infrastructure to encourage entrepreneurs to set up food processing units based on cluster approach.

1.13 Lakshmi Vilas Bank (LVB) merger with DBS Bank India Ltd (DBIL)

- The government approved merger of crisis-ridden Lakshmi Vilas Bank (LVB) with DBS Bank India Ltd (DBIL) and removed restrictions on withdrawal of deposits by depositors.

- The Union Cabinet has approved the merger of the LVB with DBS Bank India Limited, Union Minister Prakash Javadekar told reporters, adding the decision will provide comfort to 20 lakh depositors and protect the services of 4,000 employees.

- "Cabinet approves Scheme of Amalgamation of Lakshmi Vilas Bank with DBS Bank India Limited; with these there will no further restrictions on the depositors regarding withdrawal of their deposits," the official spokesperson said in a tweet.

- The minister said that those responsible for deteriorating financial health of the LVB would be penalised.

- The government had earlier on November 17 on the advice of the RBI

imposed a 30-day moratorium on the crisis-ridden LVB restricting cash withdrawal at Rs 25,000 per depositor.

- The RBI simultaneously placed in public domain a draft scheme of amalgamation of LVB with DBIL, a banking company incorporated in India under Companies Act, 2013, and having its Registered Office at New Delhi.

- The Reserve Bank had also superseded the board of the LVB and appointed T N Manoharan, former non-executive chairman of Canara Bank, as administrator of the bank for 30 days.

- LVB is the second private sector bank after Yes Bank which has run into rough weather during this year.

- In March, capital-starved Yes Bank was placed under a moratorium.

- The government rescued Yes Bank by asking state-run State Bank of India to infuse Rs 7,250 crore and take 45 per cent stake in the bank.

1.14 FDI in Telecom

The Cabinet Committee on Economic Affairs approved the FDI proposal for acquisition of 12.32 per cent of equity share capital, on a fully diluted basis, of ATC Telecom Infrastructure Pvt Ltd by ATC Asia Pacific PTE Ltd.

- The acquisition is being done as a result of exercise of option by Tata Tele Services Ltd (TTSL) and Tata Sons Pvt Ltd (TSPL).

- This share purchase would lead to foreign direct investment inflow of ₹2,480.92 crore, a government statement said.

- With this approval, the cumulative FDI of ATC Asia Pacific PTE Ltd (ATC Singapore) into ATC Telecom Infrastructure Pvt Ltd (ATC India) will be ₹5,417.2 crore in financial years 2018-19 to 2020-21.

- ATC Telecom Infrastructure Pvt Ltd is engaged in the business of providing passive telecom infrastructure services to telecom operators, pursuant to various approvals granted to it by Department of Telecommunications.

- The company has existing FDI approval up to 86.36 per cent and with this approval, it will rise to 98.68 per cent, on a fully diluted basis.

- The inflow of foreign investment to India will spur economic growth; as well as foster innovation, the government release said.

1.15NIIF- National Investment and Infrastructure Fund

- The Union approved an equity infusion by the government of Rs. 6,000 crores in NIIF- National Investment and Infrastructure Fund over the course of two years.

- The Union Minister of Information and Broadcasting, Prakash Javadekar during a media briefing informed that the cabinet has taken a significant decision of capital infusion in NIIF.

- The Union Minister also informed that under NIIF, two firms, NIIF Infrastructure Finance Limited (NIIF-FL) and Aseem Infrastructure Finance Limited- AIFL will be responsible for mobilizing the funds.

- The Aseem Infrastructure Finance Limited will be financing under construction brown field and green field projects with less than a year of operations.

- AIFL is AA rated company while NIIF-FL is AAA-rated.

- The NIIF debt platform will be putting in Rs. 7,000 crores equity while through global bond bank markets Rs. 1 lakh crore will be mobilized to make Rs. 1.1 lakh crore available for the infrastructure projects in the first tranche.

- The central government whose investment will go into the strategic opportunities fund of NIIF has allocated Rs. 2,000 crores for the current fiscal.

- However, as per the statement, in view of the unprecedented financial situation as well as the availability of limited fiscal space because of the pandemic, the proposed amount can be distributed only if there are demand and readiness for debt raising.

1.16 Unique Document Identification Number (UDIN)

- Finance Ministry has said, CBDT will validate Unique Document Identification Number (UDIN) generated from ICAI portal at the time of upload of Tax Audit Reports.

- Institute of Chartered Accountants of India, in its gazette notification dated 2nd August, 2019, had made generation of UDIN from ICAI website www.icai.org mandatory for every kind of certificate/tax audit report and other attests made by their members as required by various regulators.

- This was introduced to curb fake certifications by non-CAs misrepresenting themselves as Chartered Accountants.

- In line with the ongoing initiatives of the Income Tax Department for integrating with other Government agencies and bodies, Income-tax e-filing portal has completed its integration with ICAI portal for validation of UDIN generated from ICAI portal by the Chartered Accountants for documents certified or attested by them.

- Income-tax e-filing portal had already factored mandatory quoting of UDIN with effect from 27th April this year for documents certified and attested by a Chartered Accountant.

- With this system level integration, UDIN provided for the audit reports and certificates submitted by the Chartered Accountants in the e-filing portal shall be validated online with the ICAI.

- This will help in weeding out fake or incorrect Tax Audit Reports not duly authenticated with the ICAI.

INDIA AND WORLD

2.1 Gilgit-Baltistan – Provinicial Status

India has slammed Pakistan for its attempt to accord provincial status to the "so-called

Gilgit-Baltistan", saying it is intended to camouflage the 'illegal' occupation of the region by Pakistan.

In a ruling earlier this year, the Pakistan Supreme Court allowed Islamabad to amend a 2018 administrative order to conduct general elections in the region. The Gilgit-Baltistan Order of 2018 provided for administrative changes, including authorising the Prime Minister of Pakistan to legislate on an array of subjects.

Gilgit-Baltistan –

- It is a picturesque, hilly region to the north of Pakistan-Occupied Kashmir (PoK) and east of the Pakistani province of Khyber Pakhtunkhwa.

- The British sold it, along with the rest of Jammu and Kashmir, to the Dogra ruler of Jammu, Gulab Singh, after defeating the Sikh army in 1846.

- However they retained controlled over the area through a lease extracted from the Maharaja. This lease was last renewed in 1935.

- In 1947, a British army officer of the rank of Colonel imprisoned Maharaja Hari Singh's governor in the region, and handed over the area for accession to Pakistan.

- Gilgit Baltistan (GB) is spread over 72,871 sq km, and is five-and-a-half times the size of PoK. But it is sparsely populated, with just under 20 lakh people.

- Gilgit-Baltistan is divided into three administrative divisions and 10 districts.

- Though both PoK and GB are ruled directly from Islamabad, neither is officially listed as the territory of Pakistan.

- Pakistan has just four provinces – **Punjab, Khyber Pakhtunkhwa (which now includes the Federally Administered Tribal areas or FATA), Balochistan, and Sindh**.

- PoK and GB are both "**autonomous territories**".

2.2 Indian Naval Ship 'Airavat' reaches Port Sudan under 'Mission Sagar-II'

As part of 'Mission Sagar-II', the Government of India is providing assistance to Friendly Foreign Countries to overcome natural calamities and **Covid-19 pandemic.**

- Towards the same **INS Airavat** is delivering food aid for the people of **Sudan.**

- Mission Sagar-II, follows the first **'Mission Sagar'** undertaken in 2020.

- As part of Mission Sagar-II, Indian Naval Ship Airavat will deliver food aid to **Sudan, South Sudan, Djibouti and Eritrea.**

- **Mauritius, Madagascar, Comoros and Seychelles** along with **La Réunion** are part of **Indian Ocean Commission**. **India has recently become an observer** to the Commission.

- The assistance is in line with India's role as the first responder in the **Indian Ocean region.**

- The deployment is also in consonance with the Prime Minister's vision of **Security and Growth for All in the Region (SAGAR)**

- Earlier, India had sent **Indian Naval Ship (INS) Kesari,** carrying food items and medical assistance teams, to countries in the southern Indian Ocean to deal with **Covid-19 pandemic** as part of a **"Mission Sagar"** initiative.

- **Strategic Significance of the Island Countries:**

  - The strategic importance of these island nations is highlighted by their location along key **Sea Lines of Communication (SLOCs).**

  - These islands are vital and can facilitate a navy's continuous presence along key international shipping routes, allowing a navy to patrol and secure SLOCs during peace times and an option to interdict and cut off an adversary's communications during times of conflict.

- **Other Related Initiatives:**

  - India on the **65th anniversary** of the landmark **Bandung Conference** emphasized that members of the **Non-Aligned Movement (NAM)** must work to reduce the socio-economic impact of the pandemic on the most vulnerable sections of society and promote **South-South cooperation.**

  - In the wake of the global pandemic**, the** International Solar Alliance (ISA) responded by setting up ISA CARES **(like PM-CARES in India),** an initiative dedicated to the deployment of solar energy in the healthcare sector.

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

  - The Coalition of Epidemic Preparedness for Innovation (CEPI), a global initiative, has named **Translational Health Science and Technology Institute (THSTI), Faridabad** as one of the six laboratories for assessing **Covid-19** vaccine candidates that are under development

  - India has contributed 10 million USD to **SAARC Covid-19 Emergency Fund** and manufactured essential drugs, Covid protection and testing kits, for countries in the SAARC region

(**Eg. Operation Sanjeevani** for Maldives).

SAGAR

- Security and Growth for All in the Region (SAGAR) was launched in 2015. It is India's strategic vision for the Indian Ocean Region (IOR).

- Through SAGAR, India seeks to deepen economic and security cooperation with its maritime neighbours and assist in building their maritime security capabilities.

- Further, India seeks to safeguard its national interests and ensure Indian Ocean region to become inclusive, collaborative and respect international law.

- The key relevance of SAGAR emerges when seen in conjunction with India's other policies impacting the maritime domain like **Act East Policy**, **Project Sagarmala**, **Project Mausam**, India as 'net security provider', focus on **Blue Economy** etc.

Other Important Groupings Associated with Indian Ocean Region

- **Indian Ocean Rim Association:** The **Indian Ocean Rim Association (IORA)** was established in 1997.

  - It is aimed at strengthening regional cooperation and sustainable development within the Indian Ocean region.

- **Indian Ocean Naval Symposium:** The **'Indian Ocean Naval Symposium' (IONS)** is a voluntary initiative that seeks to increase maritime cooperation among navies of the littoral states of the Indian Ocean Region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.

- **Indian Ocean Commission:** Recently, India has been approved as an **observer of the Indian Ocean Commission**, the inter-governmental organization that coordinates maritime governance in the south-western Indian Ocean.

- **Asia Africa Growth Corridor:** The idea of **Asia Africa Growth Corridor (AAGC)** emerged in the joint declaration issued by India and Japan in 2016.

  - The AAGC is raised on four pillars of Development and Cooperation Projects, Quality Infrastructure and Institutional Connectivity, Enhancing Capacities and Skills and People-to-People partnership.

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2.3 First phase of Malabar exercise starts – All you need to know

Phase 1 of the Malabar Naval Exercise was held recently with participation of Australian navy for the first time since 2007.

- It is **a multilateral naval exercise** that includes simulated war games and combat manoeuvres. It started in 1992 as a bilateral exercise between the Indian and US navies. **Japan joined in 2015**.

- This year the exercise will be held in two phases, the first will be held off the coast near Visakhapatnam, and the second in the Arabian Sea in mid-November. Last year it was held in early September off the coast of Japan.

- This year's Malabar Exercise has been planned on a "non-contact-at sea" format keeping Covid-19 protocols in mind.

How is it different this year?

- For the first time in over a decade, **the exercise will see the participation of all four Quad countries**.

- This will be the second time Australia will participate. In 2007, there were two Malabar Exercises. The first was held off Okinawa island of Japan in the Western Pacific — the first time the exercise was held away from Indian shores — and the second in September 2007, off Visakhapatnam, with the Indian, Japanese, US, Australian and Singapore navies.

- The following year, Australia stopped participating. Japan became a regular participant only in 2015, making it a trilateral annual exercise since then.

2.4 Four phases of Indian multilateralism

C Raja Mohan has written an article emphasising the four phases of multilateralism in Indian foreign policy in the wake of recent meeting of QUAD.

- **First phase** – Changing the world was indeed a major theme of newly independent India's aspiration in the middle of the 20th century. But the gap between Delhi's ambition and impact was large. If idealism was the hallmark of India's internationalism in the 1950s, the harsh politics of the Cold War

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quickly dampened it.

- **Second phase** – In the 1970s, India embraced the radical agenda of a New International Economic Order, as the leader of the Non-Aligned Movement and the Group of 77. The results were meagre.

- **Third phase** – The third phase began with the end of the Cold War, the collapse of the Soviet Union, the emergence of the unipolar moment and the Washington Consensus in favour of globalisation. And as India's own economic model collapsed, Delhi had no option but to temper its political ambitions, put its political head down, focus on economic reform and prevent the world from intruding too much into its internal affairs. While the imperative of growth demanded a greater engagement with the West, the fear of the US activism on Kashmir and nuclear issues saw Delhi turn to Russia and China in search of a "multipolar world" that could constrain American power. The BRICS forum with Russia, China, Brazil and South Africa became emblematic of this strategy.

- **Fourth phase** – Delhi soon found that differences with the US on Kashmir and nuclear issues were easing thanks to George W Bush's policies. But Kashmir and nuclear question became part of India's deepening territorial and political disputes with China. Delhi also figured out that it was not possible for BRICS to constrain Beijing, since China was so much bigger than the other four members put together. As India's focus inevitably shifted to the construction of a "multipolar Asia", the Quad and its central role in constructing a stable balance of power in Asia became apparent. That brings us into the fourth phase in India's multilateralism that is marked by three features — the relative rise in Delhi's international standing, the breakdown of the great power consensus on economic globalisation, and the breakout of the US-China rivalry.

2.5 Chabahar-Zahedan railway Project

India is not a part of the **Chabahar-Zahedan railway** at present, but as Iran begins the second phase of the 628 km project, Tehran hopes New Delhi will help it procure equipment to run the rail line from the Chabahar port to the Afghan border.

- Iran's Port and Maritime Organisation (PMO) recently conveyed to India **a request for cranes, tracks, switches and signalling equipment, as well as locomotives** that it has had difficulty in procuring them directly due to the

U.S.-imposed sanctions. Iran has also asked to **activate a $150 million credit line** that had been offered by India during Iranian President Rouhani's visit to Delhi in 2018 to pay for the purchases.

- However, the 2016 MoU signed with the Indian Railway Construction company (IRCON) was no longer relevant as there had been no progress in talks, and Iranian construction companies have now taken over the project.

- **Sixty per cent of the tracklaying and about half of the entire project, including infrastructure and superstructure are now complete**, and officials say they are on track to complete the whole line by June 2021, which will connect the Chabahar port to the Afghan border, but through the existing rail system, to Turkmenistan and Central Asia as well.

- According to the MoUs signed in 2016, **India would be granted a 10-year lease to develop and operate two terminals and five berths**, access to the Chabahar free trade zone, and **the opportunity to build the 628 km rail line from Chabahar to Zahedan**, just across the border from Afghanistan.

- The government acted quickly to develop Chabahar port facilities, sent exports to Afghanistan in 2018, and has moved over half-a-million tonnes of cargo, including grains and food supplies, for Afghanistan again, through the port.

- However, the **rail line never took off for a number of reasons** despite a commitment from state-owned IRCON, to undertake its construction at an estimated $1.6 billion. While **contract changes by the Iranian side and delayed responses from the Indian side** were part of the problem, the main hurdle has been the **fear of American penalties**.

- Even though India was able to negotiate a sanctions waiver for the Chabahar port and rail line from the U.S., few international construction and equipment partners were willing to sign on to the project; New Delhi has also dragged its feet on the matter.

- After appeals to India, including one issued by its Foreign Minister Javad Zarif when he visited Delhi in January 2020, **Iran decided to go on its own, by beginning to lay tracks for the line connecting Chabahar to Afghanistan and Turkmenistan**.

Chabahar

- The idea of India-Iran cooperation on Chabahar port development was first

mooted in 2003 during the visit of then Iranian President Mohammad Khatami to New Delhi. Progress was however delayed because of nuclear related sanctions on Iran.

- An **MoU** was signed between **India and Iran in May 2015**. As per the MoU, India is to equip and operate **two berths in Chabahar Port** Phase-I with capital investment of USD 85.21 million and annual revenue expenditure of USD 22.95 million on a ten year lease.

- Ownership of equipment will be transferred to Iranian side on completion of 10 year period or for an extended period, based on mutual agreement.

- The Iranian side had requested for **provision of a credit of USD 150 million** in accordance with the MoU.

- As per the MoU, operation of two berths will commence within a period of maximum 18 months after the signing of the Contract.

- The two berths will be operated by the India **Ports Global Private Limited**, a Company promoted by the Jawaharlal Nehru Port Trust and **Kandla Port Trus**t – two major ports working under the **Ministry of Shipping**.

- Indian ships will get direct access to the Iranian coast; a rail line to the Afghan border town of Zaranj will allow us a route around Pakistan.

- **Zaranj-Delaram** road constructed by India in 2009 can give access to **GARLAND HIGHWAY**, setting up access to 4 major cities in Afghanistan – **HERAT, KANDAHAR, KABUL and MAZAR-E-SHARIF**.

2.6 20th Summit – Shanghai Cooperation Organization

20th Summit of SCO Council of Heads of State was held recently. The Meeting was chaired by the President of the Russian Federation Mr. Vladimir Putin. Prime Minister Shri Narendra Modi led the Indian delegation.

Prime Minister Narendra Modi reiterated India's firm belief in regional peace, security and prosperity and raising voice against terrorism, smuggling of illegal weapons, drugs and money-laundering. He mentioned that India's brave soldiers participated in about 50 UN peacekeeping missions and India's Pharma industry supplying essential medicines to more than 150 countries during the pandemic.

'Shanghai Cooperation Organization'

- The SCO was founded in June 2001, built on the **'Shanghai Five'** grouping of Russia, China, Kazakhstan, Kyrgyzstan (Kyrgyz Republic) and Tajikistan, which had come together in the post-Soviet era in 1996, in order to work on regional security, reduction of border troops, and terrorism.

- A particular goal all these years has been **"conflict resolution"**, given its early successes between China and Russia, and then within the Central Asian Republics.

- The 1996 meeting of the Shanghai Five, for example, resulted in an '**Agreement on Confidence-Building in the Military Field Along the Border Areas**' between China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan, which led to an agreement on the mutual reduction of military forces on their common borders in 1997. Subsequently, it helped push the Central Asian countries to resolve some of their boundary disputes as well.

- The 1997 meeting of the Shanghai Five, for example, resulted in "**an Agreement on Mutual Reduction of Military Forces along China's borders with Kazakhstan**" and other agreements that resolved "**disputes between Kyrgyzstan, Tajikistan and Uzbekistan on border issues and the Ferghana Valley enclaves**" have been facilitated by the grouping.

- In 2001, the Shanghai Five **inducted Uzbekistan** into the group and **named it the SCO**, outlining its principles in a charter that promoted what was called the "**Shanghai spirit**" of cooperation.

Mandate of the SCO

- According to its rules, the organisation has two permanent bodies — **the SCO Secretariat based in Beijing and the Executive Committee of the Regional Anti-Terrorist Structure (RATS) based in Tashkent**.

- The SCO Secretary-General and the Director of the Executive Committee of the SCO RATS are **appointed by the Council of Heads of State for a term of three years**.

- However, the venue of **the SCO council meetings moves between the eight members** (including India and Pakistan). The SCO also has four observer states — Afghanistan, Iran, Belarus and Mongolia — which may be inducted

at a later date.

- The SCO was eyed with **some misgivings by the U.S. and Europe** as a result of this, not the least by its desire to build a "**new international political and economic order**", and it was even dubbed the "**Anti-NATO**" for proposing military cooperation.

- In 2005, the **Astana declaration** called for SCO countries to work on a "*joint SCO response to situations that threaten peace, security and stability in the region*", indicating the group's strategic ambitions.

Main goals

The SCO describes its main goals, part of its Charter that was adopted in St. Petersburg in 2002, as –

- strengthening mutual trust and neighbourliness among the member states;

- promoting their effective cooperation in politics, trade, economy, research and technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas;

- making joint efforts to maintain and ensure peace, security and stability in the region; and moving towards the establishment of a democratic, fair and rational new international political and economic order.

Contradictions in SCO

- India and Pakistan joined the SCO as observers in 2005, and were admitted as full members in 2015. Since 2014, India and Pakistan have cut all ties, talks and trade with each other, and India has refused to attend the SAARC summit due to tensions with Pakistan, but both their leaderships have consistently attended all meetings of the SCO's three councils: the Heads of State, Heads of Government, Council of Foreign Ministers, as well as other meetings.

- Despite the fact that India accuses Pakistan of perpetrating cross-border terrorism at every other multilateral forum, at the SCO, Indian and Pakistani armed forces even take part in military and anti-terrorism exercises together, as part of the SCO-Regional Anti-Terrorist Structure.

- In addition, the two countries are part of the SCO-Afghanistan Contact Group, to discuss the course of Afghanistan's future, an issue New Delhi and

Islamabad are bitterly divided over.

2.7 Impact of US Election Results on India

Joseph Robinette Biden Jr. has defeated Donald Trump to become the **46th US President.**

- Biden's **running mate Kamala Devi Harris** has become the first woman and first Indian- and African- American **Vice President** of the country. Biden and Harris will be **sworn into office on 20th January 2021.**

- The **US** has a **Presidential System,** whereas **India** has the **Parliamentary System of Government.**

- There are **several ways** in which the **US economy,** its health and the **policy choices of its government affect India.** Both the countries recently had **2+2 dialogue.**

US Presidential System

- The US President is both the **head of the State** and **head of the Government.**

- The **law making is done by the legislature** (called the Congress in the US), but the President can veto any law.

- S/he has a **fixed tenure of four years** and completes it even if her/his party does not have a majority in the Congress.

- The President and the Vice President are **chosen by 'electors'** through a process called the Electoral College.

    - The **presidential candidate** of each of the political parties, **chooses a vice presidential running mate.** Voters vote on the two—presidential and vice presidential candidates—as a team.

- The President **can be removed** for conviction of treason, bribery, or other high crimes or misdemeanor.

Indian Parliamentary System

- There is a **President who is the formal Head of the state of India** and the **Prime Minister and the Council of Ministers,** which **run the**

government at the national level.

- The **Constitution of India vests the executive power of the Union formally in the President.** In reality, the President exercises these powers through the Council of Ministers headed by the Prime Minister.

  - The Prime Minister has the support of majority in the Lok Sabha.

- The President is **elected for a period of five years.** S/he is **elected indirectly.** This means that the President is elected not by the ordinary citizens but by the elected MLAs and MPs.

- The President can be **removed only for 'violation of the Constitution' (impeachment procedure).**

- **Economic Relations:** Under Biden administration, India's trade with the US could recover from the dip since 2017-18.

  - **Trade Surplus:** A recent analysis by experts of CARE Ratings (a credit rating agency) shows that over the past 20 years, **India has always had a trade surplus** (exports exceeding imports) **with the US.**

    - The trade surplus has widened from USD 5.2 billion in 2001-02 to USD 17.3 billion in 2019-20. Trade surplus had **peaked at USD 21.2 billion in 2017-18** and has moderated to some extent.

    - In 2019-20, India **exported** goods worth **USD 53 billion** to the US – that's roughly 17% of all Indian exports that year and **imported** goods worth USD 35.7 billion in return – that's roughly 7.5% of all Indian imports.

  - **Trade in Services:** India accounts for **nearly 5% of USA's services imports** from the World.

  - **Investment:**

    - The **US is the fifth-biggest source for Foreign Direct Investment** (FDI – investment in the physical assets inside India) **into India.** Only Mauritius, Singapore, Netherlands, and Japan have invested more FDI since 2000.

    - The US also accounts for **one-third of all Foreign**

Portfolio Investments (that is, investment in financial assets) into India.

- **H1-B Visa Issue:** How a US President looks at the H1-B visa issue, affects the prospects of Indian youth far more than the youth of any other country.

  - Under President Trump, who severely **curtailed the visa regime**, owing to his policy of **"America First",** India had suffered the most.

  - H-1B visa is a **non-immigrant visa** that allows American companies to employ foreign workers in speciality occupations that require theoretical or technical expertise.

- **US' Generalized System of Preference:** India's exclusion from the US' **Generalized System of Preference (GSP)** could come up for reconsideration under Biden.

  - In 2019, President Donald Trump had **terminated India's designation as a beneficiary developing nation under the GSP trade programme** after determining that it has not assured the US that it will provide "equitable and reasonable access" to its markets.

  - India **was the largest beneficiary of the programme in 2017** with USD 5.7 billion in imports to the US given duty-free status.

  - GSP is designed to promote economic development by allowing duty-free entry for thousands of products from designated beneficiary countries.

- **Other Issues:** Other points of contention between India and US – such as the tricky issue of **data localisation** or **capping prices of medicines and medical devices –** have a chance of getting towards a resolution.

  - Further, under the Trump administration, the **US sanctions on Iran severely limited India's sourcing of cheap crude oil.**

  - On **China**, it is more likely that **a Biden administration will help India against China,** instead of clubbing the two together.

- **Paris Climate Accord:** Biden has promised to **rejoin the Paris Climate Accord,** and this may help countries such as India in dealing with the massive challenges – both technical and financial – on this front.

- **Civil Liberties and Democratic Rights in India:**

    - Although some US Congressmen and women had raised red flags on the human rights situation following the revoking of J&K's special status under **Article 370** and passage of the **Citizenship (Amendment) Act** alongside the proposed nationwide **National Register of Citizens (NRC)**, the Trump administration had not taken any actions beyond making some perfunctory statements.

    - According to the Biden campaign's policy paper, **Biden** has been **"disappointed** by the measures that the Government of India has taken with the implementation and aftermath of the National Register of Citizens (NRC) in Assam and the passage of the Citizenship (Amendment) Act into law".

Road ahead

- India should be prepared to hold its own in tough conversations on sensitive issues. A Biden presidency may see a **renewed push towards a rules-based trading system** across the world – instead of outright ad-hocism as was the case under Trump – as well as a move away from the protectionist approach that has been getting strong across the world.

- Combined with the control of Covid infections and the economic recovery, the US could yet again provide a growth impulse to the global economy that countries such as India need to boost their exports and grow.

2.8 17th ASEAN-India Summit

Recently, India has participated in the **17th ASEAN-India Virtual Summit** on the invitation of Vietnam, the current Chair of **Association of Southeast Asian Nations** (ASEAN).

- The summit focused on **measures to recover from the economic turmoil triggered by the Covid-19 pandemic** and ways to **further broad-base strategic ties.**

- **ASEAN's Centrality with respect to:**

    - **India's Act East Policy:**

- Against the backdrop of aggressive moves by China, including the **Ladakh standoff**, India placed the ASEAN at the centre of India's **Act East policy** and held that a cohesive and responsive ASEAN is essential for security and growth for all in the region.

- **India's Indo-Pacific Vision and Security And Growth for All in the Region Vision:**

    - India underscored the importance of strengthening convergence between India's **Indo-Pacific Oceans Initiative**(IPOI) and the ASEAN Outlook on **Indo-Pacific**, to ensure a free, open, inclusive and rules-based region.

    - It also highlighted the importance of cooperation by ASEAN in for the **Security And Growth for All in the Region**(SAGAR) Vision.

- **Regional Comprehensive Economic Partnership:**

    - India would explore ways to **increase trade despite** its exit from the 15-nation **RCEP agreement** in 2019.

    - The RCEP free trade agreement is **expected to be signed on 15th November 2020** between **China, Australia, South Korea, Japan, and the ASEAN Members.**

    - However, experts have warned that **once the RCEP is adopted, trade between RCEP nations will assume primacy,**which **could affect trade ties with other countries** including India.

- **South China Sea:**

    - Affirmed the importance of maintaining and promoting peace, stability, safety and security in the **South China Sea**, and **ensuring freedom of navigation and overflight.**

    - Noted the importance of promoting a rules-based order in the region including through **upholding adherence to international law,** especially the **United Nations Convention on the Law of the Sea** (UNCLOS).

- **Regulating Covid-19 Pandemic:**

    - India welcomed ASEAN's **initiatives to fight the pandemic** and announced a **contribution of USD 1 million to Covid-19 ASEAN Response Fund.**

    - It also underlined the importance of cooperation and regular exchanges in the field of traditional medicines as a source of healthy and holistic living.

- **Trade and Investment:**

    - India underlined the **importance of diversification and resilience of supply chains** for post-Covid-19 economic recovery.

    - India called for an early review of **ASEAN-India Trade in Goods Agreement** (AITIGA), which is pending for a long time.

- **Connectivity:**

    - Underscoring the importance of greater physical and digital connectivity, India reiterated its offer of **USD 1 billion Line of Credit to support ASEAN** connectivity.

- **India's Significance Highlighted by ASEAN:**

    - Towards **promoting peace and stability in the region** and India's support to ASEAN centrality.

    - Welcomed the adoption of the new **ASEAN-India Plan of Action for 2021-2025.**

    - Acknowledged **India's capacity-building initiatives,** including the **PhD Fellowship Programme** at IITs and **setting up of Centres for Excellence** in Software Development and Training.

Association of Southeast Asian Nations

- It is a **regional grouping** that promotes economic, political, and security cooperation.

- It was established on **8th August 1967 in Bangkok, Thailand** with the signing of the **ASEAN Declaration** (Bangkok Declaration) by the **founding**

fathers of ASEAN, namely **Indonesia, Malaysia, Philippines, Singapore and Thailand.**

- **Ten Members:** Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

- **Chairmanship:** It rotates annually, based on the alphabetical order of the English names of Member States.

- ASEAN countries have a **total population of 650 million** people and a combined **Gross Domestic Product (GDP) of USD 2.8 trillion.** It is **India's 4th largest trading partner** with about USD 86.9 billion in trade.

- The group has **played a central role in Asian economic integration,** signing six free-trade agreements with other regional economies and helping spearhead negotiations for what could be the world's largest free trade pact.

Road Ahead

- A cohesive and responsive ASEAN is essential for security and growth for all in the region and cementing the connection between India and ASEAN on all fronts, including economic, social, digital, financial, maritime, is an important priority area.

- ASEAN-India Strategic Partnership stands on a strong foundation of shared geographical, historical and civilisational ties. A fruitful exchange with ASEAN leaders and a successful Summit will further strengthen this relationship.

2.9 India's stand on RCEP

The Regional Comprehensive Economic Partnership (RCEP), a mega trade bloc comprising 15 countries led by China, that came into existence said India would have to write expressing "intention" to join the organisation to restart negotiations for membership.

RCEP

- The Regional Comprehensive Economic Partnership (RCEP) is a trade deal that has been signed amongst 16 countries — the 10 member countries of the Association of Southeast Asian Nations (ASEAN), and the six countries with

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which the ASEAN bloc has free trade agreements (FTA).

- The ASEAN, which includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, has FTAs with India, Australia, China, South Korea, Japan and New Zealand.

- The purpose of RCEP was to make it **easier for products and services of each of these countries to be available across this region**. Negotiations to chart out this deal had been on since 2013, and India was expected to be a signatory until its decision last November.

What did India demand?

- India demanded that the **base year for tariff reduction should be 2019-20 and not 2014-15**. It was demanded **to protect the electronic products** which could have attracted zero tariffs. India was also demanding **an auto-trigger mechanism to curb import surges**.

- India had a bitter experience with its FTA with the ASEAN. The real beneficiary of India-ASEAN FTA was **China** which was **routing the finished products to India from ASEAN nations**. For this reason, India proposed **a strict rules of origin (ROO) clause** to stop third country imports.

- India was also **against the proposed inclusion of investor-state dispute settlement (ISDS)** in the RCEP by members like Singapore & Japan. India does not want its domestic laws to be challenged in offshore arbitral tribunals.

Strategic context

There is a strategic context to India staying out of the **Regional Comprehensive Economic Partnership (RCEP)** that **goes beyond purely economic or trade arguments and implications**. Even though India made its decision a year ago, the recent escalation of tensions with China amid the ongoing standoff at the Line of Actual Control in Ladakh appears to have played a role in shrinking the space for any argument to join the RCEP.

In November 2019, External Affairs Minister S Jaishankar had said India's stance was based on a "***clear-eyed calculation***" of the gains and costs of entering a new arrangement, and that no pact was better than a "***bad agreement***".

India's hardening stand

The hardening of India's position was evident in September 2020, when Jaishankar made a thinly-veiled reference to the RCEP: "Now, we had taken globalisation as saying we will become more competitive, you know we will keep in touch with the world. Now, fast forward 20 years, what are you actually seeing? Can you honestly tell me that, oh yes, because of this openness, because of all these FTAs today, India is more innovative, India is more competitive, Indian manufacturing is thriving, Indian exports are booming, and they're not. If they're not, there's a good reason. I agree that you cannot be a rising power without being a rising economy. To do that, you have to build your domestic capacities.

Costs and benefits

- RCEP has now been signed without India. It has been learnt that negotiators from Japan worked hard to keep the RCEP agreement "*open for accession by India*" and also said that India may participate in RCEP meetings as an "*observer*".

- Japan led the drafting of the Minister's Declaration on India's participation in RCEP. This is a reflection of the cooperation between India and like-minded countries — especially the Quad countries (Australia, the United States, Japan) — to have "***resilient supply chains***" in future.

- It is no secret that all Quad countries plus a few more — including New Zealand, South Korea and Vietnam — have been talking to each other to secure resilient supply chains, away from China. Japan and Australia, who have a difficult diplomatic relationship with China, have joined RCEP.

- **Srikanth Kondapalli**, professor of Chinese studies at Jawaharlal Nehru University said, "China is trying to overcome Covid-19 disruptions and resurrect the supply chain mechanism and possibly put pressure on [US President-elect Joe] Biden. The Indo-Pacific so far ran on twin tracks of economy and security with economy on a weak wicket. China is trying to strengthen the base while the US [is focussed on] the security aspects. For India, RCEP hardly makes a difference as it has FTAs with ASEAN, and CEPAs (Comprehensive Economic Partnership Agreements) with Japan and South Korea already."

Road ahead

- The ramifications of India's decision to opt out of RCEP will be tested. When India chose to stay out of the Belt and Road Initiative in 2017, there was much commentary that New Delhi might be isolating itself. Three years later, India's position has been recognised by like-minded democracies, and many have said that India's decision was prescient.

- Some analysts argue that "*if you don't want to be on the menu, you have to be at the table*". That's why India's seat at the table as an "**observer**" is an important development, where Delhi can make sure that it is not on the "menu".

2.10 BRICS has adopted a new counter-terrorism strategy

- The five-nation grouping BRICS has adopted a new counter-terrorism strategy to effectively deal with terrorism.

- The objective of BRICS counter-terrorism cooperation is to complement and strengthen the existing bilateral and multilateral ties among the BRICS countries, and to make a meaningful contribution to the global efforts of preventing and combating the threat of terrorism.

- BRICS is the acronym coined to associate five major emerging national economies: Brazil, Russia, India, China, and South Africa.

- The BRICS countries reaffirmed that terrorism in all its forms and manifestations constitutes one of the most serious threats to international peace and security and that any act of terrorism committed is a crime and has no justification.

- The BRICS countries also recognized that the international community should take the necessary steps to enhance cooperation to prevent and combat terrorism, including cross-border movement of terrorists.

2.11 1st INDIA-LUXEMBOURG SUMMIT

- The Prime Minister of India, Narendra Modi, and the Prime Minister of

the Grand Duchy of Luxembourg, Xavier Bettel, held the first-ever India-Luxembourg Virtual Summit.

- Both countries have friendly relation of over more than seven decades since the establishment of diplomatic relations in 1948.

- During the Summit, both parties agreed for enhanced cooperation in areas of trade, finance, steel, space, ICT, innovation, manufacturing, automotive, sustainable development, including through renewable energy, and the fight against climate change.

- Prime Minister welcomed Luxembourg's announcement to join the International Solar Alliance (ISA), and invited it to join the Coalition for Disaster Resilient Infrastructure (CDRI).

- Luxembourg is a founding member of the EU.

- In this context, the two leaders exchanged views on further strengthening India EU relations including forward movement on India EU trade agreements and investment agreements.

- The Luxembourg Prime Minister conveyed the intention of Luxembourg to join the International Solar Alliance.

- Mr Modi invited Luxembourg to join the Coalition for Disaster Resilient Infrastructure.

- The leaders looked forward to the 17th Joint Economic Commission between India and the Belgium-Luxembourg Economic Union to review the economic and trade relations.

- Three agreements were signed coinciding with the Summit. The agreements were:

    - MoU between India International Exchange (India INX) and Luxembourg Stock Exchange

    - MoU between State Bank of India and Luxembourg Stock Exchange

    - MoU between Invest India and Luxinnovation

2.12 India and Bhutan will virtually launch RuPay Card phase-2

- Prime Ministers of India and Bhutan will virtually launch RuPay Card phase-2 in Bhutan in November, 2020.

- The two Prime Ministers had jointly launched phase-1 of the project during Indian PM's visit to Bhutan in August 2019.

- The implementation of phase-1 of RuPay cards in Bhutan has enabled Indian visitors in Bhutan to access ATMs and points of sale terminals across Bhutan.

- The phase-2 will now allow Bhutanese cardholders to access RuPay network in India.

2.13 SITMEX

Indian Navy (IN) Ships including indigenously built ASW corvette Kamorta and missile corvette Karmuk participated in the 2nd edition of India, Singapore and Thailand Trilateral Maritime Exercise SITMEX-20, from in Andaman Sea.

- The first edition of SITMEX, hosted by Indian Navy, was conducted off Port Blair in September 2019.

- The SITMEX series of exercises are conducted to enhance mutual inter-operability and imbibing best practices between IN, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN).

- The 2020 edition of the exercise is being hosted by RSN.

2.14 SIMBEX -20

- Indian Navy is scheduled to host the 27th edition of India – Singapore Bilateral Maritime Exercise SIMBEX-20 in Andaman Sea.

- It will continue till 25th of this month.

- The SIMBEX series of exercises between Indian Navy and Republic of

Singapore Navy being conducted annually since 1994 , are aimed at enhancing mutual interoperability and imbibing best practices from each other.

- The scope and complexity of these exercises has increased steadily over the past two decades to include advanced naval drills covering a wide spectrum of maritime operations.

- The 2020 edition of SIMBEX will witness participation by Indian Navy ships including destroyer Rana with integral Chetak helicopter and indigenously built corvettes Kamorta and Karmuk.

- According to Ministry of Defence, the exercise, being conducted as a 'non-contact, at sea only' exercise in view of COVID-19 pandemic, highlights the high degree of mutual trust and confidence, synergy and cooperation in the maritime domain between the two friendly navies and maritime neighbours

- SIMBEX-20 will witness the two friendly navies participate in advanced surface, anti-air warfare and anti-submarine warfare exercises including weapon firings, over three days of intensive joint operations at sea.

- SIMBEX series of exercises exemplify the high level of coordination and convergence of views between India and Singapore, particularly in the maritime domain, towards enhancing the overall maritime security in the region and highlight their commitment to a rules-based international order.

2.15 India – Afghanistan – Relations

India announced a new phase of over 100 high-impact community projects in Afghanistan worth US $ 80 million (Rs 592 crore) as the country''s development portfolio in the war-ravaged nation has reached over US $ 3 billion (Rs 22,200 crore) so far.

The announcement about the new development package was made by External Affairs Minister S. Jaishankar during his virtual address at a global conference on Afghanistan during which he also called for an immediate and comprehensive

ceasefire to stop violence in that country.

- "India's development portfolio in Afghanistan has to-date amounted to over US $ 3 billion. The minister highlighted that no part of Afghanistan today is untouched by the 400 plus projects that India has undertaken in all 34 of Afghanistan's provinces. More than 65,000 Afghan students have also studied in India," the MEA said in a release.

- In his address, Jaishankar also called for an immediate and comprehensive ceasefire to stop violence in the country, and reiterated that the peace process must be Afghan-led, Afghan-owned and Afghan-controlled.

- "The external affairs minister (EAM) announced at the conference that India had just concluded with Afghanistan an agreement for the construction of the Shatoot dam, which would provide safe drinking water to 2 million residents of Kabul city," the release said.

- India had earlier built the 202-km Phul-e-Khumri transmission line that provided electricity to Kabul city.

2.16 Indian Navy leases two Sea Guardian drones from US to enhance surveillance over IOR

Recently, **two American MQ9B Sea Guardian unarmed drones** have been inducted by the Indian Navy.

- The drones **would be on lease with India** for **one year.**

- **MQ9B Sea Guardian:**

  - It is the **maritime variant** of the **Predator MQ9 Unmanned Aerial Vehicle (UAV).**

  - It has a maximum **endurance** of **40 hours** and a maximum flying **altitude** of **40,000** feet.

  - It has a **3600 maritime surveillance radar** and an optional multimode **maritime surface search radar.**

- It can be **used in operations** such as Anti-Surface Warfare, Anti-Submarine Warfare, Humanitarian Assistance/Disaster Relief, Search and Rescue, Law Enforcement (Drug Trafficking, Illegal Immigration and Piracy), etc.

- **Procurement:**

  - The Navy has for the **first time inducted two surveillance drones** through a **lease agreement** with an American firm, using the **emergency powers granted by the Centre to the Armed forces amid the China standoff.**

    - Under the emergency power, the government has granted **emergency funds up to Rs. 500 crore** per procurement project to the three armed services to **buy ammunition and weapons** in view of the escalating border standoff with China.

  - Drones were procured under the option for leasing military platforms introduced in the **Defence Acquisition Procedure (DAP) 2020.**

- **Significance:**

  - The drones are meant for carrying out **surveillance in the Indian Ocean Region and can be deployed on the China border** if asked for and if needed.

    - Already the Navy's **P8I Poseidon aircraft** have been deployed in Ladakh.

    - The **P-8I aircraft** is a variant of the **P-8A Poseidon aircraft** that have been developed by Boeing company.

    - Boeing's P-8A Poseidon is designed for long-range Anti-Submarine warfare (ASW), Anti-Surface Warfare (ASuW), and intelligence, surveillance and reconnaissance (ISR) missions.

  - As part of its force **restructuring to offset budgetary**

constraints, the Navy is looking to induce more unmanned solutions in future.

- **Till the time the government approves buying the drones,** which has to get the **Defence Acquisition Council's nod,** leasing is a more economic and viable option.

  - **The Defence Acquisition Council** is the **highest decision-making body** in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.

INTERNATIONAL RELATIONS

3.1 China's strategic vision – Revealed

China's ruling Communist Party concluded a key annual conclave outlining new long-term targets for boosting innovation and military strength, eyeing what it called "**an important strategic period**" for fulfilling its ambitions at home and abroad.

- The four-day plenum of the Communist Party of China's (CPC) Central Committee announced three goals to be achieved by 2025, 2027 and 2035 — a 14th five-year plan (2021-2025) that emphasises **boosting domestic consumption and innovation, a national security and defence modernisation plan ahead of the People's Liberation Army (PLA) centennial in 2027, and a 'Vision 2035' longer-term economic blueprint** that calls for "big leaps" in economic strength and technological prowess.

- The communique said China's GDP would cross 100 trillion yuan (around $15 trillion) this year, and the new economic blueprint, which did not announce a specific GDP target, would broadly push for China to double its GDP and current per capita GDP of $10,000 by 2035. That would require a real GDP growth of around 3.5% annually.

- While the communique mainly focused on economic issues, it also outlined China's national security plans and a goal to establish the PLA as a modern force by 2027 to realise what it called "*the unity of a rich country and a strong Army*". It stressed the importance of informatisation and to

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"**strengthen military training and war preparation**".

3.2 Paris Agreement

The United States has formally left the Paris Climate Agreement, three years after President Donald Trump announced his intention to undo what had been seen as a key achievement of his predecessor Barack Obama.

- In December 2015, 195 countries signed an agreement to **slow the process of global warming** by making efforts to "*hold the increase in the global average temperature to well below 2 degrees above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels*".

- This basically means that **the countries would try to limit the increase in global temperature rise**. While poor countries and island states had requested a lower goal considering threats of droughts and sea-level rise, climate experts have said **maintaining a 2 degrees increase will be a challenge in itself**. The agreement came into force on November 4, 2016.

- Another crucial point in this agreement was the **decision to limit the amount of greenhouse gases emitted by human activities** to a level that can be naturally absorbed by trees, soils and oceans. Nations have pledged "*to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century*". Climate experts have said that this meant attaining "net zero emissions" between 2050 and 2100. According to the UN's climate science panel, net zero emissions must be attained by 2070 to avoid dangerous warming.

What were the conflicting points?

- Developed countries were also told to **provide financial resources to help developing countries** in dealing with climate change and for adaptation measures. As part of a review mechanism, developed countries were also asked to **communicate every two years the "indicative" amount of money they would be able to raise over the next two years**, and information on how much of it would come from public financial sources. In contrast, **developing countries have only been "encouraged" to provide such information every two years on a voluntary basis**.

- A key feature of the Paris Agreement has been the way the agreement reflects the principle of '**common but differentiated responsibilities**' (CBDR), which

has been invoked four times in the CBDR principle. **Emerging nations** stressed on the developed world to **take greater responsibility for climate actions** since they are largely responsible for emitting almost all of the greenhouse gases from about 1850 to the 1980s.

- The agreement also includes **a mechanism to address financial losses faced by less developed nations due to climate change** impacts like droughts, floods etc. However, developed nations won't face financial claims since it "does not involve or provide a basis for any liability or compensation".

Why did the US leave the Paris agreement?

- During his 2016 presidential campaign, **Donald Trump had described the Paris Agreement as "unfair" to US interests**, and had promised to pull out of the agreement if elected.

- So in June 2017, months after his inauguration, Trump announced his government's decision to quit the accord. Environmentalists fiercely criticised the move, saying that America's exit would seriously jeopardise the agreement's objective of keeping the global temperature rise to within 2 degrees Celsius from pre-industrial times, especially since the US was (and still is) the world's second-largest emitter of greenhouse gases.

- The US could not immediately exit the Paris Agreement, however, as United Nations rules permitted a country to apply for leaving three years after the accord came into force, i.e. November 4, 2019. The US formally applied to leave on that day, and the departure automatically came into effect on November 4, 2020, at the end of a mandatory year-long waiting period.

3.3 Sculpture celebrating Mary Wollstonecraft draws criticism: Who was the 'mother of feminism'?

After a decade-long campaign, Mary Wollstonecraft, the 18th century British feminist writer and philosopher often regarded as the 'mother of feminism' was honoured with a memorial statue at Newington Green in north London, where she spent a considerable part of her life.

- Mary Wollstonecraft is best known as the writer of the pathbreaking '*A Vindication of the Rights of Women*' (1792), an early treatise on gender equality. But in her brief, unconventional life, Wollstonecraft's road to acclaim

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was far from smooth.

- Born in April 1759 in a prosperous household, Wollstonecraft was the second of seven children. As a child, the first place Wollstonecraft would face discrimination was at home — while her older brother received extensive formal education, her sisters and she were only afforded day schools for a few years. Nonetheless, she continued to read and write on her own, spurred by her curiosity and the necessity of economic independence, following the slump in her family's fortunes.

Impact of French Revolution

The egalitarian principles of the French Revolution, which began in May 1789, found favour with Wollstonecraft. When British politician Edmund Burke wrote a critique of the revolution in his 'Reflections on the Revolution in France' (1790), Wollstonecraft was quick to come to the revolution's defence with her 'A Vindication of the Rights of Men' (1790), in which she argued that tradition alone cannot guarantee rights; it has to be based on notions of rationality and equality. Paine would join this parley, which came to be known as the Revolution Controversy, with his 'The Rights of Man' (1791), in which he backed Wollstonecraft's contentions.

3.4 Armenia Azerbaijan Peace Deal

Recently, **Russia has brokered a new peace deal between Armenia and Azerbaijan**. Both counties have been in a **military conflict** over the **disputed region of Nagorno-Karabakh** in the South Caucasus.

- **Nagorno-Karabakh Region**
    - The region extends across **western Asia and Eastern Europe.**
    - It has been **part of Azerbaijan territory** since the Soviet era and is being internationally recognised so but most of the region is **controlled by Armenian separatists** who have declared it a republic called the **"Nagorno-Karabakh Autonomous Oblast".**
        - While the **Armenian government does not recognise Nagorno-Karabakh as independent,** it **supports the region**politically and militarily.

- **Conflict and Ceasefire:**

    - When the **Soviet Union began to collapse** (with the end of the **Cold War**) in the late 1980s, **Armenia's regional parliament voted for the region's transfer to Armenia** but the **Soviet authorities turned down** the demand.

    - Clashes and the violence lasted till **1994,** when **Russia brokered a ceasefire,** by which time ethnic Armenians had taken control of the region.

    - In **2016,** the region saw a **Four-Day War** before Russia mediated peace.

    - The **Organisation for Security and Co-operation in Europe** (OSCE) **Minsk Group,** chaired by France, Russia and the USA, has also tried to get the two countries to reach a peace agreement for several years.

        - **OSCE** is the **world's largest security-oriented intergovernmental organisation.** Its mandate includes issues such as arms control, promotion of human rights, freedom of the press, and fair elections.

        - **OSCE Minsk Group** was created in **1992** by the **Conference on Security and Cooperation in Europe** (CSCE) to encourage a peaceful, negotiated resolution to the conflict between Azerbaijan and Armenia over Nagorno-Karabakh.

    - In **October 2020,** both countries **agreed to a Russia brokered ceasefire** agreement, however, it also proved to be **unsuccessful.**

- **Reason for the Conflict:**

    - Decades-old **Ethnic tensions** have a crucial role in the dispute. While the **Azeris claim** that the disputed **region was under their control in known history, Armenians maintain** that Karabakh was a **part of the Armenian kingdom.**

    - Currently, the disputed region consists of a **majority Armenian Christian population,** even though it is **internationally recognised as a part of Muslim-majority Azerbaijan.**

- **New Peace Deal:**

  - Both sides will now maintain positions in the areas that they currently hold, which will mean a **significant gain for Azerbaijan** as it has **reclaimed over 15-20% of its lost territory** during the recent conflict.

  - All **military operations are suspended** and **Russian peacekeepers will be deployed for a period of five years,** along the line of contact in Nagorno-Karabakh and along the **Lachin corridor** which links the Karabakh capital, Stepanakert, to Armenia.

  - **Refugees and internally displaced persons will return** to the region and the adjacent territories and the two sides will also **exchange prisoners** of wars and bodies.

  - A **new corridor will be opened** from Nakhchivan to Azerbaijan, which will be **under Russian control.**

  - **Reactions: Armenian people are against** the deal and have protested while **Azerbaijan is pleased** with the deal and considered it of "historic importance".

- **Russia's Role:**

  - Russia has always taken a **balanced position** on the matter and has traditionally **good relations with both countries.** It **supplies arms to both** countries.

  - Russia has a **military base in Armenia** and both are **members** of the **Moscow-led Collective Security Treaty Organisation.**

    - The treaty envisages Russia's military support if Armenia is attacked. However, it does not include Nagorno-Karabakh or the other Azerbaijani regions around it seized by Armenian forces.

  - At the same time, **Russia also has strong ties to Azerbaijan,** which is being **openly backed by Turkey, a North Atlantic Treaty Organisation** (NATO) member.

3.5 Tristan da Cunha – UK Territory

Recently, the isolated UK Overseas Territory of Tristan da Cunha, which is home to the world's most remote human settlement, declared the **largest fully protected marine reserves in the Atlantic Ocean at 687,000 square kilometres**. This will close over 90 percent of their waters to harmful activities such as bottom-trawling fishing, sand extraction and deep-sea mining.

- Tristan da Cunha, which is inhabited by less than 300 humans is **a small chain of islands over 6,000 miles from London in the South Atlantic** and the water around the islands are considered to be the richest in the world.

- The mountainous archipelago Tristan da Cunha is home to tens of millions of seabirds and several unique land birds that are comparable to the Galapagos island finches, as per the Royal Society for the Protection of Birds (RSPB), which has been working with the local community and government of Tristan da Cunha.

Challenges

- Some of its seabirds that are not found anywhere else in the world face threats including illegal and unregulated fishing activities, overfishing, plastic pollution and climate change. The National Geographic reported that invasive mice brought to the islands by passing ships kill over 2 million birds a year.

- As of now, there are two critically endangered species in the island group and over five endangered species.

- The island group is also home to the World Heritage Site of Gough and Inaccessible Islands, which is one of the most important seabird islands in the world.

- It is located about 2,000 km from the nearest land and as per the RSPB, it takes longer to sail to Tristan da Cunha from Cape Town than it took Apollo 11 to reach the Moon.

What does the announcement mean for the island group?

- After joining the UK's Blue Belt Programme, it will become **the largest no-take zone in the Atlantic and the fourth largest on the planet.** This means fishing, mining and any such activities will not be allowed.

- The almost **700,000 square kilometres of the Marine Protection Zone (MPZ)** is almost three times the size of the UK and will safeguard the future

of seven-gill sharks, yellow-nosed albatrosses and rockhopper penguins.

- Further, this development is also supported by the Blue Belt Programme, which provides over 27 million pounds over a period of five years for marine conservation around the UK Overseas Territories and international organisations.

- MPZs involve the management of certain natural areas for biodiversity conservation or species protection and are created by delineating zones with permitted and non-permitted areas within that zone.

- As per the National Geographic Society's Campaign for Nature Initiative, over 30 percent of the world's oceans need to be protected to allow ecosystems to provide benefits like ample fish stocks.

3.6 UAE – Golden Visa

The United Arab Emirates will extend its "**golden**" visa system — which **grants 10 year residency in the West Asian nation** — to certain **professionals, specialised degree-holders and others**.

- Foreigners in the UAE usually have renewable visas valid for only a few years tied to employment. The government in the past couple of years has made its visa policy more flexible, offering longer residencies for certain types of investors, students and professionals.

- All holders of doctorate degrees, medical doctors and also computer, electronics, programming, electrical and biotechnology engineers will be eligible.

- Also eligible are those with specialised degrees in artificial intelligence, big data and epidemiology, as well as high school students living in the UAE who rank top in the country and students from certain universities with a GPA of 3.8 or higher.

- After first announcing a long-term visa plan in 2018, the UAE in 2019 started granting 5 and 10 year renewable visas to certain foreign investors, entrepreneurs, chief executives, scientists and outstanding students.

3.7 Conflict in Ethiopia – Tigray

Ethiopia's Nobel Prize winning Prime Minister Abiy Ahmed started **a military operation in the rebellious Tigray region** earlier this month. Mr. Abiy has said it would be **a limited campaign focusing on the Tigray People's Liberation Front (TPLF)**, the militia-cum-political party that runs the northern region. However, almost two weeks into the conflict, Ethiopia risks falling into an ethnic civil war with regional implications.

- The TPLF was founded in 1975 as **a resistance army of the Tigrayan people against the military dictatorship, which was called the Derg**. The leftist Derg, which was established in 1974, would change its title in 1987 but practically remained in power till it was ousted by the armed rebels in 1991.

- The TPLF played a crucial role in ousting the junta and they were welcomed as national heroes in 1991. TPLF leader Meles Zenawi took over as the interim President in 1991 and became the first elected Prime Minister in 1995. He is largely seen as the architect of the country's ethno-federal system and remained in power till 2012.

- But over the years, the government led by the Ethiopian People's Revolutionary Democratic Front (EPRDF), a coalition put together by Mr. Zenawi, was accused of being increasingly authoritarian and there were frequent mass protests in the regions.

- Though the EPRDF contains regional political parties such as the Amhara Democratic Party, the Oromo Democratic Party and the Southern Ethiopian People's Democratic Movement, the TPLF remained the dominant political force. In 2018, the EPRDF chose Mr. Abiy, a former military intelligence officer, to lead the government amid growing protests and a political deadlock.

Rise of Abiy

- Though the EPRDF provided a stable rule with high economic growth for 17 years, there was mounting criticism against the country's ethnofederal arrangement. The Tigray people make up roughly 6% of the population, while the Oromos have a 34% share and the Amharas 27%. While the TPLF controlled the levers of power through the EPRDF, the Oromos alleged marginalisation.

- As Prime Minister, Mr. Abiy took a host of steps to cut the outsized influence

of the TPLF in the government. He purged TPLF functionaries from key government posts, released political prisoners (jailed by the TPLF led government) and promised freer media. He reached out to Eritrea, a sworn enemy of the TPLF, which shares a long border with the Tigray region.

- Mr. Abiy, the country's first Oromo leader, claimed that his actions are not driven by ethnic calculations but rather aimed at addressing the historic power imbalance in the country and making peace with the neighbours. But the TPLF saw his moves as hostile.

War begins

- The tensions were building up for a while. When Mr. Abiy formed a new political coalition, the **Prosperity Party**, all constituents of the EPRDF, except the TPLF, joined the new platform. The TPLF saw the formation of a new party as **an attempt by Mr. Abiy to consolidate more power in hands**. The party's leadership shifted from Addis Ababa to Mekele, the Tigray regional capital.

- In August, when Mr. Abiy's government decided to postpone parliamentary elections, citing COVID-19, the TPLF openly challenged the decision. They accused the Prime Minister of power grab and went ahead holding elections in the region in defiance of the federal government.

- Then on November 3, TPLF militants attacked a federal military command in the Tigray region and captured military hardware and equipment, prompting Mr. Abiy to declare the military operation.

Geopolitical angle

- Mr. Abiy's outreach to Eritrea had outraged the TPLF, which had fought a prolonged war with the Eritrean government along the Tigray border. The TPLF now accuses Eritrea of backing Mr. Abiy's offensive. Recently, the rebels fired rockets into Eritrea from Tigray, threatening a wider regional war in the Horn of Africa. Tigray rebels also fired rockets into the neighbouring Amhara region.

- Even if Mr. Abiy is serious about keeping the operation short, it could spill out of control, given the underlying complexities of the conflict. The TPLF's old guard cut their teeth in the resistance against the Derg and they have thousands of fighters under their command. Also, the Tigray region shares a border with

Sudan. The TPLF enjoyed good relations with Sudan's ousted dictator Omar Bashir.

- Sudan has a border dispute with Ethiopia. If Sudan's new rulers (the transition government includes civilian and military leaders) keep the old links with the TPLF active and the border open for the rebels, the conflict could go on. If it does, it could derail Mr. Abiy's reform agenda at home as well as the diplomatic agenda abroad.

3.8 Japan – Australia – Reciprocal Access Agreement (RAA)

- Japan and Australia have signed a landmark defence deal in a bid to counter China's growing influence in the South China Sea and over the Pacific island nations.

- The Reciprocal Access Agreement (RAA) comes weeks after foreign ministers of the Quad alliance, which includes the US and India, met in Tokyo.

- The pact allows Japanese and Australian troops to visit each other's countries and conduct training and joint operations.

- Australian Prime Minister said that the treaty will strengthen their security ties and facilitate cooperation between defence forces.

- The two sides also agreed on the need for a framework to allow Japanese military to protect Australian forces if needed.

3.9 Booker Prize – Scottish writer Douglas Stuart

Scottish writer Douglas Stuart has won the 2020 Booker Prize for fiction with his debut novel Shuggie Bain, which described a boy growing up in Glasgow in the 1980s with a mother battling addiction.

- The awards ceremony saw six shortlisted authors joining virtually and included messages from former US President Barack Obama, the Duchess of Cornwall and former Booker winners Kazuo Ishiguro,

Margaret Atwood and Bernardine Evaristo.

- Stuart, 44, who won the 50,000 Pound prize after being announced the winner by chair of the judges Margaret Busby, delivered an acceptance speech.

- Based on his own childhood, Stuart's book is described as a searing account of the boy growing up in Thatcher's Glasgow.

- He dedicated the book to his own mother, who died of alcoholism when he was 16.

- The Booker Prize shortlist also included Indian-origin writer Avni Doshi's novel 'Burnt Sugar'.

- First awarded in 1969, The Booker Prize is considered one of the leading prizes for literary fiction written in English.

- The list of former winners features several of the literary giants of the last five decades: from Iris Murdoch to Salman Rushdie, Kazuo Ishiguro to Hilary Mantel.

3.10 15th G-20 Summit

Terming the COVID-19 pandemic an important turning point in history of humanity and the biggest challenge the world is facing since World War II, Prime Minister Narendra Modi at the G20 summit called for a new global index based on talent, technology, transparency and trusteeship towards the planet in the post-corona world.

- Modi also said that "Work from Anywhere" is a new normal in the post-COVID world and suggested creation of a virtual G20 secretariat as a follow up and documentation repository.

- Saudi Arabia's King Salman opened the Group of 20 Summit as the coronavirus pandemic overshadowed this year's gathering of heads of state that is being held in the virtual format.

- Multi-skilling and re-skilling to build a talent pool will enhance dignity

and resilience of workers, he said, adding that the value of new technologies should be measured by their benefit to humanity.

- "Transparency in our processes helps in inspiring our societies to fight crisis collectively and with confidence. Spirit of trusteeship towards planet Earth will inspire us for a healthy and holistic lifestyle," he said in a series of tweets.

- The Ministry of External Affairs (MEA), in a statement on Modi's participation in the G20, said the prime minister termed the COVID-19 pandemic as an important turning point in history of humanity and the biggest challenge the world is facing since World War II.

3.11 Rodchenkov Act

- The Rodchenkov Act was passed by the Senate and will become a law once the US president signs it.

- It allows the USA to initiate legal proceedings against those involved in running doping rings, including coaches, officials, managers or suppliers even if they are not residents of the United States or if the act of doping took place outside the United States.

- The bill is named after Grigory Rodchenkov, a former director of Russia's anti-doping lab.

- Rodchenkov had moved to the USA and turned whistle-blower after the 2014 Sochi Winter Games.

- Rodchenkov's testimony and an independent report by professor Richard McLaren, which concluded that at least 1,000 Russian athletes benefitted from doping, resulted in the nation being banned from the 2018 Winter Olympics in South Korea.

- The main objective of the Rodchenkov Act is to bring to book facilitators who otherwise got away when athletes who tested positive for performance-enhancing substances were banned under the World Anti-Doping Agency (WADA) code.

- The Act seeks to criminalise 'major international dope fraud conspiracies', which is mentioned in Section 4 of the Act.

3.12 Mt.Vesuvius

- The Italian Culture Ministry announced on November 21 the discovery of well-preserved remains of two men, who perished during the volcanic eruption of Mount Vesuvius in 79 AD.

- The eruption was a catastrophic event that destroyed the ancient Roman city of Pompeii and killed around 16,000 people.

- The unearthed bodies, which appear as if frozen in time, are believed to be the remains of a man of high status aged between 30 and 40, and of an enslaved person aged 18 to 23, a *Reuters* report said.

- Archaeologists have preserved their teeth and bones, and the void left by their decomposed soft tissues has been filled by plaster using a well-perfected casting method by which it is possible to see the outline of their bodies.

- Located in southern Italy near the coastal city of Naples, the 4,203-ft (1,281 metres) tall Vesuvius is the only active volcano in mainland Europe.

- Vesuvius has been classified as a complex volcano (also called a compound volcano), one that consists of a complex of two or more vents.

- According to livescience.com, Vesuvius typically has explosive eruptions and pyroclastic flows — defined as a high-density mix of hot lava blocks, pumice, ash and volcanic gas.

- It has erupted more than 50 times, and is considered among the most dangerous volcanoes in the world due to its proximity to Naples and surrounding towns.

- Its last serious eruption, lasting two weeks, was in 1944 during World War II, which left 26 Italian civilians dead and around 12,000 displaced.

3.13 Second Management Positions Act – Germany Women

Last week, a working group of Germany's ruling coalition parties headed by Chancellor Angela Merkel agreed to impose a mandatory quota for the number of women working in senior management positions in the country's listed firms.

- Since 2015, Germany, which is Europe's biggest economy, has had a voluntary quota of 30 per cent for women on supervisory boards.

- However, various studies have indicated this did little to improve the proportion of senior executive positions held by women.

- The new provisions will build upon this already existing voluntary quota.

- A final decision on the key points of the legislation, called the Second Management Positions Act, will be made by the cabinet this week.

- As per the agreed-upon provisions, in case executive boards of listed companies have more than three members, one of them must be a woman.

- Further, companies in which the federal government has a stake will require a supervisory board quota of at least 30 per cent and minimum participation in executive boards.

3.14 Period Products

- The Scottish parliament passed a landmark legislation that has made period products such as sanitary pads and tampons free of cost to those people who need them.

- The bill is titled, "Period Products (Free Provision) (Scotland) Bill".

- Scotland is the first country to take such a step.

- The bill was passed with the aim of tackling "period poverty", which is when some people who need period products struggle to afford them.

- The objective is to end the silence and stigma that surrounds

menstruation.

- Certain circumstances make access to sanitary products difficult for women and trans people.

- These include homelessness, coercive, controlling and violent relationships and health conditions such as endometriosis.

3.15 International Cricket Council (ICC).

- New Zealand's Greg Barclay has been elected as the new independent chairman of the International Cricket Council (ICC).

- The head of the New Zealand Cricket team, NZC, Barclay beat Imran Khwaja in the second round of voting.

- Imran was interim chairman after Shashank Manohar stepped down from the post in July this year.

- In the first round of voting last week, Barclay had 10 votes to Khwaja's six, and needed 11 votes for a two-thirds majority of the 16-person ICC Board.

- That vote arrived from Cricket South Africa in a second round of voting. Barclay is the second independent chairman of the world body, after Shashank Manohar of India.

- A commercial lawyer by trade, Barclay has served as a director of NZC since 2012.

- He was a director of 2015 Men's World Cup, held in Australia and New Zealand.

- He is also an experienced company director holding board positions with various New Zealand and Australian companies.

3.16 USA – President's Powers to Pardon

Recently, the **President of the United States of America (USA)** has exercised his **powers** under the constitution to **pardon** his former National Security Advisor.

- Unlike the **USA President,** whose powers to grant pardons are **almost unrestrained,** the **President of India** has to act on the **advice of the Cabinet.**

- **Pardoning Power of the President in the USA:**

    - The **President** of the USA has the **constitutional right to pardon or commute** sentences related to **federal crimes.**

        - **Clemency is a broad executive power,** and is **discretionary** which means the **President** is **not answerable** for his pardons, and does not have to provide a reason for issuing one. But there are few limitations.

        - The USA has a **Presidential system.**

    - **The USA Supreme Court** has held that this **power** is granted **without limit** and cannot be restricted by **Congress** (legislature).

    - **Limitations:**

        - All Presidents shall have power to grant Reprieves and Pardons for offenses against the United States, **except in cases of impeachment.**

        - Further, the power **only applies to federal crimes and not state crimes.**

        - Those pardoned by the President can **still be tried under the laws of individual states.**

- **Pardoning Power of the President in India:**

    - Under **Article 72 of the Constitution**, the **President** shall have

the power to grant **pardons, reprieves, respites or remissions** of punishment or to **suspend, remit or commute** the sentence of any person convicted of any offence where the **sentence is a sentence of death.**

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

- **Procedure:**
  - Rashtrapati Bhawan **forwards the mercy plea to the Home Ministry,** seeking the **Cabinet's advice.**
  - The Ministry in turn **forwards this to the concerned state government;** based on the reply, it formulates its advice on behalf of the Council of Ministers.

- **Reconsideration:**
  - Although the President is bound by the Cabinet's advice, **Article74 (1)** empowers him to return it for reconsideration once. If the Council of Ministers decides against any change, the **President has no option but to accept it.**

- **Under Article 161, the Governor** in India too has pardoning powers.

- **Difference Between Pardoning Powers of President and Governor:**
  - The scope of the pardoning power of

the **President** under **Article 72** is wider than the pardoning power of the **Governor under Article 161** which differs in the following two ways:

- **Court Martial:** The power of the **President** to grant pardon extends in cases where the punishment or sentence is by a **Court Martial** but **Article 161 does not provide** any such power to the **Governor.**

- **Death sentence:** The **President** can grant pardon in **all cases** where the sentence given is the sentence of death but the pardoning power of the **Governor** does not extend to **death sentence cases.**

NATIONAL

4.1 Projects launched by the Prime Minister @ Kevadia

The Prime Minister Shri Narendra Modi inaugurated various projects under Integrated Development of Kevadia in Gujarat.

Projects launched

- **Arogya Van & Arogya Kutir** – Arogya Van has 5 lakh plants of 380 different species spread over an area of 17 acre. Arogya Kutir has a traditional treatment facility named Santhigiri wellness centre which will provide healthcare based on Ayurveda, Siddha, Yoga and Panchakarma.

- **Ekta Mall** – The Mall displays a diverse range of handicrafts and traditional items from all over India symbolising unity in diversity and is spread over 35000 sq ft. The mall consists of 20 Emporia each representing a specific state in India and is built in just 110 days.

- **Children Nutrition Park and Mirror Maze** – It is the world's first ever technology driven nutrition park for children and is spread over an area of 35000 sq ft. A Nutri Train runs across the park to various exciting theme based stations namely 'Phalshaka Griham', 'Payonagari', 'Annapoorna', 'Poshan Puran', and 'Swastha Bharatam'. It will raise nutritional awareness through

various edutainment activities like Mirror Maze, 5D Virtual reality theatre and Augmented reality games.

- **Ekta Cruise Service** – Through the Ekta Cruise Service one can experience the viewing of Statue of Unity through the Ferry Boat Service from Shrestha Bharat Bhavan to Statue of Unity by covering a distance of 6 km. The 40 min ride can be covered by a boat which can ferry 200 passengers at a time. New Gora Bridge is built especially for the operation of the ferry service. Boating Channel is constructed to provide boating services to tourists visiting the Statue of Unity.

4.2 National Medical Commission – Notified

The National Medical Commission (NMC) has notified its first major regulation. Titled as "**Minimum Requirements For Annual MBBS Admissions Regulations (2020)**", the notification replaces the "**Minimum Standard Requirements for Medical Colleges, 1999 of the erstwhile Medical Council of India (MCI)**".

- The new Regulation has **deleted the quantum of land required for setting up a medical college and its affiliated teaching hospitals** (all buildings are expected to conform to existing building bye-laws). The notification defines the **minimum requirements of space for all student centric areas** in the institution and the functional areas required.

- Under the new Regulation, **a well-equipped "Skills Laboratory" for training students is essential now**.

- It also **defines a Medical Education Unit** for training medical teachers in educational pedagogy. **Student counselling services** has been **mandated** recognising the increasing stress observed amongst medical students and residents in recent times.

- The human resource of teaching faculty has also been rationalised in the new Regulation. Over and above the minimum prescribed faculty, provision for "visiting faculty" has been made to enhance quality of training.

- Two new teaching departments have now become mandatory in all medical college hospitals for the training of undergraduate medical students. These include the **Department of Emergency Medicine** (which has replaced the earlier Casualty Department) and will ensure access and prompt, appropriate

response to emergencies particularly trauma; and the **Department of Physical Medicine and Rehabilitation** which shall fill a large gap for those in need of comprehensive rehabilitative care.

National Medical Commission

It is **responsible for the medical accreditation** of all medical education institutions within the country as well as **maintaining a national registrar of all certified allopathic medical practitioners** within the country.

Key functions of NMC –

- The key functions of the NMC will be further **streamlining regulations, rating of institutions, HR assessment, focus on research**.

- Besides they will work on modalities of the common final year exam after MBBS (NEXT- National Exit Test) to serve for both registration and PG entrance; prepare guidelines for fee regulation by private medical colleges; and developing standards for Community Health Providers to serve in primary healthcare with limited practicing licence.

- It may be recalled that the **National Medical Commission Act, 2019** was passed by the Parliament in August, 2019.

4.3 Strategic Policy and Facilitation Bureau – AYUSH

Ministry of AYUSH and M/s Invest India will form a collaboration to set up a strategic policy unit called "Strategic Policy & Facilitation Bureau (SPFB)" to facilitate planned and systematic growth of the Ayush Sector.

'Strategic Policy and Facilitation Bureau'

- It will support the Ministry in **strategic and policy making initiatives** that shall help pave the way to reach the full potential of the Sector and stimulate growth and investment.

- As a partner in the project, M/S Invest India would collaborate extensively with the Ministry to frame the work plan of the Bureau and define its short-and long-term targets.

- Invest India would deploy highly trained and expert resources to implement

and execute the plans of the Ministry of AYUSH.

- The activities to be undertaken by the SPFB would include –

- Knowledge Creation and Management,

- Strategic & Policy-Making Support,

- State Policy Bench marking: Undertaking State Policy bench marking to formulate uniform guidelines/regulations regarding AYUSH sector in India,

- Investment Facilitation: Follow up and facilitation of investment cases and MoUs, and coordination among different Department, organisations and States.

- Issue Resolution: Invest India would work with companies and other institutions on issue resolution across States and among various sub-sectors.

'Invest India'

- Set up in the year 2009, Invest India is a not-for-profit, single window facilitator, set up as a joint venture company between the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry (35% equity), Federation of Indian Chambers of Commerce and Industry (FICCI) (51% equity), and State Governments of India (0.5% each).

- As the national investment promotion and facilitation agency, Invest India focuses on sector-specific investor targeting and development of new partnerships to enable sustainable investments in India.

- In addition to a core team that focuses on sustainable investments, Invest India also partners with substantial investment promotion agencies and multilateral organisations.

- Invest India also actively works with several Indian states to build capacity as well as bring in global best practices in investment targeting, promotion and facilitation areas.

4.4 Army Aviation Corps – 35th Corps Day

The Army Aviation Corps (Army Aviation Corps), the youngest Corps of the Indian Army, celebrated its 35th Corps Day recently.

- The origin of the AAC can be traced back to the raising of the Army Aviation wing of the **Royal Air Force in India** in 1942, and the subsequent formation of the **first Indian Air Observation Post in August 1947**.

- The Air Observation Post units primarily acted as **artillery spotters – which are the elements that help the artillery in directing the fire and also giving air support to ground forces**. In the wars of 1965 and 1971, the Air Observation Post helicopters played a key role in the battlefields by flying close to the enemy lines and helping ground assets spot targets.

- The Corps was raised as a separate formation on November 1 in 1986. **The AAC now draws its officers and men from all arms of the Army**, including a significant number from the artillery.

- Immediately after raising, the units of the Corps were pressed into action in Operation Pawan by the Indian Peacekeeping Forces, in the mostly jungle areas of Sri Lanka against the Tamil Tigers. Ever since, AAC helicopters have been an inseparable part of fighting formations in all major conflict scenarios, and a life-saving asset in peace times.

Significance in modern warfare

- In the modern-day battle formation, elements like infantry, short and long artillery, armoured formations and Army helicopters are closely linked with each other. These use information and data points collected from ground and airborne surveillance assets and satellites. Helicopters are a key element of this battlefield, which is going to become even more technology-intensive in the future.

- These battle machines, which can perform both observation/recce and attack functions, are an ideal choice for CI-CT operations to tackle difficult terrains, and also avoid ground-based threats like Improvised Explosive Devices and ambushes.

- With the motto **Suveg and Sudridh (Swift and Sure)**, the youngest corps of the Indian Army is set to further grow in its tactical importance in the battlefield.

4.5 Evidence of dairy production in the Indus Valley Civilization

Recently, a study by Indian and Canadian archaeologists has **found that dairy products**

were being produced by the Harappans as far back as 2500 BCE. The finding reveals the **earliest evidence of dairy production.**

- **The year 2020 also marks 100 years** of discovery of **Indus Valley Civilisation.**

- **Milk Production:**
  - The results of the study are based on **molecular chemical analysis** of residue in shards **of pottery** found at the archaeological site of **Kotada Bhadli,** in **Gujarat.**

  - Traces seen in cooking vessels indicate the **presence of milk,** which **may have been boiled for consumption.** There are also remains of a **perforated vessel,** which indicates **processing of milk into different forms.**
    - Pots are porous and absorb liquid from food. This helps the pots to preserve the molecules of food such as fats and proteins.
    - Using techniques like C16 and C18 analysis the source of foods can be identified.

  - The **large herd indicates that milk was produced in surplus** so that it could be exchanged and there could have been some kind **of trade between settlements.**
    - This could have also given rise to an industrial level of dairy production.

- **Types of Animals:**
  - Through a process called **stable isotope analysis,** the researchers were also able to identify that **cattles used for dairy production.**
    - Most of the **cattle and water-buffalo died at an older age,** suggesting they could have been **raised for milk,** whereas the majority of **goat/sheep died when they were young,** indicating they could have been **used for meat.**

- **Faceless Civilization:**
  - The Indus Valley Civilisation was faceless — no king, no

bureaucratic organisations, but there were **very close regional interactions between settlements,** a symbiotic **relationship of give and take** that helped the civilisation survive for so long.

Indus Valley Civilisation is known for its **metropolitan cities and the big towns, great urban planning, trading systems, jewellery making.**

- Earlier, there was no idea how the common people were living during the Harappan times, and how they were contributing to the larger network.

- However, the new study throws fresh light on the rural economy of the Indus Valley Civilisation.

Indus Valley Civilization

- The **history of India begins with the birth of the Indus Valley Civilization (IVC),** also known as **Harappan Civilization.**

- It flourished around **2,500 BC, in the western part of South Asia,** in contemporary Pakistan and Western India.

- The Indus Valley was home to the **largest of the four ancient urban civilizations** of Egypt, Mesopotamia, India and China.

- In the 1920s, the Archaeological Department of India carried out excavations in the Indus valley wherein the ruins of the two old cities, viz. **Mohenjodaro and Harappa** were unearthed.

- In 1924, **John Marshall, Director-General of the ASI, announced the discovery** of a new civilisation in the Indus valley to the world.

IVC Sites			
Site	**Excavated by**	**Location**	**Findings**

Harappa	Daya Ram Sahni in 1921	Bank of river Ravi in Montgomery district of Punjab (Pakistan)	• Sandstone statues of Human anato • Granaries • Bullock carts
Mohenjo-Daro (Mound of Dead)	R.D. Banerjee in 1922	Bank of river Indus in Larkana district of Punjab (Pakistan)	• Great bath • Granary • Bronze dancing girl • Seal of Pasupathi • Steatite statue of beard man • A piece of woven cotton
Sutkagendor	Stein in 1929	In southwestern Balochistan province, Pakistan on Dast river	• A trade point between Harappa and Babylon
Chanhudaro	N.G. Majumdar in 1931	Sindh on the Indus river	• Bead makers shop • Footprint of a dog chasing a cat
Amri	N.G. Majumdar in 1935	On the bank of Indus river	• Antelope evidence
Kalibangan	Ghose in 1953	Rajasthan on the bank of Ghaggar river	• Fire altar • Camel's bones • Wooden plough

Lothal	R. Rao in 1953	Gujarat on Bhogva river near Gulf of Cambay	• First manmade port • Dockyard • Rice husk • Fire altars • Chess-playing
Surkotada	J.P. Joshi in 1964	Gujarat	• Bones of horses • Beads
Banawali	R.S. Bisht in 1974	Hisar district of Haryana	• Beads • Barley • Evidence of both pre-Harappan and Harappan culture
Dholavira	R.S Bisht in 1985	Gujarat in Rann of Kachchh	• Water harnessing system • Water reservoir

4.6 Maharani Jindan Kaur: 'One of the most remarkable characters of 19th century history'

Maharani Jindan Kaur, the last wife of Maharaja Ranjit Singh, is in news for the auction of some of her jewellery at Bonhams Islamic and Indian Art sale in London recently.

Who was Rani Jindan?

She was the **youngest wife of Maharaja Ranjit Singh**, founder of the Sikh empire, whose boundaries stretched from Kabul to Kashmir and the borders of Delhi. She was also the **mother of Maharaja Duleep Singh, the last ruler of the empire**, who was raised by the British.

When did she become the regent?

Duleep Singh was five years old when he was placed on the throne in 1843 after the death of two heirs to Maharaja Ranjit Singh. Since he was just a child, Maharani Jindan was made the regent. Not a rubber stamp, she took an active interest in running the kingdom, introducing changes in the revenue system.

When did the British imprison and exile her?

- The British declared war on the Sikh empire in December 1845. After their victory in the first Anglo-Sikh war, they retained Duleep Singh as the ruler but imprisoned Jind Kaur. The British tried hard to vilify Jindan as she tried to rally forces against them, but "unlike many others, she did not give in."

- The British campaign against her was vicious, describing her as a prostitute, seductress and the 'Messalina of the Punjab', a reference to the promiscuous third wife of Roman Emperor Claudius.

- Jindan believed that if united, Indian rulers could oust the British. She was in touch with Bhai Maharaj Singh, who tried to rebel against the British after the annexation of the Sikh empire.

Did she ever reunite with Duleep Singh?

- Maharani Jindan met Duleep Singh at Calcutta in April 1861. The British, ever suspicious of the maharani's machinations, ordered then that she leave for London in May.

- It was due to her influence that Duleep Singh, who had converted to Christianity, returned to Sikhism.

- The long exile took a heavy toll on Maharani Jindan's health. She passed away in her sleep on August 1, 1863, two years after she walked into the Kensington Gardens in 1861.

4.7 Vardhan gives Gandhian Young Technological Awards

Union Minister of Science and Technology has given **Students Innovations for Advancement of Research Explorations – Gandhian Young Technological Innovation (SITARE-GYTI)** and **Society for Research and Initiatives for Sustainable Technological Innovations-Gandhian Young Technological Innovation (SRISTI-GYTI)** awards.

- **Gandhian Young Technological Innovation** awards constitute two categories of awards, **SITARE–GYTI** under Biotechnology Industry Research Assistance Council (**BIRAC**), Department of Biotechnology (DBT) and **SRISTI-GYTI** given by SRISTI.

- The awards and appreciations are given under these two categories to encourage technology students to move towards setting up Biotech and other start-ups.

4.8 Ghogha-Hazira ferry service

Prime Minister Narendra Modi will virtually inaugurate the **Ghogha-Hazira Ro-Pax ferry service** in Gujarat. This will be the second such ferry service to be launched by the PM after the **Ghogha-Dahej route** three years ago, which is now dysfunctional.

What is different about the Ghogha-Hazira RoPax ferry service?

- Both the services were launched **to bridge the Gulf of Khambhat by providing a sea route** to large number of passengers travelling to and fro between Bhavnagar **located on the western side of the Gulf and South Gujarat on the east**. The sea route would be shorter compared to the road.

- The ferry between **Ghogha — a fishing hamlet and an old port — and Hazira — a commercial greenfield port** — which will be virtually inaugurated by PM Modi, is **about 60 km-long and provides easier access to the city of Surat**. Via land, the route is about 400 km.

- In comparison, the first ferry route inaugurated by PM Modi in October 2017, **connects Ghogha to Dahej** which lies near the mouth of Narmada river, north to Hazira. This route is about 32 kilometers and **connects the Dahej PCPIR and Bharuch town**.

Announcing the suspension of ferry service on September 24, 2019, Gujarat Maritime Board (GMB) issued a statement that four to six lakh cusecs of water discharged from the Narmada dam had "resulted in heavy and unexpected siltation in the navigation channel at Dahej Ro-Ro terminal."The water level at this terminal has decreased to just one metre which was "not safe for ferry operations," GMB also invoked the *force majeure* clause (unforeseeable circumstances that prevent fulfilment of contract).

4.9 Software Technology Parks of India – ₹400 crore

The Software Technology Parks of India (STPI) is investing up to ₹400 crore in setting up office and connectivity infrastructure across several cities, offering small technology firms a 'plug-and-play' facility.

- An STPI is **a society established in 1991** by the **Ministry of Electronics and Information Technology**.

- The objective of an STPI is to **encourage, promote and boost the export of software**from India.

- STPI maintains internal engineering resources to **provide consulting, training and implementation of IT-enabled services**.

- The STP Scheme is **a 100 per cent Export Oriented Scheme** for the development and export of computer software, including export of professional services using communication links or physical media.

- This scheme is unique in its nature as **it focuses on one product/sector, i.e. computer software**.

- The scheme integrates the government concept of 100 per cent Export Oriented Units (EOU) and Export Processing Zones (EPZ) and the concept of Science Parks / Technology Parks, as operating elsewhere in the world.

4.10 Arunachaleswarar Temple @ Tiruvannamalai

The Arunachaleswarar Temple at Tiruvannamalai is gearing up for a simple 'Karthigai Deepam' festival. This year, the 'mahadveepam' falls on November 29. Around 15 lakh devotees turn up for the event.

- Situated at the foot of Tiruvannamalai Hills (Tamil Nadu) and spread over 25

acre, Arunachaleswarar Temple is an imposing structure with a marvellous architecture.

- It boasts **four gateway towers** known as **gopurams**, each of which is encompassed with **mandapams, shrines and enclosures**, decorated with finely carved sculptures and pillars.

- The **eastern tower** with **11 storeys**, stands at a height of 66 m and is one of the largest temple towers in India. Also known as the **Annamalaiyar Temple**, it is **dedicated to Lord Shiva** and invites devotees in large numbers from all parts of the country.

- Built in the **traditional Dravidian style of architecture**, the temple is believed to be **the eighth-largest Hindu temple in the world**. The temple complex houses many halls and the most popular one is the thousand-pillared hall, which was **constructed during the Vijayanagar period (1336-1646)**.

- The temple is one of the **pancha bhoota sthalams**, which are **dedicated to the manifestation of five natural elements**. Legend has it that the **lord has apparently manifested himself as an element of fire in this temple**.

- Arunachaleswarar Temple **houses eight lingams known as ashtalingam**, which are positioned at different locations facing different directions. These lingams are named as I*ndralingam, Agnilingam, Yamalingam, Niruthilingam, Varunalingam, Vayulingam, Kuberlingam and Esanyalingam*. Each lingam **signifies different directions of the earth** and is believed to bless the devotees who undertake Girivalam, a popular religious ritual, with different benefits.

Karthigai Deepam

- **Karthika Deepam**, **Karthikai Vilakkidu** or **Thrikarthika** is a festival of lights that is observed by Hindus of Tamil Nadu, Sri Lanka and Kerala.

- It falls in the month of Kārttikai (mid-November to mid-December) as per Tamil calendar. The full moon day of this Karthigai month is called **Karthigai pournami**.

- In Kerala, this festival is known as **Thrikkarthika**, celebrate to **welcome Goddess Shakti**. In the rest of India, a related festival called **Kartik Purnima** is celebrated in a different date.

- It is celebrated in the name of '*Lakshabba*' in the Nilgiris district of Tamil

Nadu. The name of the festival born from the name of the **god Kartikeya**. In Tamil calendar the name of this month is called as **Kārttikai**.

4.11 Chief Information Commissioner – Oath administered

Information Commissioner Yashvardhan Kumar Sinha has been administered the oath as the Chief Information Commissioner (CIC) recently by the President of India.

- Under the provision of *Section-12 of RTI Act 2005* the Central Government shall, by notification in the Official Gazette, constitute a body to be known as the Central Information Commission.

- **Composition***:* The Central Information Commission shall consist of the Chief Information Commissioner (CIC) and such number of Central Information Commissioners **not exceeding 10** as may be deemed necessary.

- **Appointment –** Section 12(3) of the RTI Act 2005 provides as follows – The Chief Information Commissioner and Information Commissioners shall be **appointed by the President on the recommendation of a committee** consisting of – **The Prime Minister**, who shall be the Chairperson of the committee; **The Leader of Opposition**in the Lok Sabha; and **a Union Cabinet Minister** to be nominated by the Prime Minister.

- **Eligibility –** Section 12(5) of the RTI Act 2005 provides that the Chief Information Commissioner and Information Commissioners shall be **persons of eminence in public life with wide knowledge and experience in law, science and technology, social service, management, journalism, mass media or administration and governance**. Section 12(6) of the RTI Act 2005 provides that Chief Information Commissioner or an Information Commissioner shall **not be a Member of Parliament or Member of the Legislature of any State or Union Territory** as the case may be, or hold any other office of profit or connected with any political party or carrying on any business or pursuing any profession.

- **Term duration and service conditions –** Section 13 of the RTI Act 2005 provides that the Chief Information Commissioner shall hold office for **a term of five years from the date on which he enters upon his office and shall not be eligible for reappointment**. Section 13(5)(a) of the RTI Act 2005 provides that the salaries and allowances payable to and other terms and conditions of

service of the **Chief Information Commissioner shall be the same as that of the Chief Election Commissioner.**

4.12 15th Finance Commission – Report

The Fifteenth Finance Commission (XVFC) led by **Chairman Shri NK Singh** has submitted its Report for the period 2021-22 to 2025-26 to the Hon'ble President of India.

- **Article 280** of the Constitution of India provides for a quasi-judicial body, the Finance Commission.

- It is **constituted by the President of India** every fifth year or at such earlier time as he considers necessary.

- The recommendations made by the Finance Commission are **only advisory in nature** and hence, not binding on the government.

- As per the terms of reference (ToR), the Commission was mandated to give its recommendations for five years from 2021-22 to 2025-26 by 30 October, 2020.

- Last year, the Commission had submitted its report containing recommendations for the year 2020-21 which was accepted by the Union Government and tabled in the Parliament on 30 January 2020.

- The Commission was asked to give its recommendations on many unique and wide-ranging issues in its terms of reference. Apart from *the vertical and horizontal tax devolution, local government grants, disaster management grant,* the Commission was also asked to examine and recommend performance incentives for States in many *areas like power sector, adoption of DBT, solid waste management* etc.

- The Commission was also asked to examine **whether a separate mechanism for funding of defence and internal security** ought to be set up and if so how such a mechanism could be operationalised. The Commission has sought to address all its ToRs in this Report to the Union government.

- The Commission has analysed the finances of each State in great depth and has come up with State-specific considerations to address the key challenges that individual States face.

- The cover and title of the Report are also unique in this Report- "*Finance*

Commission in Covid Times" and the use of Scales on the cover to indicate the balance between the States and the Union.

Recommendations of the 'Interim Report of 15th Finance Commission'

- An interim report of the 15th Finance Commission was submitted in Parliament during the budget session in February 2020. The report largely preserved the devolution mathematics of its predecessor, belying concerns of a sizeable cut in States' share.

- The report had recommended a **one percentage point reduction** in the vertical split of the divisible pool of tax revenues accruing to States to 41%. This was done after the reorganisation of the erstwhile State of Jammu and Kashmir into the Union Territories of Jammu and Kashmir and Ladakh.

- Even though the former State's notional share based on the parameters for horizontal devolution would have been about 0.85%. But, the FC has cited the security and other special needs of the two territories to enhance their aggregate share to 1%, which would be met by the Centre.

- Urban local bodies, especially municipalities in cities with populations of more than one million, were given a larger share of the devolution.

- The **demographic performance** was introduced as the new crucial parameter. The mandate to adopt the population data from the 2011 Census is the reason why the FC has incorporated this additional criterion. This was done to ensure that the States which have done well on demographic management are not unfairly disadvantaged. The norm has been assigned a 12.5% weight, as it indirectly evaluates performance on the human capital outcomes of education and health.

4.13 Competition Commission of India – CCI

The Competition Commission of India (CCI) has ordered a detailed probe against Google for 'abuse' of its dominant position, primarily with regard to its digital payments application GPay.

- The order follows a complaint by an 'informant' alleging multiple instances of abuse of dominant position by Google, with CCI deciding to carry forward the investigation into two of these instances — **pre-installation of GPay on**

Android OS smartphones and use of Google Play's in-app billing as the method of payment by developers.

- The Commission is of the prima facie view that Google has contravened various provisions of Section 4 of the Act. These aspects warrant a detailed investigation. The Commission has directed the Director General to finish the probe and submit the report in 60 days.

'Competition Commission of India'

- The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, follows the philosophy of modern competition laws. The Act **prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations** (acquisition, acquiring of control and M&A), which causes or likely to cause an appreciable adverse effect on competition within India.

- The objectives of the Act are sought to be achieved through the **Competition Commission of India, which has been established by the Central Government with effect from 14th October 2003.**

- CCI consists of **a Chairperson and 6 Members appointed by the Central Government (not less than 2 members).** It is the duty of the Commission to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.

- The Commission is also required to **give opinion on competition issues on a reference received from a statutory authority established under any law** and to undertake competition advocacy, create public awareness and impart training on competition issues.

Significance of CCI

- Competition is the best means of ensuring that the **'Common Man' or 'Aam Aadmi' has access to the broadest range of goods and services at the most competitive prices**.

- With increased competition, producers will have maximum incentive to innovate and specialise. This would result in reduced costs and wider choice to consumers. A fair competition in market is essential to achieve this objective.

- The goal of CCI is to create and sustain fair competition in the economy that will provide a 'level playing field' to the producers and make the markets work for the welfare of the consumers.

- "*The main objective of competition law is to promote economic efficiency using competition as one of the means of assisting the creation of market responsive to consumer preferences. The advantages of perfect competition are three-fold:* **allocative efficiency***, which ensures the effective allocation of resources,* **productive efficiency***, which ensures that costs of production are kept at a minimum and* **dynamic efficiency***, which promotes innovative practices.*" – **Supreme Court of India in 2010**.

4.14 Swami Vivekananda statue unveiled

Prime Minister Narendra Modi has unveiled a statue of Swami Vivekananda in JNU Campus, New Delhi.

- Swami Vivekananda was born Narendra Nath Datta, on 12th January, 1863. He was **a monk and chief disciple of Ramakrishna Paramhansa**.

- He introduced **Indian philosophies of Vedanta and Yoga** to the Western world and is credited with raising interfaith awareness, bringing Hinduism to the world stage during the late 19th century.

- He established **Ramakrishna Mission in 1987**, named after his Guru Swami Ramakrishna Paramhansa. The institution did extensive educational and philanthropic work in India.

- He also represented India in the **first Parliament of Religion held in Chicago (U.S.) in 1893**.

Philosophy of Vedanta

- It was **based on Upanishads** and their interpretation.

- Its aim was to enquire about **'Brahman' (ultimate reality)** which was the central concept of Upanishads.

- It saw **Veda as the ultimate source of information** and whose authority could not be questioned.

- It emphasised on path of knowledge **(jnana)** as opposed to that of

sacrifice **(karma)**.

- Ultimate aim of knowledge was **'Moksha'** i.e. liberation from **'sansara'**.

Swami Vivekananda

- He was initially a western educated **Brahmo Samajist** in his young age. But the Brahmo movement failed to provide solutions to his spiritual quests.

- He became the disciple of Sri Ramakrishna whose Bhakti appealed to him more than the high intellectualism of Brahmos.

- He was a proponent of **Practical Vedanta** which he considered as a religion most suited to the needs of modern man. He believed in the **essential unity** of man and **god (Advaita)**.

- He believed that it was only in **selflessness** and in consciously trying to serve the larger humanity that one truly gained a perspective on religion and God. This thought laid emphasis on the **Karma Marga of Bhagavad-Gita**.

- He reoriented the traditional Advaita of **world renunciation** to a new **world affirmation ideal**. He searched for **salvation in selflessness**.

- Many rivers flow by many ways but they fall into the same sea. This is the basis of **Swamijis religious universalism and eclecticism.**

Social reformer

- In the first place **he did not think man's thought could truly turn to God unless his basic social needs had been reasonably met**. He also considered it **a sin to teach spirituality to a starving man**.

- God is everywhere but he is most **manifest in man**. So serve man as God. That is as good as worshipping God. He joined together the ideals of **one's own salvation and welfare of the world.**

- There is infinite moral and spiritual potential in man. To develop that potential is man's foremost duty in life. He declared **education to be the manifestation of divinity inherent to man**.

- He was a **critic of** – Idolatry, Polytheism, Religious superstitions, Exploitation by priests in the religious sphere.

- He envisaged an **equal role to women in society and promoted women**

emancipation and empowerment.

- He wanted a new man to emerge from the confluence of the **spiritualism of the east and materialism of west.**

Contribution to nationalism

- Swami Vivekananda contributed enormously to the strengthening of **Hindu self-pride and cultural nationalism.**

- Vedanta was all about man-making. **Manliness and activism** are the gospels of swamiji for the resurgence of India.

- Young men and women, in his vision, were to be the building blocks of a resurgent, **Vedantic India.**

- He gave the call of **self-sufficiency and self-help** which he considered necessary for national regeneration.

- He inspired a whole **generation of patriots and revolutionaries**. He is considered a patron prophet by the revolutionaries of Bengal.

- He declared that India needs **muscles of iron and nerves of steel** to retain its lost glory and pride.

4.15 Gujarat Maritime Cluster – GIFT City

The concept of maritime cluster is new to India, but these clusters have been driving some of the most competitive ports of the world like Rotterdam, Singapore, Hong Kong, Oslo, Shanghai, and London.

What is a 'maritime cluster'?

- Simply put, a maritime cluster is **an agglomeration of firms, institutions, and businesses in the maritime sector that are geographically located close to each other**.

- The Gujarat Maritime Board (GMB), a nodal agency of the Gujarat government, has been trying to develop such a cluster at GIFT City in the state capital Gandhinagar through its subsidiary Gujarat Ports Infrastructure and Development Company Ltd (GPIDCL).

- This cluster will initially **consist of Gujarat-based shipping lines, freight**

forwarders, shipping agents, bunker suppliers, stevedores, and ship **broker**s with chartering requirements.

- In the second stage, the cluster would attempt to **bring Indian ship owners, ship operators, Indian charterers and technical consultants** scattered in cities like Mumbai, Chennai, and Delhi to Gujarat. Thereafter it would **target to attract global players** in the maritime sphere.

This project will **try to bring back businesses** that have **migrated over the years to foreign locations** due to the absence of the right ecosystem in the country. Large corporates like the Aditya Birla Group and Tata Group tap clusters in Dubai and Singapore for their maritime needs.

Significance

- An Alternate Dispute Resolution (ADR) Centre **will be set up under the aegis of the Gujarat Maritime University**, which will come up at the maritime cluster. A centre such as this does not currently exist in India.

- This sector is **international in character and hence is a breeding ground for arbitration and mediation** in cases revolving around bunker disputes, ship sales, shipbuilding and repairs, commodities, etc.

- This centre in Gujarat will **provide an option to Indian players seeking to avoid availing the services of international alternate dispute resolution hubs** which entail huge costs, time, and travel.

- The cluster is also expected to **house the office of the Director General of Shipping**.

- This office, which is expected to come up on 12,000 square feet of space in GIFT City, will **look after the needs of the shipping sector, including ship recycling**.

4.16 MeitY – Draft Data Centre Policy 2020

Recently, the **Ministry of Electronics & Information Technology (MeitY)** has released the **Draft Data Centre Policy,** which aims to simplify clearances for setting up data centres in the country.

- **Vision of the Draft Data Centre Policy:**

  - Making **India a Global Data Centre hub,**

  - **Promote investment** in the sector,

  - Propel **digital economy** growth,

  - Enable provisioning of trusted hosting infrastructure to fulfil the growing demand of the country and facilitate state of the art **service delivery to citizens.**

- **Terms Defined:**

  - **Data Centre:** It is a dedicated secure space within a building/centralized location where computing and networking equipment is concentrated for the purpose of collecting, storing, processing, distributing or allowing access to large amounts of data.

  - **Data Centre Parks:** These are specialized secure Data Zone, strategically located with the most conducive non-IT and IT infrastructure, and regulatory environment for housing mix of small scale/large scale clusters of Data Centres to serve the high needs of compute, storage, networking and provision of a wide range of data-related services.

- **Provisions:**

  - Providing **Infrastructure Status to the Data Centre Sector,** at par with other sectors like Railways, Roadways, and Power.

    - The status will help the sector **avail long-term credit from domestic and international lenders** at easier terms and will give a boost to the investments.

  - **Demarcation of specific zones** with necessary infrastructure such as roads, running water and electricity to set up data centre parks.

  - A **single-window, time-bound clearance system** for all the approvals required to set up a data-centre park.

  - **Formulation of Data Centre Incentivization Scheme (DCIS)** which will specify the intended beneficiaries, applicability criteria and fiscal and non-fiscal incentives for the sector.

- Setting-up at least four **Data Centre Economic Zones (DCEZ)** in the country, as a Central Sector Scheme – DCEZ Scheme. DCEZs would create an ecosystem of Hyperscale Data Centres, Cloud Service Providers, IT companies, R&D units and other allied industries.

- In order to address the issues around the high consumption of power, data centre parks would be encouraged to **set up their own power generation units,** and use **renewable energy.**

- Data centres will be declared as an **Essential Service** under **"The Essential Services Maintenance Act, 1968 (ESMA)"**which means that there would be a continuity of services even during times of calamities or crisis.

- **Strengthening the Atmanirbhar Bharat initiative** by identifying possible opportunities of manufacturing of data centre equipment (IT as well as non-IT) in the country.

  - The Policy also identifies possible areas of participation by micro, small, and medium enterprises and start-ups.

- Collaboration with the **Ministry of Skills Development and Entrepreneurship (MSDE)** and leading academic institutes to impart large scale training to workforce on Data Centre, Digital and Cloud technologies, and facilitate sector linkages for such trained workforce.

- An **Inter-Ministerial Empowered Committee (IMEC)** would be set up under the Chairmanship of Secretary, MeitY, with participation from various Central Ministries and State Governments.

  - It shall be the **key decision-making body** to facilitate the implementation of various measures as defined under this policy framework, enabling ease of doing business in the sector.

- An independent **Data Centre Industry Council (DCIC)** is proposed to be set up, which would act as an interface between the sector and the Government.

Need for a Data Centre Policy

- The need to set up data centre infrastructure in India comes against the backdrop of **data localization norms under theproposed personal data protection legislation** and for **"protection of the digital sovereignty of the country in an increasingly connected world".**

  - Launch of **National Digital Health Mission (NDHM)** and **Global Partnership on Artificial Intelligence (GPAI),** which involve use of data.

- The **size of the digital economy** in India is estimated to grow from USD 200 billion in 2017-18 to USD 1 trillion by 2025.

  - India has witnessed **an exponential growth in digital-commerce, digital entertainment and use of social media.**

  - India's **mobile data consumption is already the highest in the world** and is constantly increasing.

- India also offers **advantages** of having a favourable geographical location on the world map, availability of economic resources, established global connectivity through submarine cables, easy and cost-effective access power and readily available skilled manpower, enabling the nation to become a **global Data Centre hub.**

- There are **known impediments to the growth of data centre sector** such as lack of infrastructure or Industry status of the Data Centres, complex clearance processes, time consuming approvals, high cost of power, lack of published standards, absence of specialised building norms for building the Data Centres, submarine cable network connectivity limited to few states and high cost of capital and operational expenditure etc.

  - Further, the data centre industry has been **largely concentrated in top 4 cities,** with Mumbai, Delhi, Bengaluru and Chennai accounting for 60% of total sites.

Road ahead

- The data centre expansion will be supported by growth in data volumes to support high growth in e-commerce, increase in usage of social media, greater preference for over the top (OTT) platforms, the government's impetus to

the **Digital India initiative** and rapid digitalisation of services across industries (**Industry 4.0** and **5G**).

- Currently, there is no large-scale foreign investment in data centres in the country. India could essentially become a data centre hub for global enterprises, if the government has a clear cut policy around it.

4.17 FCRA Rules – Amendment

Recently, the **Ministry of Home Affairs (MHA)** has notified new rules under the **Foreign Contribution Regulation Act (FCRA), 2010.**

Foreign Contribution Regulation Act (FCRA):

First enacted in **1976,** was once amended in the year **2010 to regulate the foreign contributions or donations and hospitality** (air travel, hotel accommodation etc) to Indian organizations and individuals and to stop such contributions which might damage the national interest.

- It has been **amended again in 2020** to enhance transparency and accountability in the receipt and utilisation of foreign contributions and facilitating the genuine non-governmental organisations or associations who are working for the welfare of society.

- The Act is **applicable to** all associations, groups and non-governmental organisations (NGOs) who intend to receive foreign donations.

- As per the FCRA, members of legislatures, political parties, government officials, judges and media persons are **prohibited from receiving any foreign contribution.**

The **MHA** has notified new rules under the **FCRA, 2010** thereby amending the **FCRA Rules, 2011.**

New Rules:

- Norms for **farmers, students, religious and other groups** who are not directly aligned to any political party to receive foreign funds, if the groups are not involved in active politics, has been relaxed.

- FCRA **registrations** have been made **more stringent.**

  ➢ Any organisation that wants to register itself under FCRA shall be in existence for **three years** and should have spent a minimum amount of **15 lakh** on its core activities for the benefit of society during the last three financial years.

  ➢ However, the **Central Government** in exceptional cases or in cases where a person is controlled by the Central Government or a State Government **may waive the conditions.**

  ➢ Office bearers of NGOs or organisations seeking registration under the FCRA are required to submit a specific commitment letter from the donor indicating the amount of foreign contribution and the purpose for which it was being given.

- **Political Groups:**

  ➢ A new clause has been inserted which says that groups mentioned in Clause V and VI will only be considered a political group by the Centre if they participate in **"active politics or party politics".**

  ➢ Earlier, the rules on said clauses dealt with "guidelines for the declaration of an organisation to be of a political nature, not being a political party", and the Central government could specify an organisation as that of political nature based on six criteria.

  ➢ **Clause V of Rule 3 (FCRA rules 2011)** qualified a political group as organisations of farmers, workers, students, youths based on caste, community, religion, language or otherwise, which is not directly aligned to any political party, but whose objectives as stated in the memorandum of association, or activities gathered through other material evidence, include steps towards advancement of political interests of such groups.

  ➢ **The other 2011 clause (VI)** qualified a group as political if the organisation by whatever name habitually engages itself in or employs common methods of political action like **rasta roko, jail bharo, rail roko, bandh or hartal in support of public causes.**

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4.18 Swarna Jayanti Fellowship: DST

The **Department of Science & Technology (DST)** has selected **21 scientists** for the **Swarna Jayanti fellowship.**

- The Swarna Jayanti Fellowships scheme was **instituted by the Government of India to commemorate India's fiftieth year of Independence.**

- It provides **special assistance and support to a selected number of young scientists** with a proven track record to enable them to pursue basic research in frontier areas of science and technology.

- The award consists of a **Fellowship of Rs. 25000 per month** in addition to the salary drawn from the parent Institute along with a **Research Grant of Rs. 5 lakh per annum** by Department of Science and Technology (DST) for a **period of 5 years.**

  - In addition to fellowship, grants for equipment, computational facilities, consumables, contingencies, national and international travel, and other special requirements, if any, is covered based on merit.

  - The **fellowships are scientist specific and not institution-specific,** very selective, and have close academic monitoring.

- Scientists selected for the award are allowed to pursue unfettered research with a freedom and flexibility in terms of expenditure as approved in the research plan.

  - The project should contain innovative research ideas and it should have a potential of making impact on R&D in the discipline.

- The project submitted by the selected Fellows are considered for funding by the **Science & Engineering Research Board (SERB)** as per SERB norms.

  - SERB is a **statutory body under the Department of Science and Technology,** established by an Act of the Parliament of India in 2009.

4.19 WHO – Global Centre for Traditional Medicine

The World Health Organization (WHO) will set up a **Global Centre for Traditional**

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Medicine in India. WHO Director-General Tedros Adhanom Ghebreyesus made the announcement in a video message at the event in which Prime Minister Modi dedicated two future-ready Ayurveda institutions in Jaipur and Jamnagar to the nation via video conferencing on the occasion of the 5th Ayurveda Day.

The Institute of Teaching and Research in Ayurveda (ITRA), Jamnagar (Gujarat), and the National Institute of Ayurveda (NIA), Jaipur (Rajasthan), are both premier institutions of Ayurveda. The Jamnagar institute has been conferred the status of an Institution of National Importance (INI) by an act of Parliament, and the one at Jaipur has been designated an Institution Deemed to be University (De novo Category) by the University Grants Commission (UGC), according to the AYUSH Ministry.

Traditional medicines in India

- The traditional Indian system of medicine, which comprises of **Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH)**, is a perennially neglected alternative medicine sector. It played an important role against the imperialistic British reign by the cultural nationalistic reassertion but is losing its significance in modern times.

- These systems are based on **definite medical philosophies** and represent a way of healthy living with established **concepts on prevention of diseases and promotion of health**.

- **Importance and demand** of Yoga, Ayurveda, Homeopathy, Siddha and Unani medical systems **have grown** especially due to **growing challenges** of Non-Communicable Diseases (NCDs), lifestyle disorders, long term diseases, multi-drug resistant diseases, which are **not easily solved by the allopathic medical system**.

- After Independence, the Government started supporting all the medical systems for their growth, thereby offering the public a choice for their routine health care need. Because of this as now there are **public patronage and institutional support to widen the strength of these systems** in **curative, preventive, promotive aspects of health care**.

- **Challenges** – The traditional system of medicine faces the problem of inadequate resources, lack of health centres, capacity building, practitioners and public faith on its efficiency. There are dishonest practices by most of the AYUSH practitioners making allopathy look more trustworthy.

Significance

- WHO Global Centre of Traditional Medicine in India will **help to strengthen the evidence, research, training and awareness of traditional and complementary medicine**.

- This new centre will support WHO's efforts to implement the WHO traditional medicine strategy 2014-2023, which aims to support countries in developing policies and action plans to strengthen the role of traditional medicine.

World Health Organisation

- Founded in 1948 and based in Geneva, Switzerland, it is the UN agency responsible for global public health.

- Has 194 member states, and aims to "promote health, keep the world safe and serve the vulnerable.

- Involved in vaccination campaigns, health emergencies and supporting countries in primary care.

- Funded by a combination of members' fees based on wealth and population and voluntary contributions.

Funding for WHO

World Health Organisation is funded through

1. **Assessed Contributions –**

- These are the dues countries pay in order to be a member of the Organization.

- The amount each Member State must pay is calculated relative to the country's wealth and population.

- These contributions have declined, and now account for **less than one-fourth of its funding.**

2. **Voluntary Contributions –**

- These come from Member States (in addition to their assessed contribution) or from other partners (organisations & individuals)

- They can range from flexible to highly earmarked.

- Top funders include Bill and Melinda Gates (USD 367.7 million), GAVI Vaccine Alliance, World Bank, Rotary International and the European Commission.

4.20 Birsa Munda – Jayanti

Prime Minister Narendra Modi has paid tributes to Bhagwan Birsa Munda on his Jayanti.

Bhagwan Birsa Munda

- Born in **1875** in the Munda tribe. He is often referred to as **'Dharti Abba'** or the Earth Father.

- He led the rebellion that came to be known as **Ulgulan (revolt) or the Munda rebellion** against the British government-imposed feudal state system.

- He awakened the masses and sowed the seeds of revolt in them against the landlord as well as the Britishers. He organised masses to **stop paying debts/interest to moneylenders and taxes to the British.** By this, he led a revolt to bring an end to Victorian rule and the establishment of Munda Rule in Jharkhand (erstwhile Bengal Presidency region).

- He formed **two military units-** one for **military training and armed struggle,** the other for **propaganda.** He combined religion with politics and traveled across villages giving discourses and building a politico-military organisation.

- His struggle against the exploitation and discrimination against tribals led to the passing of the **Chotanagpur Tenancy Act in 1908** which **restricted the passing of land from the tribal people to non-tribals.**

4.21 Appointment of Judges – Article 217

President of India in exercise of the power conferred by clause (1) of Article 217 of the Constitution of India has appointed 28 judges to the Allahabad High Court.

Appointment of judges

- As per article 217, the Chief Justice of the high court is appointed by the President in consultation with the Chief justice of India as well as the Governor of the state in question.

- A collegium system has evolved over the years in which a Collegium headed by the CJI (along with two senior most Supreme Court Judges) makes recommendation to the government for appointment of judges.

- The Collegium recommends the names to the law ministry which after scrutinising send the paper to the President.

- The President either approves the names or returns the names for reconsideration of the Supreme Court. If still the Supreme Court sends the same names, the President appoints the persons recommended.

Qualification of a High Court Judge

A person to be appointed as a judge of a high court, should be a citizen of India. Further,

- He should have held a judicial office in the territory of India for ten years or

- should have been an advocate of high court(s) for ten years.

There is no minimum age fixed for high Court judges, and unlike in Supreme Court, there is no provision for appointment of a distinguished jurist as a judge of a high court.

First Judge Case

- The **S P Gupta case** (December 30, 1981) is called the "First Judges Case". It declared that the "primacy" of the CJI's recommendation to the President can be refused for "cogent reasons".

- This brought a paradigm shift in favour of the executive having primacy over the judiciary in judicial appointments for the next 12 years.

Second Judge Case

- On October 6, 1993, came a nine-judge bench decision in the **Supreme Court Advocates-on Record Association vs Union of India** case — the "Second Judges Case". This was what ushered in the **collegium system**.

- The majority verdict written by Justice J S Verma said **"justiciability"** and **"primacy"** required that the CJI be given the "primal" role in such appointments. It overturned the S P Gupta judgment, saying "*the role of the CJI is primal in nature because this being a topic within the judicial family, the executive cannot have an equal say in the matter*".

- Here the word '*consultation*' would shrink in a mini form. It now held that "consultation" meant "concurrence", and that the CJI's view enjoys primacy. This is with the rationale that CJI could be best equipped to know and assess the "worth" of candidates. But, the CJI was to formulate the opinion only through a body of senior judges that the court described as the **'collegium'**.

Third Judge Case

- In 1998, **President K R Narayanan** issued a presidential reference to the Supreme Court as to what the term "**consultation**" really means in **Articles 124, 217 and 222** (transfer of HC judges) of the Constitution.

- The question was if the term "consultation" requires consultation with a number of judges in forming the CJI's opinion, or whether the sole opinion of the CJI constituted the meaning of the articles.

- In reply, the Supreme Court laid down nine guidelines for the functioning of the quorum for appointments/transfers; this came to be the present form of the collegium. The court clarified that the collegium would comprise CJI and four senior-most colleagues, in appointments to the Supreme Court. And, the CJI and two senior-most colleagues in the case of appointments to the high courts.

- Besides, a judgment dated October 28, 1998, written by Justice S P Bharucha at the head of the nine-judge bench, used the opportunity to strongly reinforce the concept of "primacy" of the highest judiciary over the executive. This was the "Third Judges Case".

4.22 Winter Session of Parliament unlikely

The winter session of Parliament, which usually commences by the last week of November, is unlikely to be held due to the high number of COVID-19 cases in Delhi.

- Going by parliamentary records, there had been only three instances — in 1975, 1979 and 1984 — when the winter session was called off. The **Cabinet**

Committee on Political Affairs meets to decide the dates of the session and an announcement has to be made giving the members at least two weeks' notice. So far, the committee has not met, and the government has a plan to combine the Budget session, which begins usually on February 1, and the winter session.

- The Constitution mandates **there should not be a gap of six months or more between two sessions.**

'Session of Parliament'

- A session of the Indian Parliament is the period during which a House meets almost every day uninterruptedly to manage the business. There are typically three sessions in a year. A session contains many meetings.

- The process of calling all members of the Parliament to meet is called **Summoning of Parliament**. It is the President who summons Parliament.

- In general, the sessions are as follows:

    - Budget session (February to May)

    - Monsoon session (July to September)

    - Winter session (November to December)

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4.23 SC – Article 32 of Indian Constitution

Recently, a Supreme Court Bench headed by Chief Justice of India S A Bobde observed that it is "trying to discourage" individuals from filing petitions under Article 32 of the Constitution. The observation came during the hearing of a petition seeking the release of journalist Siddique Kappan, who was arrested with three others while on their way to Hathras, Uttar Pradesh, to report on an alleged gangrape and murder.

Article 32

- It is one of the fundamental rights listed in the Constitution that each citizen is entitled. Article 32 deals with the '**Right to Constitutional Remedies**', or affirms the right to move the Supreme Court by appropriate proceedings for the enforcement of the rights conferred in Part III of the Constitution. It states

that the Supreme Court "shall have power to issue directions or orders or writs, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto and certiorari, whichever may be appropriate, for the enforcement of any of the rights conferred by this Part". The right guaranteed by this Article "shall not be suspended except as otherwise provided for by this Constitution".

- The Article is included in Part III of the Constitution with other fundamental rights including to Equality, Freedom of Speech and Expression, Life and Personal Liberty, and Freedom of Religion. Only if any of these fundamental rights is violated can a person can approach the Supreme Court directly under Article 32.

- During the Constituent Assembly debates in December 1948, a discussion on this fundamental right (in the draft, it is referred to as Article 25), Dr B R Ambedkar had said, "If I was asked to name any particular Article in this Constitution as the most important — an Article without which this Constitution would be a nullity — I could not refer to any other Article except this one. It is the very soul of the Constitution and the very heart of it…" He said the rights invested with the Supreme Court through this Article could not be taken away unless the Constitution itself is amended and hence it was "one of the greatest safeguards that can be provided for the safety and security of the individual".

- Others in the drafting committee also said that since it gives a person the right to approach the Supreme Court as a remedy if fundamental rights are violated, "it is a right fundamental to all the fundamental rights" guaranteed under the Constitution.

- The Constituent Assembly debated whether fundamental rights including this one could be suspended or limited during an Emergency. The Article cannot be suspended except during the period of Emergency.

Can High Courts be approached in cases of violation of fundamental rights?

Both the High Courts and the Supreme Court can be approached for violation or enactment of fundamental rights through five kinds of writs:

- **Habeas corpus** (related to personal liberty in cases of illegal detentions and wrongful arrests)

- **Mandamus** — directing public officials, governments, courts to perform a

statutory duty;

- **Quo warranto** — to show by what warrant is a person holding public office;

- **Prohibition** — directing judicial or quasi-judicial authorities to stop proceedings which it has no jurisdiction for; and

- **Certiorari** — re-examination of an order given by judicial, quasi-judicial or administrative authorities.

In civil or criminal matters, the first remedy available to an aggrieved person is that of trial courts, followed by an appeal in the High Court and then the Supreme Court. When it comes to violation of fundamental rights, an individual can approach the High Court under Article 226 or the Supreme Court directly under Article 32. **Article 226, however, is not a fundamental right like Article 32**.

What have been its observations over the years?

- In *Romesh Thappar vs State of Madras (1950)*, the Supreme Court observed that Article 32 provides a "guaranteed" remedy for the enforcement of fundamental rights. "This Court is thus constituted the protector and guarantor of fundamental rights, and it cannot, consistently with the responsibility so laid upon it, refuse to entertain applications seeking protection against infringements of such rights," the court observed.

- During the Emergency, in Additional District Magistrate, *Jabalpur vs S S Shukla (1976)*, the Supreme Court had said that the citizen loses his right to approach the court under Article 32.

- Constitutional experts say that it is eventually at the discretion of the Supreme Court and each individual judge to decide whether an intervention is warranted in a case, which could also be heard by the High Court first.

4.24 Bru-Reang Agreement – Mizoram

Leaders of the Mizoram Bru refugees have demanded commencement of their permanent rehabilitation in Tripura in the light of the quadripartite agreement signed in New Delhi in January.

The government had selected 12 places including the Kanchanpur subdivision in north Tripura where the Brus have been housed in six makeshift camps since 1997. However,

the decision to settle some of the refugees is facing protests from a local forum called Joint Movement.

'Brus'

- Reang or Bru are one of the 21 scheduled tribes of the Indian state of Tripura.

- The Bru are the second most populous tribe of Tripura after the Tripuris.

- The correct nomenclature for this ethnic group is actually Bru although the name Reang was accidentally incorporated by the Indian government during a census count.

- The Bru can be found all over the Tripura state in India.

- However, they may also be found in Mizoram, Assam, Manipur and Bangladesh.

Culture and religion

- The marriage system is similar to other Tripuri tribes of Tripura.

- There is no dowry system.

- Dance is an integral part of Reang life.

- The Hojagiri folk dance of Riang sub tribe is rather well known all over the world.

- 'Buisu' is the most popular festival of reang tribes.

- The majority of the Reang belong to the Vaishnav school of Hinduism and claim Kshatriya status.

- They are polytheists and believe in multiple Gods and Goddesses.

Bru-Reang agreement

- In 1997, **about 30,000 Bru-Reang tribals fled from Mizoram and took shelter in Tripura's refugee camps**. These refugees were said to have fled from Mizoram **due to ethnic tension**. Before the agreement, these people were living in temporary shelters at Kanchanpur, in North Tripura.

- To end the 23-year old Bru-Reang refugee crisis, **an agreement was signed in January 2020 which is known as Bru-Reang agreement**. The Bru-Reang

agreement was signed between the Government of India, presided by the Union Home Minister, Governments of Tripura and Mizoram and Bru-Reang representatives on 17 January, 2020.

- According to Bru-Reang Refugee agreement –

  - After the agreement about 34,000 Bru refugees will be settled in Tripura.

  - Centre will provide help to these tribes for their all-round development and for this around Rs 600 crores were sanctioned.

  - These tribes would get all the rights that normal residents of the State get and would be able to enjoy the benefits of social welfare schemes for Centre and State governments.

  - Each displaced family would be given 40X30 sq.ft. residential plots.

  - For 2 years, they will be given the aid of Rs 5000 per month, free ration for 2 years and about Rs 1.5 lakh aid to build their house.

  - Under this agreement, the Tripura Government would provide the land.

4.25 President of India recently appointed 28 Additional Judges

President of India recently appointed 28 Additional Judges as Permanent Judges of Allahabad High Court through Article 217(1) of the Indian Constitution.

Article 217 (1)

- Every Judge of a High Court shall be appointed by the President by warrant under his hand and seal after consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the chief Justice, the chief Justice of the High court.

- Every Judge of a High Court shall hold office, in the case of an additional or acting Judge, as provided in Article 224, and in any other case, until he attains the age of sixty two years Provided that

- A Judge may, by writing under his hand addressed to the President,

resign his office;

- A Judge may be removed from his office by the President in the manner provided in clause (4) of Article 124 for the removal of a Judge of the Supreme Court;

- The office of a Judge shall be vacated by his being appointed by the President to be a Judge of the Supreme Court or by his being transferred by the President to any other High Court within the territory of India.

4.26 EESL & DNRE, GOA MoU

Energy Efficiency Services Limited (EESL), a joint venture of PSUs under the Ministry of Power and Department of New & Renewable Energy (DNRE), Goa, have signed a memorandum of understanding to discuss rolling out of India's first Convergence Project in the State.

- Under the MoU, EESL and DNRE will carry-out the feasibility studies and subsequent implementation of decentralized solar energy projects.

- EESL shall implement the solar energy projects, establishment of 100 MW of decentralized ground mounted Solar Power projects on government lands to be used for agricultural pumping, replace approximately 6,300 agricultural pumps with BEE star rated energy efficient pumps and distribute approximately 16 Lakh LED bulbs for rural domestic households.

Highlights

- The MOU signed between EESL and Government of Goa today in some sense marks beginning of fresh green revolution.

- When we started the PM- KUSUM, this is what was in our mind to restart fresh green revolution in agriculture sector.

- This model is expected to be adopted by other states as this will reduces losses in terms of expenditure on water for farm sector runs into tens of thousands crore rupees in several States.

- That pre-empts state spending on health, education, and other important sectors.

- Together with new Roof Top Solar Scheme this will prove to be win win for farmers and States and help them turn into green States.

- The project will accrue savings of INR 2,574 crores to the State over the period of 25 years, while improving the health of DISCOMs and providing cleaner power.

- This project will provide clean day time electricity to farmers as well as energy efficient pump sets which would reduce the power consumption as well as T&D losses associated with transmitting power to agriculture and rural feeder networks.

4.27 Chhath Puja or Chhath Parva – Celebration

- Several parts of India are all set to celebrate Chhath Puja or Chhath Parva.

- It is a four-day festival mostly celebrated by people from Uttar Pradesh, Jharkhand and Bihar.

- This festival starts with Kartik Shukla Chaturthi and ends with Kartik Shukla Saptami.

- This year, the main celebration will take place on the third day, November 20, where when devotees will offer "argha" to the Sun God at sunset and offer prasad.

- On the fourth and last day, devotees pray before sunrise and end their fast by eating special prasad and delicacies.

- Chhath Puja is celebrated on the sixth day of the Kartik month of the Hindu calendar, which also happens to be the fourth day after Diwali.

- The puja for Chhath this year will be performed on Friday, November 20.

- As per the Hindu tradition, devotees worship the Sun God to express

gratitude and seek their blessings.

- Along with the Sun God, people also make offerings to Chhath Maiya, commonly known as Usha, the wife of the Sun God.

- According to Vedic astrology, Chhathi Maiya or Chhathi Mata protects the offspring and provides longevity to them.

- Many people observe the ritualistic Chhath fast -they consume only one whole vegetarian meal in the day.

- In the last few years, Chhath Puja has got a special significance as a folk festival.

- This is the reason why the festival is celebrated with great pomp and show.

4.28 Vatayan Lifetime Achievement Award at a virtual ceremony

Union Education Minister Shri Ramesh Pokhriyal 'Nishank' was conferred with the Vatayan Lifetime Achievement Award at a virtual ceremony.

- Dr. Amish Tripathi, renowned writer, Director of the Nehru Center, London was the special guest on the occasion.

- This award is the another in the list of many other national and international awards and honours conferred to the Minister for writing, poetry and other literary works.

- Shri Pokhriyal has earlier received several awards in the field of literature and administration including Sahitya Bharati Award by the then Prime Minister Shri Atal Bihari Vajpayee, Sahitya Gaurav Samman by Former President Dr. A.P.J. Abdul Kalam, Bharat Gaurav Samman, Good Governance Award by Dubai Government, outstanding Achievement Award by Global Organization of Person of Indian Origin by Mauritius, awarded in Ukraine in the area of environmental protection, among others.

- Shri Nishank is also honoured with "Himal Gaurav Samman" by Nepal

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- The German version 'nureinWunsch" of Shri Nishank's story collection 'Just a Desire', is published in Afro Asian Institute, Hamburg.

- His 'Sparsh Ganga' initiative was included in Mauritius school curriculum.

- He is actively associated with various Social activities such as unique drive of `Swaran Ganga.

- Shri Pokhriyal has also organised Cultural Programmes worldwide as a Minister of Culture in Uttar Pradesh.

- Vatayan International Awards given by the Vatayan-UK organization in London, honours poets, writers and artists for their exemplary work in their respective fields.

- Earlier many eminent personalities like Prasoon Joshi, Javed Akhtar have been awarded the Vatayan Awards for their literary contribution.

- The programme was broadcast live on the Facebook of Vaishvik Hindi Parivar, eminent Hindi scholars, artists and media personnel from around the world, were present.

4.29 India International Cherry Blossom Festival

India International Cherry Blossom Festival, the calendar event of Meghalaya which attracts record number of tourists annually in Shillong, has been cancelled this year in the wake of COVID-19 pandemic.

- The capital, Shillong hosts the only Cherry Blossoms festival in India.

- These beautiful flowers can be spotted across Meghalaya during this time of the year.

- It is expected that the flowers will continue to bloom till the end of November.

- But people of Meghalaya celebrate festivals through virtual mode.

- The beautiful hill station Shillong in Meghalaya has turned pink with

blooming cherry blossoms.

- Every year, the Cherry Blossom Festival in Shillong hosts a plethora of events like fitness art, fashion show, rock concerts and much more.

- This time, the pomp and fervour of the festival will be missed.

- Due to the COVID -19 pandemic, the Cherry Blossom Festival held annually in Shillong has been cancelled this year.

- But, the wispy pink-and-white blooms that adorn the town's trees around this time of the year have kept their promise, bringing cheer to the people.

- Local tourist is happy to see blooming cherry flowers and they are sharing the latest pictures and videos about cherry blossom on a social media platform for friends and relatives.

- Everyone hopes if everything will be normal that they will celebrate the cherry blossom festival next year.

4.30 Chandigarh as aUnion Territory?

- Earlier this month, Haryana Deputy Chief Minister said it would be better if both Haryana and Punjab agreed on Chandigarh as a Union Territory and make their independent capitals and Benches of High Courts.

- On November 1, Haryana was celebrating 54 years of its formation as a separate state after it was carved out of undivided Punjab in 1966.

- The statement once again brought into focus the long-simmering dispute between the two states over one of India's most modern cities. But Punjab has always refuted Haryana's claims over Chandigarh.

- Chandigarh was planned to replace Lahore, the capital of erstwhile

Punjab, which became part of Pakistan during the Partition.

- In March 1948, the Government of (India's) Punjab, in consultation with the Centre, approved the area of the foothills of the Shivaliks as the site for the new capital.

- From 1952 to 1966 (till Haryana was carved out of Punjab), Chandigarh remained the capital of Punjab.

- At the time of reorganisation of Punjab in 1966, the city assumed the unique distinction of being the capital of both Punjab and Haryana, even as it was declared a union territory and was placed under the direct control of the Centre.

- The properties in Chandigarh were to be divided in 60:40 ratio in favour of Punjab.

- The-then Prime Minister Indira Gandhi had announced that Haryana, in due course, would have its own capital and Chandigarh would go to Punjab.

- As per documents submitted in the Lok Sabha, the Centre had even issued a formal communication is this regard on January 29, 1970, almost three years after Haryana came into being.

- "After very carefully weighing the claims of the two states, the capital project area of Chandigarh should, as a whole, go to Punjab," says the note.

- Again, in 1985, under the Rajiv-Longowal accord, Chandigarh was to be handed over to Punjab on January 26, 1986, but the Rajiv Gandhi government withdrew at the last minute.

4.31 Shalya and Shalakya

- Central Council of Indian Medicine (CCIM), the statutory body that

regulates the Indian Medical systems of Ayurveda, Siddha, Sowa-Rigpa and Unani Medicine has issued a notification to streamline some of the provisions of the regulations concerning Post Graduate Ayurveda Education.

- The notification has added clarity and definition.

- The notification relates to the Shalya and Shalakya streams of Post Graduate Education in Ayurveda.

- It specifies a total of 58 surgical procedures that PG scholars of these streams need to be practically trained in so as to enable them to independently perform the said activities after completion of their PG Degree.

- Shalya and Shalakya are independent Departments in Ayurveda colleges, performing such surgical procedures.

- The Ministry categorically said, it has not received any comments or objections about the use of modern terminology in the said notification, and is hence not aware of any such controversy.

- It is, however, clarified that all scientific advances including standardized terminologies are inheritances of the entire mankind.

- No individual or group has monopoly over these terminologies.

- The modern terminologies in the field of medicine are not modern from a temporal perspective, but are derived substantially from ancient languages like Greek, Latin and even Sanskrit, and later languages like Arabic.

- The purpose of all modern scientific terminology is to facilitate effective communication and correspondence among the different stake-holders.

- The stake-holders of the instant notification include not just the Ayurveda practitioners but also professionals of other stake-holding disciplines like the medico-legal, health IT, insurance as well as the members of the public.

- The question of mixing Ayurveda with Conventional (Modern) Medicine

does not arise here as CCIM is deeply committed to maintaining the authenticity of Indian systems of medicine.

4.32 National Crisis Management Committee

Cabinet Secretary Rajiv Gauba chaired a meeting of the National Crisis Management Committee (NCMC) to review the status of impending cyclone with the Chief Secretaries of Andhra Pradesh, Tamil Nadu and Puducherry through video conferencing.

- The Chief Secretaries of Andhra Pradesh, Tamil Nadu and Puducherry briefed the NCMC about their preparedness.

- They mentioned that the authorities are fully prepared to meet any eventuality.

- They also informed about the coordination with the NDRF and other agencies to meet this challenge.

- At the national level, Cabinet Committee on Security (CCS) and National Crisis Management Committee (NCMC) are the key committees involved in the top-level decision-making wrt Disaster Management (DM).

- It deals with major crisis which have serious or national ramifications.

- Cabinet Secretary is the Chair person.

4.33 MT Anasthasia-1

- The Indian Coast Guard is towing a drifting tanker MT Anasthasia-1 away from the Katchall island, near the bio-sensitive ecology of pristine Nicobar Islands.

- In a sea-air coordinated operation, the Coast Guard commenced towing the tanker, after its owners failed to provide a tug for assisting their drifting vessel, carrying 910 MT of bunker fuel.
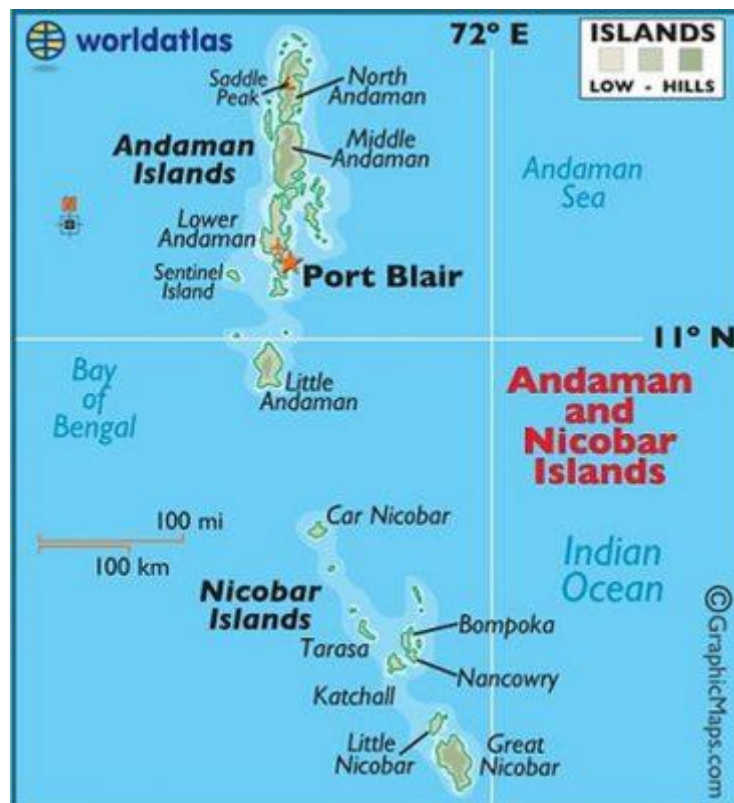
- The vessel with 24 crew onboard was en route to Dubai and has been facing a total power failure since November 19.

- According to the Coast Guard, the vessel was drifting dangerously towards Katchall Island with the risk of running aground and posing dangers of oil spillage off Nicobar Islands.

- On receipt of information by Maritime Rescue Co-Ordination Centre (MRCC) Port Blair, NAVAREA warning (Navigational warnings were issued to ensure safety of lives at sea) and International safety Net was activated for alerting merchant mariners.

- After an ICG boat from Campbell Bay was rushed for assessment of the situation, ICG Multi-Mission Vessel Vishwast on routine surveillance off the Nicobar Islands was also pressed into action.

- An ICG boarding team embarked the adrift tanker and repaired the Fleet Broadband Communication equipment, got the Automatic Identification System operational and prepared the anchor chain cables of the vessel for manual lowering.

- Considering the grave situation, despite no response from the vessel's owners, ICG ship swiftly commenced towing of the 243-meter long vessel to safe waters.

- It is significant that the ICG vessel is towing a tanker measuring nearly 2.5 times its own size and carrying nearly 1000MT of fuel.

4.34 UMANG

To mark the occasion of 3 years of UMANG and 2000+ services milestone, an online conference was organized under the chairmanship of Shri Ravi Shankar Prasad, Union Minister for Electronics and Information Technology, Communications and Law & Justice.

- Key partners of UMANG – Employee Provident Fund Organization, Employee State Insurance Corporation, Ministries of External Affairs, Health, NPPA, DAR&PG, Education, Agriculture, Animal Husbandry, Staff Selection Commission (SSC) and senior Officers from the Cabinet Secretariat were also present during the conference.

- In coordination with Ministry of External Affairs, UMANG's international version was launched by Shri Ravi Shankar Prasad during the conference for select countries that include USA, UK, Canada, Australia, UAE, Netherlands, Singapore, Australia and New Zealand.

- It will help Indian international students, NRIs and Indian tourists abroad, to avail Government of India services, anytime.

- It will also help in taking India to the world through 'Indian Culture' services available on UMANG and create interest amongst foreign tourists to visit India.

- The international version of the UMANG App can be downloaded by going to the Play Store of specific countries.

- Expressing his thoughts on this occasion, the Minister said that Indians globally where keen to connect with India and maintain their contact with their roots and hence Government services available on UMANG

must play a very proactive role for NRIs abroad.

- He added that the cultural portfolio available on UMANG will be extremely useful for Indians abroad to pass on information on Indian culture and heritage to the next generation.

4.35 3rd Global Renewable Energy Investors Meet and Expo

- Prime Minister Narendra Modi will virtually inaugurate the 3rd Global Renewable Energy Investors Meet and Expo (RE-INVEST 2020).

- During the three-day virtual conference, all the leading companies will display their latest technological development in the field of renewable energy and discuss various options available for energy transition.

- Several world leaders, Energy Ministers of 75 countries and 200 eminent speakers will take part in the event.

- The summit is organised by the Ministry of New and Renewable Energy.

- It aims to accelerate the worldwide effort to scale up development and deployment of renewable energy and connect the global investment community with Indian energy stakeholders.

- The theme for RE-Invest 2020 is 'Innovations for Sustainable Energy Transition'.

4.36 National Science Film Festival of India (NSFFI)

- National Science Film Festival of India (NSFFI) is a flagship event of Vigyan Prasar, Department of Science & Technology, Govt. of India.

- The festival offers a unique platform to showcase the science films made by professionals, amateur and student filmmakers under various themes.

- National Science Film Festival of India (NSFFI) aims to celebrate the science outreach through cinema.

- NSFFI is India's first of its kind of film festival where documentaries

and short films on popular science, technology, health & environmental issues are being screened.

- It is a national level competition of science films being organised annually.

- Vigyan Prasar, an autonomous agency under the Department of Science and Technology, Govt. of India.

- The national science film festival 2020 is being jointly by organized Vigyan Prasar, and the Tripura State Council of Science and Technology, Govt. of Tripura.

- It has been organizing this festival as a part of its science popularization endeavour.

- The tenth edition of prestigious science film festival got off in a virtual mode.

- These include films in Hindi, English, Urdu, Malayalam, Kashmiri, Bengali, Marathi, Punjabi and Tamil languages.

4.37 e-VIN

The government is using eVIN – Electronic Vaccine Intelligence Network in association with the United Nations Development Program (UNDP) to identify primary beneficiaries and vaccine distribution networks.

- E-VIN is an indigenously developed technology that digitizes vaccine stocks and monitors the temperature of the cold chain through a smartphone application.

- It was first launched across 12 states in 2015 to support better vaccine logistics management at cold chain points.

- It supports the central government's Universal Immunization Programme by providing real-time information on vaccine stocks and flows, and storage temperatures across all cold chain points across states and UTs.

- eVIN combines state-of-the-art technology, a strong IT infrastructure and trained human resource to enable real-time monitoring of stock and

storage temperature of the vaccines kept in multiple locations across the country.

- At present, 23,507 cold chain points across 585 districts of 22 States and 2 UTs routinely use the eVIN technology for efficient vaccine logistics management.

4.38 Lok Virasat

- Films Division (FD) is organizing Lok Virasat, a festival of films on folk art and painting starting from November 27, 2020.

- An exclusive bouquet of documentary films on folk art and paintings – Lok Virasat – is being showcased, between November 27–29, 2020 on the FD website and YouTube channel.

- The films being streamed include:

  - The Kingdom of God , on the great Indian heritage of art and culture with focus on various folk art traditions,

  - Bhavai – Fading Memories, a film on Bhavai – a folk art of Gujarat,

  - Naman – Khele, a film on the ancient folk art performed in Ratnagiri, Maharashtra,

  - Sahi Jata, The Fusion Cult, a film on the unique fusion of muscle and music in the form of folk art on the back-drop of the ancient Orissa town of Puri.

  - Therukoothu : Dancing For Life , a film depicting the age old Tamil folk art.

4.39 Government recognition to Archery Association of India

Ministry of Youth Affairs & Sports has restored the government recognition to

Archery Association of India as a National Sports Federation for promotion and regulation of Archery Sport in the country.

- The Government recognition of AAI was withdrawn eight years back on account of failure to conduct its elections in accordance with the National Sports Development Code of India, 2011 (Sports Code).

- Government recognition of AAI will be valid for one year.

- This comes after AAI's independent elections and revocation of suspension by the World Archery and Indian Olympic Association.

4.40 Draft of the Merchant Shipping Bill, 2020

- The Ministry of Ports, Shipping and Waterways has come up with a draft of the Merchant Shipping Bill, 2020 for public consultation.

- It has been a priority of the government of India to replace all archaic colonial laws with modern and contemporary International laws with the active participation of people to enhance transparency in the governance.

- For the same, the Ministry has also issued two draft Bills for public consultation, namely 'Aids to Navigation Bill 2020' and 'Coastal Shipping Bill 2020'.

- Moreover, Major Port Authorities Bill 2020 is also under consideration.

- All these Bills are going to generate sweeping waves in the maritime scenario moving India towards a fully developed maritime economy.

- Repeal and replace: The Bill aims to repeal and replace the Merchant Shipping Act, 1958 and the Coasting Vessels Act, 1838.

- Incorporate the best practices: It has the primary aim of promoting the growth of the Indian shipping industry by incorporating the best practices

adopted by other advanced countries like the U.S., Japan, U.K., Singapore and Australia.

- Compliant with international laws: The Bill incorporates all up-to-date IMO Conventions or protocols, to which India is a party.

- Ensure safety and security: The Bill incorporates adequate provisions to ensure the safety and security of vessels, safety of life at sea, prevent marine pollution, provide for maritime liabilities and compensations.

4.41 Why have the protests against Bruresettlement in Tripura flared up?

Recently, parts of north **Tripura** have witnessed violent protests over the **proposed resettlement of Bru tribals.**

- **Bru or Reang** is a community **indigenous to Northeast India,** living mostly in **Tripura, Mizoram and Assam.** In Tripura, they are recognised as a **Particularly Vulnerable Tribal Group.**

- In Mizoram, they have been targeted by groups that do not consider them indigenous to the state.

- In 1997, following **ethnic clashes,** nearly **37,000 Brus** fled **Mamit, Kolasib and Lunglei districts of Mizoram** and were accommodated in **relief camps in Tripura.**

- Since then, **5,000** have **returned to Mizoram** in eight phases of repatriation, while **32,000** still live in six relief camps in **North Tripura.**

- In January 2020, a **quadrilateral agreement** was signed by the Centre, the two state governments and Bru representatives to allow the **remaining 32,000 to permanently settle in Tripura.**

2020 Agreement

- After the agreement was made in January 2020, the state has planned **12**

resettlement spots across six districts with 300 families each.

- The Centre has announced a **special development project with funding of Rs. 600 crore.**

    - Each resettled family will get an estimated 0.03 acres of land for building a home, **Rs. 1.5 lakh as housing assistance,** and **Rs. 4 lakh as a one-time cash** benefit for sustenance, a **monthly allowance of Rs. 5,000** and **free rations for two years** from the date of resettlement.

Reason for the Protest

- The 2020 agreement led to protests from **Bengali and Mizo** groups in Tripura. They claim that settling thousands of migrants permanently in Kanchanpur sub-division of North Tripura district would lead to **demographic imbalance, exert pressure on local resources and potentially lead to law and order problems.**

- They alleged that 650 **Bengali families** from around Kanchanpur and 81 **Mizo families** from Jampui Hill range, who **fled due to "atrocities" by Brus,** were **yet to be resettled** two decades on.

Conditions of the Brus

- They are in fear and uncertainty as they suffer an **economic blockade** due to these protests.

- They haven't received foodgrains as per their **relief package** this month and if the protest continues, their **condition will deteriorate** further.

POLITICAL ISSUES, HUMAN RIGHTS AND GOVERNANCE
5.1 Rural Development Fund – Withheld

The Union Government's decision to withhold rural development fee from Punjab, and letters asking the Punjab Government to explain its utilisation of the Rural Development

Fund (RDF) that it gets largely from the Food Corporation of India (FCI) has enraged the state government.

RDF is the **3 per cent cess levied on the purchase or sale of agricultural produce** under the Rural Development Fund Act, 1987 which is executed by Punjab Rural Development Board (PRDB) with the Chief Minister as its chairman.

Rural Development Board (RDB)

- The RDB was incorporated in April 1987 under Rural Development Act, 1987 and is mandated with the promotion of better agriculture, and granting relief for the loss and damage to agricultural produce.

- It also provides the facility of streets lights, dharamshalas, panchayat ghars, canals and drains, government health infrastructure, drinking water, sanitation, and government educational institutions in rural areas.

From where does Punjab get this fund and what is it used for?

- It comes mainly from central government's purchase agency, Food Corporation of India, which buys around 13 million tonnes of wheat and 16 million tonnes of paddy every year.

- Usually Punjab gets Rs 1,750 crore every year — Rs 1,000 crore as 3 per cent RDF for procuring paddy and the rest for wheat. This year, some estimates had put the total at Rs 1,850 crore.

- This fund is supposed to be used for the creation and maintenance of rural infrastructure in and outside mandis. But there have been charges in the past that it was diverted by the state for other purposes.

Why has the central government suspended this fund?

The central government, in a letter from the Union Ministry of Consumer Affairs, Food and Public Distribution, has observed that the fund is being diverted, and has asked the state government to explain how it is utilising this money. It has also not made any provision for this fund in the cost sheet that it has sent to the state.

5.2 The Miyas of Assam, and their char-chapori culture

Recently, a proposed 'Miya Museum' reflecting the "culture and heritage of the people

living in char-chaporis" has stirred up a controversy in Assam.

- The '*Miya*' community comprises **descendants of Muslim migrants from East Bengal (now Bangladesh) to Assam**. They came to be referred to as '**Miyas**', often in a derogatory manner.

- The community migrated in several waves — starting with the British annexation of Assam in 1826, and continuing into Partition and the 1971 Bangladesh Liberation War — and have resulted in changes in demographic composition of the region.

- Years of discontent among the indigenous people led to the six-year-long (1979-85) anti-foreigner Assam Agitation to weed out the "illegal immigrant", who was perceived as trying to take over jobs, language and culture of the indigenous population.

Char-Chaporis

- A **char** is **a floating island** while **chaporis** are **low-lying flood-prone riverbanks**. They keep changing shapes — **a char can become a chapori, or vice versa, depending on the push and pull of the Brahmaputra**.

- The website of the Directorate of Char Areas Development puts the population of chars at 24.90 lakh as per a socio-economic survey in 2002-03. The population is bound to have increased since then.

- Prone to floods and erosion, these areas are marked by **low development indices**. 80% of the Char population lives below poverty line. A UNDP Assam Human Development report from 2014 describes the char areas as suffering from "communication deficits, lack of adequate schooling facilities beyond primary, girl child marriage, poverty and illiteracy".

- While Bengali-origin Muslims primarily occupy these islands, **other communities such as Misings, Deoris, Kocharis, Nepalis also live here**. In popular imagination, however, chars have become synonymous to the Bengali-speaking Muslims of dubious nationality.

5.3 Anti-conversion law

Haryana Home Minister Anil Vij said that his government is considering a law against forced religious conversions and has sought information about such a law already in force in Himachal Pradesh. Last year, the Himachal Pradesh Assembly passed the

'Freedom of Religion Bill, 2019.

What is the Himachal Pradesh anti-conversion law?

- The state had already enacted a law in 2007 which **prohibited conversion from one religion to another by force or fraud**. During the monsoon session of the assembly last year, chief minister Jai Ram Thakur introduced a more stringent version of the legislation.

- According to the Act, "*no person shall convert or attempt to convert, either directly or otherwise, any other person from one religion to another by use of misrepresentation, force, undue influence, coercion, inducement or by any fraudulent means or by marriage; nor shall any person abet or conspire such conversion*". The Act **does not cover a person re-converting to his "parent religion"**.

- It further says that **any marriage done for the sole purpose of religion conversion may be declared null and void** by a court on a petition by either party.

What happens if anyone wants to convert to any other religion?

- As per the Act, anyone who wishes to convert to any other religion will **give a declaration to the district authorities at least one month in advance,** specifying that one is doing so as per his/her "**own volition or free consent**".

- In fact, **even the religious priest who performs the conversion ceremony has to inform the authorities at least one month in advance**. The district magistrate will then **conduct an inquiry** regarding the **"intention, purpose and cause of proposed conversion"**. The conversion will be rendered illegal if the authorities are not informed in advance.

- The Act says that the **burden of proof** as to whether a religious conversion was not effected through force or fraud lies on the person so converted, or the person who has facilitated the conversion.

- All offences under the Act are **cognizable and non-bailable**. The violator can be punished with a prison term ranging from **one to five years, along with a fine**. In case the victim is a minor, woman or member of a Scheduled Caste or Tribe, the imprisonment may extend upto seven years. **Failure to declare the**

conversion in advance can also result in **an imprisonment of upto two years**.

5.4 TRAI – New norms for OSPs

Nearly a year-and-a half after the **Telecom Regulatory Authority of India had suggested relaxations of registration, submission of bank guarantee and other norms for other service providers (OSP)** in the **business process outsourcing (BPO) and information technology-enabled services (ITes)**, the Department of Telecom has eased these rules.

The new rules do away with the registration requirement for OSPs, with such BPOs that are engaged only in data work have been taken out of the category of OSPs altogether.

OSPs

- OSPs or other service providers are **companies or firms which provide secondary or tertiary services such as telemarketing, telebanking or telemedicine** for various companies, banks or hospital chains, respectively.

- As computers made their foray into the Indian information technology space, a number of such OSPs, which were either voice or non-voice based, came into the market. The sector **required minimal investment but gave great returns in business**, which prompted a large number of individuals and companies to float other service providing firms.

- Since most of these firms **used leased telephone lines, which in turn used the telecom spectrum auctioned by the Department of Telecommunications (DoT), the new telecom policy of 1999 suggested that all OSPs register themselves** so that the government could keep a check on the usage of its resources.

- Further, **the registration was also made mandatory to ensure that firms did not establish fake OSPs** which swindled customers under the garb of providing telebanking and other such sensitive services.

Registration norms for OSPs

- To start services in India, **OSPs had to register themselves with the DoT and declare to the government as to how many employees were working**

in the firm as well as the area of service it was engaged in. For example, if a firm wished to provide telebanking services, it had to tell the government the number of people working with the BPO and the state that firms catered to.

- Further, **the OSPs also have to declare whether they were providing services to domestic firms or international firms**, and the nature of services being offered. The OSPs, which had to register themselves with the Ministry of Corporate Affairs also had to provide a detailed network diagram along with the details of the lines they had leased from an authorised and licensed telecom service provider.

- In addition to all these norms, **OSPs also had to furnish a bank guarantee to the DoT, which was kept as a security measure**, and could be forfeited if the firm did not adhere strictly to the guidelines.

Why have these guidelines been changed?

- In order to prevent the spread of Covid-19 pandemic, the government in March decided to go for a complete nationwide shutdown, in which all companies, barring those providing essential services, were asked to shut shop temporarily. Owing to this, the OSPs, like many other firms were unable to provide services to their clients such as banks and hospitals, which were under the category of essential services.

- In order to facilitate work-from-home for such OSPs, the DoT on March 23, came out with a new format in which it sought the details of the OSP, their registration number and name of the telecom service provider again. Along with that, the DoT also sought the details of its employees working from home, their physical addresses, and the static internet protocol (IP) address from where the login would be made.

- Subsequently, on April 15, to further ease the work-from-home process for OSPs, the DoT released new guidelines, under which it said that OSPs no longer had to make a security deposit or submit the work from home agreement it had with its employees. These rules were first extended till July 31, and later till December 31 this year.

- On November 5, **the DoT completely changed the guidelines and allowed permanent work from home or work from anywhere in India for OSP employees**. Such employees working either from home or from remote locations would be treated as an extended agent or remote agent of the OSP.

The new guidelines also do away with the need to furnish any bank guarantees for any of their location in India.

How will the new guidelines help OSPs?

- The guidelines, released on November 5, will **make it easier for BPOs and ITes firms in many ways, such as cutting down on the cost of location, rent for premises and other ancillary costs such as electricity and internet bills**.

- With the government recognising OSP employees as extended or remote agent, companies providing such services will **no longer have to carry the additional compliance burden of providing the details of all such employees to the DoT**. The doing away of registration norms will also mean that there will be **no renewal of such licenses and therefore will invite foreign companies to set up or expand their other service providing units in India**.

- An important change, which takes **data-based OSPs completely out of the ambit of BPOs would mean that such firms can function like any other service firm without the strict and cumbersome guidelines such as presence of agent on location**. This change, in line with the norms of countries in the West can also allow employees to opt for freelancing for more than one company while working from home, thereby attracting more workers in the sector.

5.5 DISCOMs UNDER Energy Conservation Act, 2001

The Ministry of Power has issued notification to cover all the Electricity Distribution Companies (DISCOMs) under the purview of the Electricity Conservation Act, 2001.

After this notification, all the DISCOMs will be governed under the various provisions of EC Act, such as Appointment of Energy Manager, Energy Accounting & Auditing, identification of Energy Losses Category wise, Implementation of energy conservation & efficiency measures etc. for each DISCOMs. Earlier, the DISCOMs whose annual energy losses were equal to or above 1000 MU (Million Units) were covered under the EC Act. Now with this notification, the number of DISCOMs covered under the EC Act will increase from 44 to 102.

Impact

- This decision will f**acilitate Energy Accounting & Auditing as mandatory activity** for all the DISCOMs, leading to the actions towards reducing losses and increase profitability of DISCOMs.

- The amendment is expected to **help DISCOMs to monitor their performance parameters and bring in transparency in the Distribution sector** through professional inputs.

- It will also **assist in developing projects for reducing the electricity losses by DISCOMs** and implementing effective solutions.

- The amendment is expected to **improve the financial state of the DISCOMs**.

- The quarterly data of these DISCOMs will be collected and monitored by the government to suggest measures for **increasing the efficiency and reduce the energy loss**.

- This move is expected to gradually become more effective if extended upto the level of end consumers.

Energy Conservation Act, 2001

The Act empowers the Central Government and, in some instances, State Governments to –

- **specify energy consumption standards** for notified equipment and appliances;

- direct mandatory **display of label on notified equipment and appliances**;

- prohibit manufacture, sale, purchase and import of notified equipment and appliances not conforming to energy consumption standards;

- notify energy intensive industries, other establishments, and commercial buildings as designated consumers;

- **establish and prescribe energy consumption norms** and standards for designated consumers;

- **prescribe energy conservation building codes** for efficient use of energy and its conservation in new commercial buildings having a connected load of 500 kW or a contract demand of 600 kVA and above;

State Governments may

- amend the energy conservation building codes prepared by the Central Government to suit regional and local climatic conditions;

- direct every owners or occupier of a new commercial building or building complex being a designated consumer to comply with the provisions of energy conservation building codes;

- direct, if considered necessary for efficient use of energy and its conservation, any designated consumer to get energy audit conducted by an accredited energy auditor in such manner and at such intervals of time as may be specified;

Bureau of Energy Efficiency

- Under the provisions of the **Energy Conservation Act, 2001**, Bureau of Energy Efficiency has been established with effect from 1st March, 2002 by merging the **erstwhile Energy Management Centre**, a society under the Ministry of Power.

- The Bureau would be **responsible for spearheading the improvement of energy efficiency** of the economy through various regulatory and promotional instruments.

- The mission of the Bureau of Energy Efficiency is to **develop policy and strategies with a thrust on self-regulation and market principles**, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of **reducing energy intensity of the Indian economy**. This will be achieved with **active participation of all stake holders**, resulting in accelerated and sustained adoption of energy efficiency in all sectors of the economy.

- The primary objective of BEE is to **reduce energy intensity in the Indian economy through adoption of result oriented approach**.

5.6 Section 294 – Obscenity

Recently, a model-actor was booked for 'obscenity' for running nude on a beach in Goa. An FIR was filed against him under Section 294 (obscenity) of the Indian Penal Code.

- The law is one from colonial times, with roots in the Victorian era. Section 294 of the IPC deals with obscenity, along with Section 292 and 293. The expression 'obscenity', or what is 'obscene' is **not clearly defined in the IPC**.

- In fact, Section 292 in its current form didn't exist in 1860, when the code was framed. It was **inserted in 1925**, so that makes it colonial, but yes with roots in the Victorian sense of puritanical existence, where the British were all suited and booted, and hence were not very comfortable with showing skin. There were fixed notions of what was 'moral' and 'acceptable'.

Does the Section define obscenity?

- It's not defined in Section 294, but in 292, which provides for "*Sale, etc of obscene books, etc*". The form in which we find the provision was the result of amendments to the IPC in 1925. This was a time when substantial print publication was being circulated in Europe, also much of this had started to find its way into India. In fact, there is good authority to suggest that by the 1880s India was one of the largest markets for British books.

- There was also the **issue of French novels such as those by M. Zola**, which were being translated into English and vernacular languages. The British were somewhat concerned about such **'immoral' and 'filthy' material being readily available to the native youth**. So, the government introduced a new **Obscene Publications Bill in 1924, which led to the insertion of Section 292 in the IPC**.

- The provision says "a book, a pamphlet, paper, writing, drawing, painting, representation figure or other object shall be deemed to be obscene if it is lascivious or appeals to the prurient interest."

- Additionally, all material which tends "to deprave and corrupt person" falls within the vice of the provision. It essentially outlaws selling, distributing and letting to hire, importing or exporting material, making a profit out of it commercially, or advertising it or making it known by any means at large. Section 294 (Obscene acts and songs in a public place) is of earlier origin, which has been on the statute book since 1895.

How 'obscenity' is defined then?

- The courts have adopted tests to determine whether a certain material is obscene or not. It started with the **Hicklin test** (adopted from the 1868 English

case – Regina v. Hicklin), which **allows for scenes to be looked at sans context**. In other words, **the test permits one to look at the allegedly obscene material in a vacuum, which isn't ideal**. For example, if a rape scene in a cinematograph film has the tendency to deprave and corrupt those whose minds are open to 'immoral' influences – the material would qualify as obscene, i.e. regardless of context or artistic or literary merit.

- Publications that are proved to be justified as being for public good or **in the interest of science, literature, art or learning are excepted from Section 292**. So is material kept or used for **religious purposes**. The latter exception was a consequence of the realisation that was mandated on account of the Hindu mythological depictions of gods, goddesses and figures, often in the nude.

5.7 OTT Platforms under Ministry of Information and Broadcasting

The government has brought video streaming over-the-top (OTT) platforms such as Netflix, Amazon's Prime Video, Hotstar, and others under the ambit of the **Ministry of Information and Broadcasting. These platforms were so far under the purview of the Ministry of Electronics and Information Technology.**

With a market size of nearly Rs 500 crore at the end of March 2019, the online video streaming platforms may become a Rs 4000-crore revenue market by the end of 2025, according to reports. At the end of 2019, India had as many as 17 crore OTT platform users.

What are OTT platforms?

- OTT, or over-the-top platforms, are **audio and video hosting and streaming services which started out as content hosting platforms,** but soon branched out into the **production and release of short movies, feature films, documentaries and web-series** themselves.

- These platforms offer a range of content and **use artificial intelligence to suggest users the content they are likely to view based on their past viewership on the platform**. Most OTT platforms generally offer some content for free and charge a monthly subscription fee for premium content which is generally unavailable elsewhere.

- The premium content is usually **produced and marketed by the OTT platform themselves**, in association with established production houses which historically have made feature films.

Laws regulating OTT platforms –

- So far in India, there are no laws or rules regulating OTT platforms as it is a relatively new medium of entertainment. Unlike television, print or radio, which follow guidelines released by governments, OTT platforms, classified as digital media or social media, had little to no regulation on the choice of content they offered, the subscription rates, certification for adult movies and others.

- Following pressure to regulate the content being made available on these streaming platforms, the **Internet and Mobile Association of India (IAMAI), a representative body of the OTT platforms had proposed a self-regulatory model**.

- The Online Curated Content Providers or OCCPs had also proposed a Digital Curated Content Complaints Council along with the **self-regulatory mechanism as a part of its proposed two-tier structure**. The proposal, however, was **shot down by the Ministry of Information and Broadcasting**, which will now oversee these platforms.

Impact –

- With the government deciding to bring films and audio-visual programmes made available by online content providers" as well as "news and current affairs content on online platforms", the first challenge before the OTT platforms would be **keeping a check on their content.**

- The central government's move to bring the OTT platforms under the I&B Ministry could also mean that **these platforms would have to apply for certification and approval of the content they wish to stream.** This in itself could **give rise to many conflicts as most OTT platforms have content that could otherwise be censored by the certification boards in India**.

- OTT platforms are likely to resist any plans to censor the content being provided and streamed by them as these platforms have often chosen to produce movies and documentaries on politically sensitive but relevant topics. It will also have to be seen as to what guidelines, if any, does the I&B ministry

put in place for regulating these OTT platforms.

5.8 Contempt of Court against stand-up comedian Kunal Kamra

Attorney General K K Venugopal has given his consent for the initiation of criminal contempt proceedings against stand-up comedian Kunal Kamra for his tweets following the Supreme Court's decision to grant interim bail to television anchor Arnab Goswami.

'Contempt of court'

- **Contempt of court**, often referred to simply as "**contempt**", is the offence of being disobedient to or disrespectful toward a court of law and its officers in the form of behaviour that opposes or defies the authority, justice and dignity of the court.

- **Article 129 and 215 of the Constitution of India** empowers the Supreme Court and High Court respectively to punish people for their respective contempt. Article 19 that empowers the citizens with freedom of speech has put a reasonable restriction over their speech with contempt of court added as a reasonable restriction on the same.

- In India contempt of court is of two types –

    - **Civil contempt** – Under Section 2(b) of the Contempt of Courts Act of 1971, civil contempt has been defined as wilful disobedience to any judgment, decree, direction, order, writ or other process of a court or wilful breach of an undertaking given to a court.

    - **Criminal contempt** – Under Section 2(c) of the Contempt of Courts Act of 1971, criminal contempt has been defined as the publication (whether by words, spoken or written, or by signs, or by visible representation, or otherwise) of any matter or the doing of any other act whatsoever which –

        - Scandalises or tends to scandalise, or lowers or tends to lower the authority of, any court, or

        - Prejudices, or interferes or tends to interfere with the due course of any judicial proceeding, or

        - Interferes or tends to interfere with, or obstructs or tends to

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obstruct, the administration of justice in any other manner.

Why Attorney General's consent is required?

Subsection 1 of Section 15 (Cognisance of criminal contempt in other cases) of **The Contempt of Courts Act, 1971** reads: "*In the case of a criminal contempt, other than a contempt referred to in Section 14 ("Procedure where contempt is in the face of the Supreme Court or a High Court"), the Supreme Court or the High Court may take action on its own motion or on a motion made by (a) the Advocate-General, or (b) any other person, with the consent in writing of the Advocate-General…*".

Contempt of court

- While the apex court has made the application of the sedition law subject to certain conditions, it has hardly demonstrated similar willingness to make contempt of court contingent upon, say, obstruction of justice.

- In 1998, the apex court had ruled that no Act of Parliament can take away the power of the SC and the High Courts to punish for contempt and, in 2000, in **T Sudhakar Prasad,** it ruled that the powers of contempt are inherent in nature and the Contempt of Court Act is merely in addition to the Articles 129 and 215 of the Constitution.

- It is true that a strong judiciary, one that is not maligned simply by pleading freedom of speech, is vital to a democracy. But, the SC itself, in **Shreya Singhal (2015)**, had nuanced what freedom of speech meant in the context of social media.

- Besides, while the **274th report of the Law Commission** notes that "*attacks on the personal character of a judge is* "*punishable contempt*", it also says that the '*very nature of the power (to determine and punish contempt) casts a sacred duty on the Courts to exercise the same with greatest care and circumspection*'.

- The SC itself, in **Baradakanta Mishra (1974)**, had laid down a litmus test for determining contempt; it should be seen if the alleged matter does wrong to the judge personally or to the public—"*the key word is 'justice', not 'judge'*".

5.9 Gupkar Declaration – ARTICLE 370

Gupkar Declaration was a joint resolution signed on August 4, 2019, at Gupkar Residence by the major political parties in Jammu and Kashmir to oppose the Centre's decision on abrogation of Article 370 which granted a special status to the erstwhile state (now a Union Territory). Gupkar Residence is the house of National Conference president Farooq Abdullah at Gupkar Road in Srinagar.

Gupkar Alliance is a political movement by parties like National Conference, Indian National Congress, Peoples Democratic Party, Communist Party of India (M), Jammu and Kashmir People's Conference and Awami National Conference. The parties issued a joint statement later on defending Article 370.

What followed the Gupkar Declaration?

A day after the joint state statement issued by the political parties of Jammu and Kashmir, the Bharatiya Janata Party (BJP)-led NDA government revoked the special status of the erstwhile state and bifurcated it into two Union territories of Jammu & Kashmir and Ladakh. The Article 35A, which guaranteed specific rights to permanent residents of the former state was also repealed. What followed was a complete lockdown in J&K, with communications within the then state blocked out. Several leaders like ex-chief ministers Omar Abdullah, Farooq Abdullah, Mehbooba Mufti, besides hundreds of their party workers, were placed under house arrest.

Gupkar Declaration II

- A year after the abrogation of Article 370, leaders from the six political parties once again met on August 22, 2020, and signed the Gupkar Declaration and resolved to adhere to the 2019 declaration.

- "We want the government of India to return to the people of the state the rights they had before August 5, 2019," Farooq Abdullah said on October 15 while announcing the formation of the alliance.

- He said **it is a constitutional battle to resolve the political problem of Jammu and Kashmir** in a peaceful manner through dialogue. "We want the political issue of the state to be resolved as quickly as possible through dialogue in a peaceful manner with all stakeholders involved in this problem."

- After the meeting, the official name — **People's Alliance for Gupkar Declaration** — was adopted on October 24, 2020. **Farooq Abdullah was unanimously elected the alliance chairperson, while Mehbooba Mufti**

serves as its vice-chairperson. Mohammed Yousuf Tarigami serves as its convenor, Hasnain Masoodi is its coordinator, and Sajjad Gani Lone is its spokesperson.

Objectives of Gupkar Declaration

The objective is to **boycott election to the Jammu and Kashmir Legislative Assembly and restore special status to Jammu and Kashmir**. People's Alliance aims to carry out talks politically with all stakeholders, particularly with the separatist leaders. The resolution had parties unanimously agreeing to unify in their efforts **to protect and defend the identity, autonomy and special status of Jammu and Kashmir.**

5.10 PM-FME Scheme – GIS One District One Product (ODOP) digital map

Union Minister of Food Processing Industries has inaugurated the **capacity building component of the Pradhan Mantri Formalisation of Micro food processing Enterprises scheme** (PM-FME Scheme) and launched the **GIS One District One Product (ODOP) digital map of India**.

PM-FME Scheme

- Launched under the Aatmanirbhar Bharat Abhiyan, the Pradhan Mantri Formalisation of Micro food processing Enterprises (PM-FME) Scheme is **a centrally sponsored scheme** aims to **enhance the competitiveness of existing individual micro-enterprises in the unorganised segment of the food processing industry** and **promote formalisation of the sector** and provide support to Farmer Producer Organisations, Self Help Groups, and Producers Cooperatives along their entire value chain.

- With an outlay of Rs. 10,000 crore over **a period of five years from 2020-21 to 2024-25**, the scheme envisions to directly assist the 2,00,000 micro food processing units for providing financial, technical, and business support for upgradation of existing micro food processing enterprises.

- The States would identify food products for districts keeping in view the existing clusters and availability of raw material. The One District One Product (ODOP) could be a perishable produce based or cereal based or a food item widely produced in an area. **E.g.** mango, potato, pickle, millet based

products, fisheries, poultry, etc.

- Existing individual micro food processing units desirous of upgrading their units can avail credit-linked capital subsidy at 35% of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit.

How will it work?

- The Scheme adopts **One District One Product (ODOP) approach** to reap benefit of scale in terms of procurement of inputs, availing common services and marketing of products.

- The **States would identify food product for a district** keeping in view the existing clusters and availability of raw material. The ODOP product could be **a perishable produce based product or cereal based products or a food product widely produced in a district** and their allied sectors. Illustrative list of such products includes mango, potato, litchi, tomato, tapioca, kinnu, bhujia, petha, papad, pickle, millet based products, fisheries, poultry, meat as well as animal feed among others.

- Preference would be given to those producing ODOP products. However, units producing other products would also be supported. **Support for common infrastructure and branding & marketing would be for ODOP products**. The Scheme also place **focus on waste to wealth products, minor forest products and Aspirational Districts**.

What will be the support?

- Existing Individual micro food processing units desirous of upgradation of their unit can avail **credit-linked capital subsidy @35%** of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit.

- Seed capital @ Rs. 40,000/- per SHG member would be provided for working capital and purchase of small tools. FPOs/ SHGs/ producer cooperatives would be provided **credit linked grant of 35%** for capital investment along the value chain.

- Support would be provided through **credit linked grant @ 35% for development of common infrastructure** including common processing facility, lab, warehouse, cold storage, packaging and incubation centre through FPOs/SHGs/cooperatives or state owned agencies or private enterprise to use

by micro units in the cluster.

- **Support for marketing & branding** would be provided to develop brands for micro units and groups with 50% grant at State or regional level which could benefit large number of micro units in clusters.

Implementation

- The Scheme places special focus on **capacity building and research**.

- **NIFTEM and IIFPT**, two academic and research institutions under MOFPI along with State Level Technical Institutions selected by the States would be provided support for training of units, product development, appropriate packaging and machinery for micro units.

- All the processes of the Scheme would take place on an MIS including applications by entrepreneurs, their processing, approval of various projects by the States and MoFPI, release of grant and other funds and monitoring of the project.

- Individual entrepreneurs and other stake holders desirous of availing assistance under the scheme may contact the State Nodal Agencies of their respective states/UTs regarding the roll out of scheme and contact points at the district level.

5.11 Mahajan Commission Report – Belgaum Dispute

Karnataka Chief Minister B S Yediyurappa condemned comments by Maharashtra Deputy CM Ajit Pawar over the border dispute between the two states as an attempt to "incite fire". Pawar sparked a controversy when he called the incorporation of Belgaum (Belagavi), Karwar and Nipani areas of Karnataka into Maharashtra a "dream" of Shiv Sena founder Balasaheb Thackeray, as he paid tributes to the leader on his eighth death anniversary.

- The erstwhile Bombay Presidency, a multilingual province, included the present-day Karnataka districts of Vijayapura, Belagavi, Dharwad and Uttara-Kannada.

- **In 1948, the Belgaum municipality requested** that the district, having a predominantly Marathi-speaking population, **be incorporated into the**

proposed Maharashtra state.

- However, the States Reorganisation Act of 1956, which divided states on linguistic and administrative lines, **made Belgaum and 10 talukas of Bombay State a part of the then Mysore State (which was renamed Karnataka in 1973**).

Mahajan Commission Report

- While demarcating borders, the **Reorganisation of States Commission** sought to include talukas with a Kannada-speaking population of more than 50 per cent in Mysore. Opponents of the region's inclusion in Mysore argued, and continue to argue, that Marathi-speakers outnumbered Kannadigas who lived there in 1956.

- In September 1957, the Bombay government echoed their demand and lodged a protest with the Centre, leading to the formation of the **Mahajan Commission** under former Chief Justice Mehr Chand Mahajan in October 1966.

- The Commission, which submitted its report in August 1967, **recommended that 264 villages be transferred to Maharashtra (which formed in 1960) and that Belgaum and 247 villages remain with Karnataka**.

- **Maharashtra rejected the report**, calling it biased and illogical, and demanded another review. Karnataka welcomed the report, and has ever since continued to press for implementation, although this has not been formally done by the Centre.

Later developments

- Maharashtra continues to claim over 814 villages along the border, as well as Belgaum city, which are currently part of Karnataka. Successive governments in Maharashtra have demanded their inclusion within the state– a claim that Karnataka contests.

- In 2004, the Maharashtra government moved the Supreme Court for a settlement of the border dispute under Article 131(b) of the Constitution, demanding 814 villages from Karnataka on the basis of the theory of village being the unit of calculation, contiguity and enumerating linguistic population in each village. The case is pending in the apex court.

5.12 Lilavati Award-2020: AICTE's Innovative education program to empower women

Union Minister of Education recently virtually launched Lilavati Award-2020: AICTE's Innovative education program to empower women.

- To treat women with 'equality and fairness' in all spheres of life, by the means of this initiative, all the stakeholders (especially the girl students) in AICTE approved institutions would get a unique opportunity.

- The opportunity is to present a solution to the prevalent issues of gender discrimination, which includes illiteracy, unemployment, economic and nutritional disparities, maternal mortality, human rights, etc.

- Also, if anyone has already made a successful effort towards making a mark in the society, in establishing women's emancipation/ empowerment at large, she/ he can showcase their efforts/ contributions.

Awards

- Theme: Women empowerment

- Objective: To create awareness about issues like sanitation, hygiene, health, nutrition, literacy, employment, technology, credit, marketing, innovation, skill development, natural resources, and rights among women.

- Covering multidisciplinary areas: Women's health, self-defense, sanitation, literacy, entrepreneurship, and legal awareness

- Significance: The program is expected to ensure the participation of women and enable them to hold higher positions in educational institutions.

5.13 A personal vehicle on a public road cannot be said to be a private zone

- The Delhi government has told the Delhi High Court that a personal vehicle on a public road cannot be said to be a private zone — rather, it

is a public space.

- The argument was given to defend its decision of making it compulsory for people to wear masks when they are traveling.

- India sees the largest number of road fatalities in the world.

- More than 1.5 lakh people lost their lives in road crashes in the country in 2018, according to government data.

- The Supreme Court in one of its ruling has defined a "public place" to mean any place to which the public has access, whether as a matter of right or not — and includes all places visited by the general public, and also includes any open space.

- The keywords are "any place to which the public have access", which phrase is further qualified by the phrase "whether as a matter of right or not", the court noted.

- When a private vehicle is passing through a public road it cannot be accepted that the public has no access.

- It is true that the public may not have access to a private vehicle as a matter of right but definitely, the public has the opportunity to approach the private vehicle while it is on the public road, said the court.

5.14 GIS-based One District One Product (ODOP) digital map of India

- Recently, the Union Minister for Food Processing Industries has launched the GIS-based One District One Product (ODOP) digital map of India.

- The digital ODOP map provides detailed information about ODOP products to all stakeholders.

- It provides details of ODOP products of all the states and facilitates the stakeholders.

- The digital map also has indicators for tribal, SC, ST, and aspirational

districts.

- The ODOP Digital Map of India will enable stakeholders to make concerted efforts for its value chain development.

One District One Product (ODOP) Scheme

- The Uttar Pradesh government's One District, One Product Programme aims to encourage indigenous and specialized products and crafts.

- The scheme aims to create product-specific traditional industrial hubs across 75 districts of UP.

- The central government will soon launch a 'One District One Product' programme for every district in the country to expand the outreach of their 'special' product not just in India but across the world.

- The objective is to convert each district of the country into an export hub by identifying products with export potential in the district.

5.15 PM-FME SCHEME

- Union Minister for Food Processing Industries, Narendra Singh Tomar has virtually inaugurated the capacity building component of the Pradhan Mantri Formalisation of Micro food processing Enterprises scheme (PM-FME Scheme).

- PM-FME Scheme has been launched with an outlay of Rs 10,000 crore for a period of five years from 2020-21 to 2024-25.

- He also launched the GIS One District One Product (ODOP) digital map of India.

- It provides details of ODOP products of all the states and facilitates the stakeholders to make concerted efforts for its value chain development.

- The digital map also has indicators for tribal, Scheduled Caste (SC), Scheduled Tribe (ST), and aspirational districts.

Scheme

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- The component envisages imparting training to food processing entrepreneurs, various groups, viz., self-help groups (SHGs), Farmer Producer Organizations (FPOs), Co-operatives, workers, and other stakeholders associated with the implementation of the PM-FME scheme.

- Training would be given to the master trainers through online mode, classroom lecture and demonstration, and self-paced online learning material.

- The master trainers will then train the district-level trainers, who will eventually train the beneficiaries.

5.16 LNG fuelling stations

- Minister for Petroleum and Natural Gas and Steel, Dharmendra Pradhan, laid the foundation stone for the first 50 LNG fuelling stations across the golden quadrilateral and major National Highways.

- All LNG stations were connected through video conference during the event with the minister.

- According to an official release, this is part of a slew of initiatives of the Ministry of Petroleum and Natural Gas in realizing Prime Minister Narendra Modi's vision of transforming India into a Gas based economy.

- These 50 LNG stations will be set up and commissioned in partnership by the country's Oil and Gas majors such as IOCL, BPCL, HPCL, GAIL, PLL, Gujarat Gas and their Joint Venture Companies and subsidiaries.

- Out of these 50 LNG stations, IOCL will set up 20 LNG stations, while BPCL and HPCL will set up 11 each LNG station.

- Rest LNG fuel stations are being put up by Gujarat Gas and Joint Venture companies of GAIL and OMCs.

- These 50 LNG stations are being put up at the nation's Golden

quadrilateral and major National highways where LNG is to be made available for heavy vehicles and buses.

- Natural gas is already in consumption by vehicles as CNG, but when used as LNG (Liquefied Natural Gas), its benefits increase multifold.

- Long-haul trucks and buses favour LNG because of its higher energy density than CNG and the ability to travel up to 600 Km to 800 Km in a single fill.

- LNG as a fuel is revolutionary for the transport segment and switching to LNG will not only reduce the cost of operations but also make a drastic reduction in carbon emission and enhance energy security because of substitution of crude oil with LNG.

- It has envisaged the commission of about 1000 LNG stations along all major highways and industrial centers in the coming three years with an investment potential of about 10,000 crores.

- It has also been envisaged to convert about 10 per cent of long-haul heavy-duty vehicles from alternated fuel to LNG.

5.17 Delhi-Ghaziabad-Meerut Regional Rapid Transit System Project

The Ministry of Housing and Urban Affairs, National Capital Region Transport Corporation Limited (NCRTC) and the New Development Bank (NDB) signed a loan agreement for lending 500 million dollars for the 'Delhi-Ghaziabad-Meerut Regional Rapid Transit System Project'.

- The Rapid Transit System will provide a fast, reliable, safe, and comfortable public transport system in the National Capital Region.

- Due to the lack of efficient public transport options, the number of private vehicles in NCR has increased.

- It can take about 3 to 4 hours to travel between Delhi and Meerut in Uttar Pradesh by road during peak hours.

- Rapid growth in vehicular traffic has made NCR one of the most polluted

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regions in the world.

5.18 People's Alliance for Gupkar Declaration (PAGD)

Ever since the Congress party initiated talks with the People's Alliance for Gupkar Declaration (PAGD) for the November-December District Development Council (DDC) elections, the BJP has been on a tirade against the leaders of what it calls the "Gupkar Gang".

- People's Alliance for Gupkar Declaration (PAGD) was formerly known as Gupkar Declaration.

- It is a political alliance between the multiple mainstream regional political parties of Jammu and Kashmir aimed at safeguarding and restoring special status along with Article 35A of the erstwhile state of Jammu and Kashmir.

- The Declaration signed on 4 August 2019 stated that modification or abrogation of Article 35A or Article 370 would be aggression against the people of J&K.

- The venue was the Gupkar Residence in Srinagar and thus it became known as the Gupkar Declaration.

- Gupkar Declaration II, signed on 22 August 2020 by the six political parties asserted that the signatories were bound by August 4, 2019 Gupkar declaration and parties would strive for restoration of Article 370 and Article 35a.

5.19 All India Presiding Officers' Conference at Kevadiya, Gujarat

- President Ram Nath Kovind will inaugurate the two-day 80th All India Presiding Officers' Conference at Kevadiya, Gujarat.

- The conference, organised on the theme 'Harmonious coordination

between Legislature, Executive and Judiciary — Key to a vibrant democracy', and will see discussions on ways to ensure constitutional accountability of the legislature and the executive to the people.

- It will also take up issues related to working of the state legislatures in a disciplined and orderly fashion.

- The event, also known as the Speakers' Conference, will end on the Constitution Day (November 26) with a virtual address by Prime Minister.

- Birla is also the chairperson of the conference, which is in its centenary year now.

- Theme of this year's conference is Harmonious Coordination of Legislative, Executive and Judiciary- Key to a Vibrant Democracy.

- Various sessions will be organised in which presiding officers will exchange their views and shared best practices. discussions will also be held on ways to make the proceedings of Parliament and Legislative Assemblies more productive.

- On 26th November which is celebrated as Constitution Day, Prime Minister Narendra Modi will address the valedictory session of the conference.

SCIENCE AND TECHNOLOGY

6.1 Cybercrimes – Portal

The Union Home Ministry has written to all States to examine and register FIRs based on the complaints received on the National Cybercrime Reporting Portal, www.cybercrime.gov.in.

- As per data available with the Ministry, **only 2.5% of total complaints registered on the portal are converted into First Information Reports (FIRs)**.

- Through the portal, the Ministry aims to raise a group of "**cybercrime volunteers**" to flag "**unlawful content**" on the Internet.

- The **unlawful content** is categorised as *content against the sovereignty and integrity of India, against defence of India, against security of the state, against friendly relations with foreign states, content aimed at disturbing public order, disturbing communal harmony and child sex abuse material*. The volunteers will have to submit photograph, name and address proof to be enlisted as a volunteer.

Cybercrime statistics in India

- Since its launch last year, the portal has received over 2 lakh complaints, but FIRs have been registered only in 5,000 cases. On an average, around 1,000 cybercrime complaints were received every month from across the country. The rate of conversion of complaints to FIRs is very low. In July, of the over 30,000 complaints registered, only 273 FIRs were registered, the data show.

- According to data compiled by the National Crime Records Bureau (NCRB), the number of registered cybercrimes increased by 63.5% in the year 2019 compared with the previous year's.

6.2 What the largest study on dementia hopes to achieve?

Dementia is quite widespread, with over five million people suffering in India alone, a figure set to cross 10 million by 2040. Dementia mainly affects older people, but it is not a normal part of ageing.

- Dementia is a general term to describe **a group of symptoms which occurs due to the damage and death of brain cells**.

- According to the World Health Organisation, *dementia is a syndrome in which there is deterioration in memory, thinking, behaviour and the ability to perform everyday activities*.

- Worldwide, around 50 million people have dementia, and there are nearly 10 million new cases every year — implying one new case every 3.2 seconds. It is estimated that 5.3 million people above the age of 60 have dementia in India in 2020. This equals to one in 27 people, according to the Dementia in India 2020 report.

- Alzheimer's dementia is the most common type of dementia.

- Dementia robs the person not only his memories and personality but often his dignity as well. Stigmatisation, lack of adequate services, barriers to access available services all worsen the physical, psychological and financial hardships of the families, according to Dementia in India report 2020.

Can it be cured?

- Like diabetes has no cure but can be controlled, **there are interventions that can control dementia**. A multi-country study on **Cognitive Simulation Therapy (CST)** for Dementia is underway in India- Brazil-Tanzania.

- CST is a brief group-based pyscho-social intervention for people living with mild to moderate dementia. There is consistent evidence for the effectiveness of CST but less is known about its implementation to routine clinical care.

6.3 India test-fires long range Pinaka rocket system, will be deployed to counter China

Enhanced PINAKA rocket, developed by Defence Research and Development Organisation (DRDO) has been successfully flight tested. Development of Enhanced Pinaka system was taken up to achieve longer range performance compared to earlier design with reduced length.

Pinaka Missile System

- Pinaka is an indigenous multi-barrel rocket launch system, which has been developed by the Defence Research and Development Organisation (DRDO) for the Indian Army.

- Its weapon system has a state-of-the-art guidance kit bolstered by an advanced navigation and control system. The **Pinaka Mark II Rocket** is modified as a missile by integrating with the navigation, control and guidance system to improve the accuracy and enhance the range. The navigation system of the missile is aided by the **Indian Regional Navigation Satellite System (IRNSS)**.

- Pinaka MBRS comprises of **a free-flight artillery rocket** having a maximum range of 38 km with different types of warhead and fuses. There are two pods

containing 6 rockets each, capable of firing in salvo mode within 48 seconds.

- The enhanced version of the Pinaka rocket would replace the existing Pinaka Mk-1 rockets. While Mk-1 had a range of 36 km, this enhanced variant can hit a target 45 to 60 km away and has been developed as per requirements of the Indian Army.

- The DRDO had tested guided Pinaka rocket system in December 2019 which has a range of 70-90 km, but this improved version of Mk-1, which was test-fired recently, can fill a critical gap of hitting targets that are not so far away. The guided Pinaka is more of a missile that can be pin-pointed on the target.

6.4 Interpol created two cybercrime-related communication services

The Interpol has created **two secure and flexible services to facilitate cybercrime-related communication** among law enforcement agencies and other stakeholders to ensure more effective and coordinated action based on timely intelligence.

- One of them is the **Cybercrime Knowledge Exchange workspace** that handles general, non-police information and is open to all relevant users, and the other is the **Cybercrime Collaborative Platform-Operation**, which assists in the law enforcement operations, with access restricted to operational stakeholders only.

- **The Cybercrime Knowledge Exchange (CKE)** workspace is open to law enforcement, governments, international organisations and cybersecurity industry experts to exchange non-police operational information on cybercrime. This workspace is a dynamic communication channel that enables users to discuss the latest cybercrime trends, prevention strategies, detection technologies and investigation techniques with authorised colleagues globally.

- The system is expected to "foster an international network of subject matter experts to share knowledge and experience in this field".

- **The Cybercrime Collaborative Platform-Operation** is a centralised information database for coordination of global law enforcement operations against cybercrime. Hosting multiple, independent workspaces, this restricted-access platform enables operational stakeholders to share intelligence.

'Interpol'

- The **International Criminal Police Organisation (INTERPOL)** is an international organisation that facilitates worldwide police cooperation and crime control.

- It originated with the **first International Criminal Police Congress in 1914,** which brought officials from 24 countries to discuss cooperation on law enforcement matters.

- It was founded in 1923 as the **International Criminal Police Commission (ICPC)**.

- In 1946, after the end of World War II, the organisation was revived as the **International Criminal Police Organization (ICPO)** by officials from **Belgium, France, Scandinavia and the UK**.

- In 1956, the ICPC adopted a new constitution and the name INTERPOL.

- It is headquartered in **Lyon, France.**

- It has **seven regional bureaus worldwide and a National Central Bureau (NCB)** in all 194 member states, making it the world's largest police organisation.

- India has been a member since 1956.

- India maintains a NCB which **serves as the national platform for cooperation between domestic law enforcement units and the international police community**.

UN member states without membership are **Micronesia, North Korea, Palau, Tuvalu.**

6.5 What is a radio burst, spotted by NASA for the first time in the Milky Way?

How Fast Radio Bursts Work

Fast radio bursts are brief, energetic blips of radio waves that originate far across the universe. At least one repeats, which has added to the challenge of explaining what might be creating them. A new model accounts for past observations and predicts specific features that should be seen going forward.
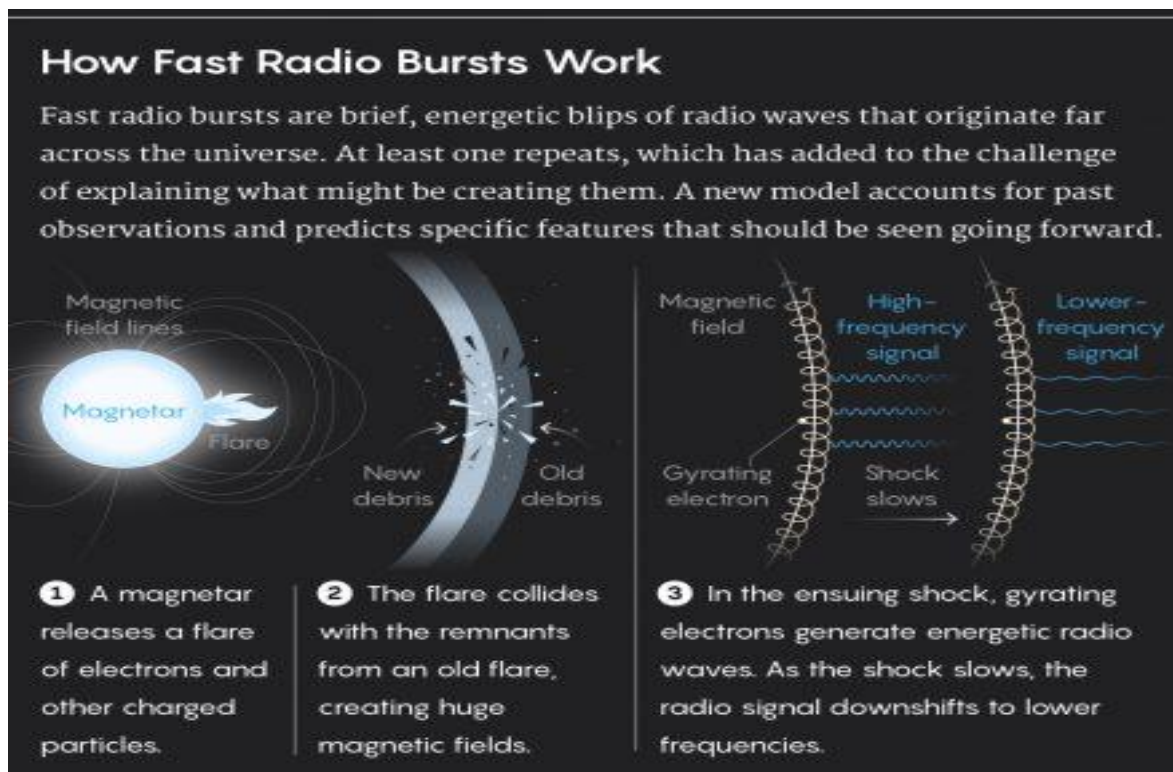
Recently, NASA has reported that it observed **a mix of X-ray and radio signals never observed before in the Milky Way**. Significantly, the flare-up it observed included the **first fast radio burst** (FRB) seen within the galaxy.

The first FRB was discovered in 2007. Essentially, **FRBs are bright bursts of radio waves (radio waves can be produced by astronomical objects with changing magnetic fields) whose durations lie in the millisecond-scale**, because of which it is difficult to detect them and determine their position in the sky.

What is the origin of the FRB detected?

The source of the FRB detected in April 2020 in the Milky Way is **a very powerful magnetic neutron star, referred to as a magnetar**, called **SGR 1935+2154 or SGR 1935**, which is located in the **constellation Vulpecula** and is estimated to be between 14,000-41,000 light-years away.

What is a magnetar?

- As per NASA, a magnetar is a neutron star, "*the crushed, city-size remains of a star many times more massive than our Sun*." The **magnetic field** of such a

star **is very powerful**, which can be over **10 trillion times stronger than a refrigerator magnet and up to a thousand times stronger than a typical neutron star's**.

- Neutron stars are formed when the core of a massive star undergoes gravitational collapse when it reaches the end of its life.

- Magnetars are a subclass of these neutrons and occasionally release flares with more energy in a fraction of a second than the Sun is capable of emitting in tens of thousands of years.

Significance –

Until now, there were various theories that tried to explain what the possible sources of an FRB could be. One of the sources proposed by the theories has been magnetars. But before April this year, scientists did not have any evidence to show that FRBs could be blasted out of a magnetar. Therefore, the observation is especially significant.

6.6 Body Mass Index – India ranks 3rd

India ranks third and fifth from the bottom respectively among countries where 19-year-old girls and boys have a low body mass index, according to a study in The Lancet.

- Body mass index (BMI) is **a person's weight in kilograms divided by the square of height in meters**. BMI is an inexpensive and easy screening **method for weight category**—underweight, healthy weight, overweight, and obesity.

- **BMI does not measure body fat directly**, but BMI is moderately correlated with more direct measures of body fat. Furthermore, BMI appears to be as **strongly correlated with various metabolic and disease outcome** as are these more direct measures of body fatness.

What does the study indicate?

- The study provides new estimates for height and BMI trends in 2019 across 200 countries after analysing data from 2,181 studies.

- BMI is measured as the weight in kg divided by the square of the height in

metres. World Health Organisation guidelines define **a normal BMI range as 18.5 to 24.9, overweight as 25 or higher, and obesity as 30 or higher**.

- The **mean BMI of 19-year-old boys is 20.1 in India**, compared to a high of 29.6 in the Cook Islands and a low of 19.2 in Ethiopia. **For Indian girls, the mean BMI is again 20.1**, compared to a high of 29.0 in Tonga and a low of 19.6 in Timor-Leste.

- The **mean height of Indian 19-year-olds is 166.5 cm for boys and 155.2 cm for girls**, well below the high of Netherlands boys (183.8 cm) and girls (170 cm).

6.7 EOS-01 – Earth ObservationSatellite.

India sent its first space mission in almost a year with a launch of EOS-01, an Earth Observation Satellite. EOS-01, along with nine satellites from foreign countries, was launched by a PSLV rocket twelve minutes past three.

- EOS-01 is nothing but another **Radar Imaging Satellite (RISAT) that will work together with RISAT-2B and RISAT-2BR1** launched last year. EOS-01 was initially named RISAT-2BR2, and was supposed to be the **third of the three-spacecraft constellation aimed at providing all-weather round-the-clock service for high-resolution images**.

- With EOS-01, ISRO is moving to a new naming system for its earth observation satellites which till now have been named thematically, according to the purpose they are meant for. For example, the Cartosat series of satellites were meant to provide data for land topography and mapping, while the Oceansat satellites were meant for observations over sea. Some INSAT-series, Resourcesat series, GISAT, Scatsat, and some more are all earth observation satellites, named differently for the specific jobs they are assigned to do, or the different instruments that they use to do their jobs.

- Land and forest mapping and monitoring, mapping of resources like water or minerals or fishes, weather and climate observations, soil assessment, geospatial contour mapping are **all done through earth-observation satellites**.

- Henceforth, it seems, all the earth observation satellites would be called EOS-

series.

Radar imaging –

- EOS-01, like its cousins RISAT-2B and RISAT-2BR1, **uses synthetic aperture radars to produce high-resolution images of the land**. One big advantage that radar imaging has over optical instruments is that **it is unaffected by weather, cloud or fog, or the lack of sunlight**. It can **produce high-quality images in all conditions and at all times**.

- Depending on the wavelength of the electromagnetic radiation used by the radar, different properties on land can be captured in the image. For example, **a low wavelength signal can capture tree cover or vegetation, while a higher wavelength signal can penetrate even dense tree cover to look at the contours of land beneath**.

- EOS-01, and its sister RISATs, **use X-band radars that operate at low wavelengths and are considered best for monitoring of urban landscape, and imaging of agricultural or forest land**.

- According to ISRO, EOS-01 is intended for applications in agriculture, forestry and disaster management support. The radar images are also considered to be immensely useful for military requirements.

6.8 Pfizer's Covid-19 m-RNA Vaccine

Recently, **American pharma company Pfizer** has claimed that its **vaccine candidate BNT162b2 is more than 90% effective** in preventing **Covid-19** in participants without evidence of prior **SARS-CoV-2** infection.

The premise of any vaccine is to induce a long-lived immune "memory" in the form of B and T cells. Upon any encounter with a pathogen (which can be bacteria or viruses), these cells will recognise the danger and fight it off by destroying the pathogen and pathogen-infected cells. The danger signal takes the form of an antigen, a molecule that notifies the immune system of a pathogen. For SARS-CoV-2, the antigen targeted by B and T cells is usually a protruding spike protein on the surface of the virus.

The challenge in vaccination is inducing this response, which requires a handshake between an antigen-presenting cell and a specific type of T cell, without getting people sick. It's the antigen peptide (smaller sections of antigen molecule) presented in this

interaction that determines the target of the immune response.

Common vaccines are weakened or inactivated versions of the virus, like the yearly flu or the polio vaccine children receive 2 months after birth. A huge variety of antigens, some useful and some not, can be presented since cells are receiving the entirety of the virus. Newer vaccines utilise other engineered, well-studied doses containing specific regions of the target pathogen to create specific immune reactions.
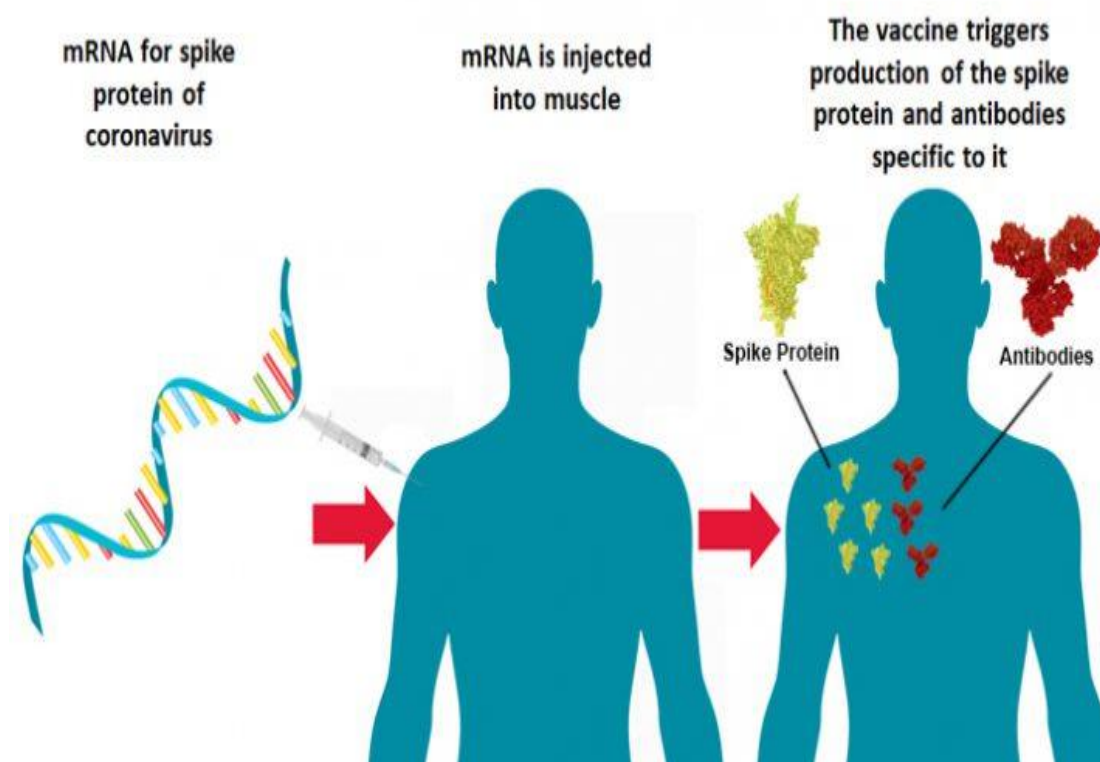
BNT162b2:

- It is a **single nucleoside-modified messenger RNA** (modRNA) vaccine, which is made of a short segment of genetic material (the messenger RNA/mRNA) which **provides instructions for a human cell to make a harmless version of a target protein,** in this case the spike protein of SARS-CoV-2, in order **to activate an immune response.**

  - The mRNA vaccine is a new approach to protecting against viral infection.

- Unlike traditional vaccines, which work by training the body to recognise and kill proteins produced by pathogens, mRNA tricks the patient's immune system to **produce viral proteins itself.**

- The proteins are harmless, but sufficient to provoke a robust immune response.

- Its **phase 3 clinical trial began in July** with 43,538 participants, 38,955 of whom had received a second dose by November. The case split between vaccinated individuals and those who received the placebo indicates a **vaccine efficacy rate above 90%,** at 7 days after the second dose.

- It means that **protection is achieved 28 days after the initiation of the vaccination,** which consists of a **2-dose schedule.**

- Pfizer has become the **first firm to release promising late-stage trial data of a potential vaccine** for Covid-19, even though the announcement **does not have scientifically conclusive evidence** on the safety and efficacy of the vaccine candidate.

- However, the **analysis o**f the vaccine candidate by an **external independent Data Monitoring Committee** (DMC) has **not reported any serious safety concerns.**

- The announcement comes days before the company plans to submit safety and efficacy data from the trial to the American regulator, the **United States Food and Drug Administration** (USFDA) seeking emergency use authorisation.

- **Vaccines Worldwide:**

  - As of mid-October 2020, the **World Health Organization** (WHO) has identified **42 candidate vaccines** at the stage of clinical trials, up from 11 in mid-June.

  - **Ten of them** were at the most advanced **phase 3 stage,** in **which a vaccine's effectiveness is tested on a large scale,** generally tens of thousands of people across several continents.

  - The **USA biotech firm Moderna,** several **state-run Chinese labs,** and a **European project led by the University of**

Oxford and **AstraZeneca** are also closing in on potentially viable vaccines.

- **Two Russian Covid-19 vaccines** have been registered for use even before clinical trials were completed, but have not been widely accepted outside of Russia.

India's Progress

- India is **preparing to administer a vaccine against Covid-19 to its population early in 2021** and for that, it is **working with neighbouring countries** on possible collaborative clinical trials of vaccine candidates in the future.

- A specialist team of scientists and researchers from the **Indian Council of Medical Research** (ICMR) and the **Department of Biotechnology** (DBT) under the Union Ministry of Science and Technology, has **imparted training to doctors and regulators** in **Sri Lanka, Myanmar, Bangladesh, Bhutan, Nepal, and Afghanistan.**

- The Indian team has focused its training on conducting crucial **phase II and III** human clinical trials of the potential vaccine candidate along lines of India's regulatory mechanism.

  - In **phases II/III,** reactogenicity (ability to produce common, adverse reactions), immunogenicity (ability to provoke an immune response), and safety of the vaccine candidate are assessed in a larger population.

- The **current aim is to facilitate a future collaborative clinical trial** but in **future, it will allow India to explore the option of buying** the potential Covid-19 vaccine from these neighbouring countries.

- **Indigenously Developed Vaccines:**

  - **ZyCoV-D**: Designed and developed by Zydus (a pharmaceutical company) with support from the DBT.

  - **Covaxin**: Developed by Bharat Biotech in collaboration with the ICMR.

- **Assistance in Global Trails:**

  - **Covishield**: Name given to an Oxford-AstraZeneca Covid-19

vaccine candidate which is technically referred to as AZD1222 or ChAdOx 1 nCoV-19.

- **Sputnik V**: The first vaccine to be officially registered and has been developed by Moscow's Gamaleya Institute in collaboration with the Russia's defence ministry.

6.9 INS Vagir – INS Kalvari-class attack submarine

Indian Navy's fifth **Kalvari-class Diesel Electric attack submarine INS Vagir** was launched at Mazgaon Dock in Mumbai. A look at this modern and stealthy class of submarines having been built under Project 75 and whose design is based on the Scorpene class of the submarines.

- Indian Naval Ship (INS) Vagir is the **fifth among the six Kalvari-class submarines** being constructed by the public sector shipbuilder Mazagon Dock Ltd (MDL) in Mumbai.

- The other vessels in the class are **INS Kalvari, INS Khanderi, INS Karanj, INS Vela and INS Vagsheer**. Of these **Kalvari and Khanderi** have been commissioned in **2017** and **2019**, **Vela and Karanj** and **undergoing sea trials**, **Vagir** has now been launched and **Vagsheer** is **under construction**.

- After its launch, Vagir will commence with the setting to work of various equipment and the Harbour Acceptance Trials. The crew will subsequently sail the submarine for the Sea Acceptance Trials after which the submarine would be delivered to the Navy.

- The submarines in the current Kalvari-class **take their names from erstwhile decommissioned classes of submarines named Kalvari which included Kalvari, Khanderi, Karanj and Vela class — which included Vela, Vagir, Vagshir**. The now-decommissioned Kalvari and Vela classes were one of the earliest of the submarines in post independence Indian Navy, which **belonged to Soviet origin Foxtrot class of vessels**.

- Launch of a vessel is the process of **transferring the ship from dockyard to water and is different from the commissioning of the ship**, when it actually enters the active service.

Naming of the vessel

- In maritime parlance a class of ships is **a group of vessels which have the same make, purpose and displacement**. In the Navy and Coast Guard in India, the ships belonging to a particular class are named in a specific manner.

- Many times the names have the same first letters, prefixes, similar meanings or the names belong to a particular type of words for example names of cities, persons, mythological concepts, animals, rivers, mountains, weapons, etc.

- **The class is generally named after the first vessel in the category**. In some cases, a particular class of vessels take their names from an earlier class of vessels which are now decommissioned.

- Like Kalvari – which means Tiger Shark, Vagir has been named after a Sand Fish, a predatory marine species. Khanderi has been named after an Island Fort built by Chhatrapati Shivaji, which played a key role in his Navy. Karanj has also been named after an Island located South of Mumbai.

Technical details

- The design of Kalvari class of submarines is **based on Scorpene class of submarines**designed and developed by **French defence major Naval Group formerly DCNS and Spanish state owned entity Navantia**. This class of submarines have **Diesel Electric transmission systems** and these are primarily attack **submarines or 'hunter-killer' type** which means they are designed to target and sink adversary naval vessels.

- The Kalvari-class submarines have capability of operating in **a wide range of Naval combat including anti-warship and anti-submarine operations, intelligence gathering and surveillance and naval mine laying**. These submarines are around 220 feet long and have a height of 40 feet. It can reach the highest speeds of 11 knots when surfaced and 20 knots when submerged.

- The modern variants of the Scorpene class of submarines have what is called the **Air Independent Propulsion (AIP) which enables non-nuclear submarines to operate for a long time without access to surface oxygen**. Two of six submarines in Kalvari class are equipped with AIP. It also needs to be noted that the Defence Research and Development Organisation (DRDO) has an ongoing programme to build a fuel cell-based AIP system for Indian Naval Submarines.

- The Kalvari class of submarines are **capable of launching various types of torpedoes and missiles** and are equipped with a range of surveillance and

intelligence gathering mechanisms.

Strategic importance

- India currently operates one submarine each in nuclear powered Classes of Chakra and Arihant and in addition to 14 submarines belonging to three classes of Diesel Electric category — **Kalvari, Shishumar and Sindhughosh**, some of which are ageing.

- The nuclear powered and diesel electric submarines have their designated roles in the **Carrier Battle Groups**, which are formations of ships and submarines with Aircraft Carriers at the lead role. As per the basic principles of submarine deployment and minimum requirement for India to create a strategic deterrence, there is a specific number of submarines of both types that India needs to have in active service. Currently India has less number of submarines than what is required with some more of those from both types being at various stages of construction.

6.10 QRSAM Missile System – DRDO

Quick Reaction Surface to Air Missile (QRSAM) System has achieved a major milestone by a direct hit on to a Banshree Pilotless target aircraft at medium range and medium altitude.

- The missile is propelled by a single stage solid propellant rocket motor and uses all indigenous subsystems. The Missile is canisterised for transportation and launch using a mobile launcher capable of carrying 6 canisterised missiles.

- **Information** – Solid rocket fuel is the original rocket fuel, dating back to the early fireworks developed by the Chinese centuries ago. For the SLS boosters, aluminium powder serves as the fuel and a mineral salt, **ammonium perchlorate**, is the oxidiser.

What is a 'QRSAM'?

- The state-of-the-art missile is a sophisticated **all-weather and all-terrain missile**developed by the **Defence Research and Development Organization** (DRDO) for the India Army.

- QRSAM uses **solid-fuel propellant** and has **a range of 25-30 km**. It can be

mounted on a truck and stored in a canister. It is equipped with electronic counter measures against jamming by aircraft radars.

- The first trial of the QSRAM was conducted in June 2017. The system is being **developed for the Army** with search and track on move capability with very short reaction time.

- The systems are equipped with indigenously developed **phased array radar**, inertial navigation system, data link and radio frequency seeker. It is capable of hitting the low flying objects.

6.11 ARIEL Space Mission – European Space Agency (ESA)

The European Space Agency (ESA) has formally adopted **Ariel, the explorer that will study the nature, formation and evolution of exoplanets**. As of now the existence of more than 4,000 exoplanets is considered confirmed, while there are thousands of other candidate exoplanets that need further observations to say for certain if they are exoplanets.

Proxima Centauri b is the closest exoplanet to Earth and is four light-years away and inhabits the "habitable zone" of its star, which means that it could possibly have liquid water on its surface.

Exoplanets

- Planets that **lie outside of the Solar System and orbit around stars other than the Sun** are called exoplanets or extrasolar planets. Exoplanets are not easy to detect since **they are much less brighter than the stars they orbit** and hence it is difficult to see them directly using telescopes.

- As per NASA, only a handful of exoplanets have been found using telescopes and the rest have been detected using indirect methods. One of these methods involves tracking the dimming of a star that happens when a planet passes in front of it. NASA's Kepler Space telescope uses this method to spot thousands of planets.

Why do scientists study exoplanets?

The search for exoplanets is driven by the possibility that **life may exist beyond Earth and even if there is no evidence for this**, scientists believe that their hunt for an answer

will reveal details about where humans came from and where we're headed.

What is the Ariel Space Mission?

- **Ariel (Atmospheric Remote-sensing Infrared Exoplanet Large-survey)**, which scientists are planning to launch in 2029, **will perform a large-scale survey of over a thousand exoplanets over a period of four years**. These thousand exoplanets will range from gas giants to rocky planets, which will help them to compile a list of their compositions and properties thereby providing insights about how planetary systems form and evolve.

- Ariel is the **first mission of its kind dedicated to measuring the chemical composition and thermal structures of hundreds of exoplanets**. Further, Ariel will help to answer one of the key questions of ESA's Cosmic Vision Plan, which is, "**What are the conditions for planet formation and the emergence of life?**"

6.12 India in Thirty Meter Telescope Project

The design of **back-end instruments** and other aspects of the **Thirty Meter Telescope (TMT)** project being installed at **Maunakea in Hawaii** has been developed by close collaboration between the **2020 Physics Nobel Laureate Prof. Andrea Ghez** and **Indian astronomers.**

- The Thirty-meter telescope (TMT) project is an international partnership between the **USA, Canada, Japan, China, and India.**

- It will allow deeper exploration into space and **observe cosmic objects** with unprecedented sensitivity.

- **Other Global Projects with Indian Collaboration:**

    - **The Laser Interferometer Gravitational-Wave Observatory (LIGO) Project**

        - The Indian scientists contributed in several aspects such as **designing algorithms for analysis of signals from gravitational waves,** estimating energy and power radiated from black holes etc.

        - Now **LIGO-India** is a planned advanced gravitational-

wave observatory to be located in India as part of the worldwide network.

- **CERN Project**

  - India became a **full Associate Member** of world's largest particle **Physics laboratory CERN** in 2017, thereby **getting full access** to data generated there.

  - The contribution of Indian scientists there is mainly in building the **Large Hadron Collider (LHC)** and construction of two significant CERN experiments, **CMS and ALICE.**

- **Facility for Antiproton and Ion Research (FAIR)**

  - FAIR is coming up at **Darmstadt, Germany** for **studying the building blocks of matter and the evolution of the Universe.**

  - FAIR is a sophisticated **accelerator complex** that will **use the high energy and ion beams to mimic the condition inside the core** of the stars and early phase of the universe.

  - The role of Indian scientists would be to build **NUSTAR** (Nuclear Structure, Astrophysics and Reactions), **CBM**(Compressed Baryonic Matter) and **PANDA** (Antiproton Annihilation at Darmstadt).

- **Square Kilometre Array (SKA)**

  - India has joined **nine other countries** to build the **world's largest and most sophisticated radio telescope** called Square Kilometre Array (SKA).

  - The **core of the telescope will be based in Karoo desert in South Africa.** Since the **total detection area** of the receiver dishes would exceed **1 square kilometer,** it is called Square Kilometre Array.

- **International-Thermonuclear-Experimental-Reactor (ITER)**

  - The International-Thermonuclear-Experimental-Reactor (ITER) is focused around **creating an environment**

mimicking the Sun in laboratory conditions using **nuclear fusion.**

- India's scientists and institutions such as **Institute for Plasma Research, Ahmedabad** are playing an important role in this.

6.13 CSIR – Emergency Retrieval System for Power Lines

Council of Scientific and Industrial Research (CSIR) constituent laboratory Structural Engineering Research Centre (SERC) based in Chennai has developed **an indigenous technology, Emergency Retrieval System (ERS), for quick retrieval of power transmission in the event of failure of transmission line towers**.

Need

- At present, the ERS systems are imported. There are very few manufacturers across the world and the cost is relatively high.

- This technological development will enable the manufacturing in India for the first time, which will be an import substitute and will cost about 40% of imported systems.

- ERS has huge market requirement in India as well as in SAARC and African countries. Hence, this technological development is a big leap forward towards Atma Nirbhar Bharat and Make in India.

Indigenously developed ERS

- ERS is a lightweight modular system that is used as **temporary support structure to restore power immediately after the collapse of transmission line towers during natural calamities** such as cyclone/earthquake, or manmade disruptions.

- ERS **can be assembled quickly** at the disaster site for restoration of power in 2-3 days, whereas the permanent restoration may take several weeks.

- This development is very significant as failure of transmission lines severely impact lives of common people and causes huge monetary loss to the power companies.

- As the total losses/damages are directly proportional to the outage duration,

time is a crucial factor in reinstating or remediating the damaged/fallen structures.

Structure

- Made of structurally highly stable box sections, ERS is lightweight, modular and reusable.

- It provides complete solution from member connections up to the foundation for different type of soil conditions.

- The system is verified through rigorous structural tests. Basic knowledge and tools are enough to assemble and install ERS at the disaster site.

- Suitable configurations for different voltage-class of transmission line systems are possible.

- The system is compact and yet provides full functionality on erection. It is designed as a scalable system for 33 to 800 kV class of power lines and can help in building a disaster resilient society.

6.14 NASA – Crew-1 Mission

As part of NASA's first commercial human spacecraft system in history, a crew of four astronauts is now en route to the International Space Station (ISS) on a 27-hour flight, onboard SpaceX's Crew Dragon spacecraft called **Resilience**.

Crew-1 is the **first operational flight of the SpaceX Crew Dragon spacecraft on a Falcon 9 rocket to the ISS** and is also the first of the three such flights scheduled over the course of 2020-21.

- It is the **first of six crewed missions that NASA and SpaceX will operate as part of the Commercial Crew Program**, whose objective is to **make access to space easier in terms of its cost**, so that cargo and crew can be easily transported to and from the ISS, enabling greater scientific research.

- The programme is a way to **reduce the cost of going to space for agencies such as NASA** and also makes it possible for any individual to buy a ticket on a commercial rocket. Therefore, the launch is being seen as the beginning of a new era in space travel.

Why is the mission significant?

The Crew-1 mission marks many firsts for NASA and SpaceX including it being the first flight of the NASA-certified commercial system, the first international crew of four to launch on an American commercial spacecraft, the first time the space station's long-duration expedition crew size will increase from six to seven crew members, which will add to the crew time available for research and the first time the Federal Aviation Administration has licensed a human orbital spaceflight launch.

6.15 Param Siddhi – high performance computing-artificial intelligence (HPC-AI) supercomputer

Param Siddhi, the high performance computing-artificial intelligence (HPC-AI) supercomputer established under National Supercomputing Mission (NSM) at C-DAC has **achieved global ranking of 63 in TOP 500** most powerful non-distributed computer systems in the world.

'Supercomputer'

- A **supercomputer** is a computer that performs at or near the currently highest operational rate for computers. Traditionally, **supercomputers** have been used for scientific and engineering **applications** that must handle very large databases or do a great amount of computation (or both).

- A **supercomputer** is not simply a fast or very large computer: it **works** in an entirely different way, typically using parallel processing instead of the serial processing that an ordinary computer uses. Instead of doing one thing at a time, it does many things at once.

- **CDC 6600 –** In 1964, there was the **Control Data Corporation** 6600 which is known as the first supercomputer.

National Supercomputing Mission

- A first of its kind attempt to boost the country's computing power, the National Super Computing Mission is steered j**ointly by the Ministry of Electronics and IT (MeitY) and Department of Science and Technology (DST) and implemented by the Centre for Development of Advanced Computing (C-DAC), Pune and the Indian Institute of Science (IISc),**

Bengaluru.

- The target of the mission was set **to establish a network of supercomputers ranging from a few Tera Flops (TF) to Hundreds of Tera Flops (TF) and three systems with greater than or equal to 3 Peta Flops (PF) in academic and research institutions of National importance** across the country by 2022.

- This network of Supercomputers envisaging a total of 15-20 PF was approved in 2015 and was later revised to a total of 45 PF (45000 TFs), a jump of 6 times more compute power within the same cost and capable of solving large and complex computational problems.

- With the revised plan in place, the first supercomputer assembled indigenously, called **Param Shivay**, was **installed in IIT (BHU)** and was inaugurated by the Prime Minister. Similar systems **Param Shakti and Param Brahma** were installed at **IIT-Kharagpur and IISER, Pune**. They are equipped with applications from domains like Weather and Climate, Computational Fluid Dynamics, Bioinformatics, and Material science.

6.16 Gullian Barre Syndrome – attackingtheperipheral nervous system

In a rare complication, some patients infected with Covid-19 have been found suffering from Guillain Barre Syndrome (GBS). A group of neurologists in Mumbai is now mapping these cases and their symptoms.

Guillain Barre Syndrome

- It is a **very rare autoimmune disorder.** The immune system, in an attempt to kill the coronavirus, **accidentally starts attacking the peripheral nervous system**. The peripheral nervous system is a network of nerves that lead from the brain and spinal cord to different parts of the body. Attacking them can affect limb functions.

- The syndrome's first symptoms are **a tingling or itching sensation in the skin, followed by muscle weakness, pain and numbness**. The symptoms may emerge first in feet and hands. A person then starts experiencing reflex loss and paralysis, which may be temporary, but can last for 6-12 months or longer. With Covid-19 a year old, it is still difficult to assess the nature of

permanency GBS in such cases may present.

- GBS is **caused by bacteria or viral infection**. In the past, patients of Middle East Respiratory Syndrome showed GBS symptoms, as did those infected with Zika, HIV, Herpes virus and Campylobacter jejuni.

Treatment

Intravenous immunoglobulin (IVIG) and sometimes plasma therapy helps recovery in patients with GBS. Some patients may develop severe complications and require intensive care treatment or ventilator support.

6.17 Quick Reaction Surface to Air Missile System

- The second flight test of Quick Reaction Surface to Air Missile System (QRSAM) was successfully conducted from the Integrated Test Range, Chandipur, off the coast of Odisha.

- The first in the series test of QRSAM took place on 13th of this month.

- The system is capable of detecting and tracking targets on the move and engaging targets with short halts. It is designed to give air defense coverage for strike columns of the Indian Army,

- Propelled by a single-stage solid propellant rocket motor, the sophisticated missile used all indigenous subsystems.

- The missile is cannisterised for transportation and launch using a mobile launcher which is capable of carrying six canisterised missiles.

- First launch test on 13th November proved the Radar and Missile capabilities with direct hit while today's test demonstrated the warhead performance on proximity detection.

6.18 Param Siddhi

Param Siddhi, the high-performance computing-artificial intelligence (HPC-AI) supercomputer established under National Supercomputing Mission (NSM) at C-DAC has achieved a global ranking of 63 in TOP 500 most powerful non-

distributed computer systems in the world released.

- The AI system will strengthen application development of packages in areas such as advanced materials, computational chemistry &astrophysics, and several packages being developed under the mission on the platform for drug design and preventive health care system, flood forecasting package for flood-prone metro cities like Mumbai, Delhi, Chennai, Patna and Guwahati.

- This will accelerate R&D in war against COVID-19 through faster simulations, medical imaging, genome sequencing and forecasting and is a boon for Indian masses and for start-Ups and MSMEs in particular.

- It is a boon for application developers and will help testing of weather forecasting packages by NCMRWF & IITM, geo-exploration packages for oil and gas recovery; packages for aero-design studies; computational physics and mathematical applications and even online courses for education.

- The supercomputer with Rpeak of 5.267 Petaflops and 4.6 Petaflops Rmax (Sustained) was conceived by C-DAC and developed jointly with support of Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MeitY) under NSM.

- Param Siddhi Supercomputer is built on theNVIDIA DGX SuperPOD reference architecture networking along with C-DAC's indigenously developed HPC-AI engine, software frameworks and cloud platform and will help deep learning, visual computing, virtual reality, accelerated computing, as well as graphics virtualization.

6.19 Global Prevention Coalition (GPC) for HIV Prevention

Dr. Harsh Vardhan, Union Minister for Health and Family Welfare digitally addressed the Ministerial meeting of the Global Prevention Coalition (GPC) for HIV Prevention, through Video Conference.

- Hosted by UNAIDS and UNFPA on behalf of the Global HIV

Prevention Coalition (GPC),the conference this year holds significance in achieving the 2016 UNGA commitment to end AIDS by 2030.

- Member States of GPC had agreed to reduce new adult HIV infections by 75% at the end of 2020 from 2010 levels.

- Acknowledging that Global AIDS response has shown remarkable success in reducing new infections, improving access to prevention services for key population and treatment services for People living with HIV (PLHIV), reducing AIDS related mortality, enabling reduction in mother to child transmission of HIV and creating an enabling environment, Dr. Harsh Vardhan noted that the organization "has shown to the world a model where multiple stakeholders can come together and work cohesively towards a common goal."

- India's unique HIV prevention model which is centered around the concept of 'Social Contracting' through which the Targeted Interventions (TI) programme is implemented.

- With support from Non-Government Organizations, the programme is aimed at providing outreach, service delivery, counselling & testing and ensuring linkages to HIV care. India's prevention model can be adopted and scaled up in many countries by tailoring the intervention as per local settings.

- It can also be replicated in other prevention and disease control programmes.

6.20 "Microwave Weapons"

- The Indian Army has rejected "fake" a report which claimed that the Chinese army had used "microwave weapons" to drive Indian soldiers away from their positions in eastern Ladakh.

- Microwave Weapons are supposed to be a type of direct energy weapons, which aim highly focused energy in the form of sonic, laser, or microwaves, at a target.

- China had first put on display its "microwave weapon", called Poly WB-

1, at an air show in 2014.

- The United States has also developed a prototype microwave-style weapon, which it calls the "Active Denial System".

- The US apparently deployed such a weapon in Afghanistan, but withdrew it without ever using it against human targets.

- Microwave Weapons use beams of high-frequency electromagnetic radiation to heat the water in a human target's skin, causing pain and discomfort.

- A number of countries are thought to have developed these weapons to target both humans and electronic systems.

- Concerns have been raised on whether they can damage the eyes, or have a carcinogenic impact in the long term.

6.21 IRNSS

- The Indian Regional Navigation Satellite System (IRNSS) has been accepted as a component of the World Wide Radio Navigation System (WWRNS) for operation in the Indian Ocean Region by the International Maritime Organization (IMO).

- This will enable merchant vessels to use IRNSS for obtaining position information similar to GPS and GLONASS to assist in the navigation of ships in ocean waters within the area covered by 50°N latitude, 55°E longitude, 5°S latitude and 110°E longitude.

- IRNSS is an independent regional navigation satellite system developed by India.

- It is designed to provide accurate position information service to assist in the navigation of ships in Indian Ocean waters.

- India has become the fourth country in the world to have its independent regional navigation satellite system recognised by the IMO as a part of the WWRNS.

- The other three countries that have its navigation systems recognised by the IMO are the US, Russia and China.

6.22 Sustainable Alternative Towards Affordable Transportation (SATAT) initiative

- India will see an investment of Rs 2 lakh crore in setting up 5,000 plants that will produce gas from bio and crop wastes by 2023-24, Oil Minister Dharmendra Pradhan said.

- To boost the availability of affordable and clean transport fuel, an agreement was signed for setting up 900 compressed bio-gas or CBG plants by companies such as Adani Gas and Torrent Gas.

- Under the Sustainable Alternative Towards Affordable Transportation (SATAT) initiative, the government is looking at setting up of 5,000 CBG plants by 2023-24 with a production target of 15 million tonnes, an official statement said.

- Speaking on the occasion, Pradhan said, "We have developed a clear-cut roadmap for SATAT. Letter of intent for 600 CBG plants have already been given and with today's signing of MoUs for 900 plants, a total of 1500 CBG plants are at various stages of execution."

- A total of 5000 CBG plants with an approximate investment of Rs 2 lakh crores are envisaged.

- The gas produced at CBG plants can be used as fuel to power automobiles.

- Biofuels have the potential to reduce fuel import bill by Rs 1 lakh crore, he said without elaborating.

- SATAT provides for generating gas from municipal waste as well as forest and agri waste.

- Animal husbandry and marine wastes are also included.

- The policy provides for guaranteed offtake of the gas produced at the CBG plants by the state-owned firms.

- "SATAT will establish an ecosystem for the production of compressed bio gas from various waste and biomass sources in the country leading to

multiple benefits such as reduction of natural gas import, reduction of greenhouse gas emission, reduction in burning of agriculture residues, remunerative income to farmers, employment generation and effective waste management," the statement said.

6.23 Sentinel-6 Michael Freilich satellite

- The Copernicus Sentinel-6 Michael Freilich satellite, designed to monitor oceans, was launched from the Vandenberg Air Force base in California aboard a SpaceX Falcon 9 rocket .

- This is a part of the next mission dedicated to measuring changes in the global sea level.

- Other satellites that have been launched since 1992 to track changes in the oceans on a global scale include the TOPEX/Poseidon, Jason-1 and OSTN/Jason-2, among others.

- The Sentinel-6 Michael Freilich satellite has been named after Dr. Michael Freilich, who was the Director of NASA's Earth Science Division from 2006-2019 and passed away in August this year.

- The mission, called the Jason Continuity of Service (Jason-CS) mission, is designed to measure the height of the ocean, which is a key component in understanding how the Earth's climate is changing.

- The spacecraft consists of two satellites, one of them launched on Saturday, and the other, called Sentinel-6B, to be launched in 2025.

- It has been developed jointly by the European Space Agency (ESA), NASA, European Organisation for the Exploitation of Meteorological Satellites (Eumetsat), the USA's National Oceanic and Atmospheric Administration (NOAA) and the EU, with contributions from France's National Centre for Space Studies (CNES).

6.24 Delirium can predict corona virus

- A new study supports evidence that delirium can predict corona

virus infection in older patients who show no other typical symptoms of Covid-19.

- Published in the journal JAMA Network Open, the study is by researchers at Hebrew SeniorLife, a healthcare, education and research facility affiliated to Harvard Medical School.

- Delirium is an acute state of confusion, marked by disorientation, lack of attention etc.

- Even beyond Covid-19, delirium is a common symptom in older adults with severe disease.

- And in Covid-19, adults aged 65 years and older are at greatest risk of severe disease, and death.

- The new study examined 817 elderly patients of Covid-19.

- The researchers found that almost a third of the patients had delirium.

- A delirium diagnosis was the main presenting symptom for 16% of those patients, and 37% had no typical COVID-19 symptoms.

- Delirium was the sixth most common presenting symptoms in all patients.

- The researchers stressed the importance of including delirium on the checklist of Covid-19 symptoms.

6.25 Neutralising Antibodies

- A new study in Pune has revealed that nearly 85% of the people who had been found infected with novel coronavirus in a serosurvey, conducted earlier, had developed neutralising antibodies.

- In other words, these people had developed immunity against the disease.

- It is sometimes thought that everyone who is infected with a disease-causing virus, and recovers, becomes immune to the disease, because

they build antibodies against it. But that is not the case.

- While the creation of antibodies is necessary for the recovery process, it does not guarantee immunity against a future attack from the same virus.

- Immunity comes from what are known as "neutralising" or "protective" antibodies.

- Neutralising antibodies, like other antibodies that are created to fight the disease, are nothing but proteins.

- These are a small subset of the disease-specific antibodies that are generated once an infection has occurred.

- The neutralising antibodies become special because they have the ability to thwart the entry of the same virus inside human bodies in the future.

- The other antibodies help in fighting off the virus once the infection has already happened.

- Serosurveys, like the ones that have been conducted in Delhi, Mumbai, Pune and other cities, only look for the presence of antibodies in people.

- Their purpose is to find out whether a person has been infected with the virus or not, and through random testing of people, estimate the extent of spread of the disease, or prevalence, in a population group.

- Detection of disease-specific antibodies confirms that the person had been infected with the virus in the past.

- But a further test needs to be carried out to detect the presence of neutralising antibodies.

- This is what has happened in the case of Pune. So far, this is the only study that has looked for neutralising antibodies.

6.26 CHANG'E-5

- On November 24, China's Chang'e-5 lunar mission will become the first probe in over four decades to attempt to bring back samples of lunar rock from a previously unexplored portion of the Moon.

- The spacecraft is set to return to Earth around December 15.

- Early in 2019, China's Chang'e-4 probe successfully transmitted images from the far side of the Moon, also referred to as the dark side.

- This was the first probe to land in this portion of the Moon.

- Chang'e-5 probe is the Chinese National Space Administration's (CNSA) lunar sample return mission that is set to launch on November 24 from the Wenchang Space Launch Center on Hainan Island in China.

- The goal of the mission is to land in the Mons Rumker region of the moon, where it will operate for one lunar day, which is two weeks long and return a 2 kg sample of the lunar rock possibly by digging about 2 metres deep into the surface of the Moon.

- The mission comprises a lunar orbiter, a lander and an ascent probe that will lift the lunar samples back into orbit and return them back to Earth.

- The probe is named after the Chinese Moon goddess who is traditionally accompanied by a white or jade rabbit.

6.27 Desalination plant in Mumbai

- Maharashtra announced the setting up of a desalination plant in Mumbai, becoming the fourth state in the country to experiment with the idea.

- A desalination plant turns salt water into water that is fit to drink.

- The most commonly used technology used for the process is reverse osmosis where an external pressure is applied to push solvents from an area of high-solute concentration to an area of low-solute concentration through a membrane.

- The microscopic pores in the membranes allow water molecules through

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but leave salt and most other impurities behind, releasing clean water from the other side.

- Desalination is an expensive way of generating drinking water as it requires a high amount of energy.

- The other problem is the disposal of the by-product — highly concentrated brine — of the desalination process.

- While in most places brine is pumped back into the sea, there have been rising complaints that it ends up severely damaging the local ecology around the plant.

- Worldwide, desalination is seen as one possible answer to stave off water crisis.

- These plants are mostly set up in areas that have access to sea water.

- Desalination has largely been limited to affluent countries in the Middle East and has recently started making inroads in parts of the United States and Australia.

- In India, Tamil Nadu has been the pioneer in using this technology, setting up two desalination plants near Chennai in 2010 and then 2013.

- The other states that have proposed these plants are Gujarat and Andhra Pradesh.

Desalination

98% of the Earth's water is saltwater, found in seas and oceans. The other **2% is freshwater**, for use by homes, farms and industry, but 40% of people cannot access it. Some people have to travel miles to find freshwater. **Desalination technology** provides solution. The most advanced and efficient system is **reverse osmosis**.

Osmosis is a physical phenomenon by which two liquids, in different concentrations, separated by a semi-permeable membrane, come into contact and tend to even themselves out. The liquid with the lower concentration crosses the membrane toward that with highest concentration.

This process is inverted in reverse osmosis. We take in seawater, a highly concentrated solution, and force it through the membrane by adding pressure. On the other side, we obtain salt-free water, while back on the first side the remaining water still holds the salt the membrane prevented from passing through.
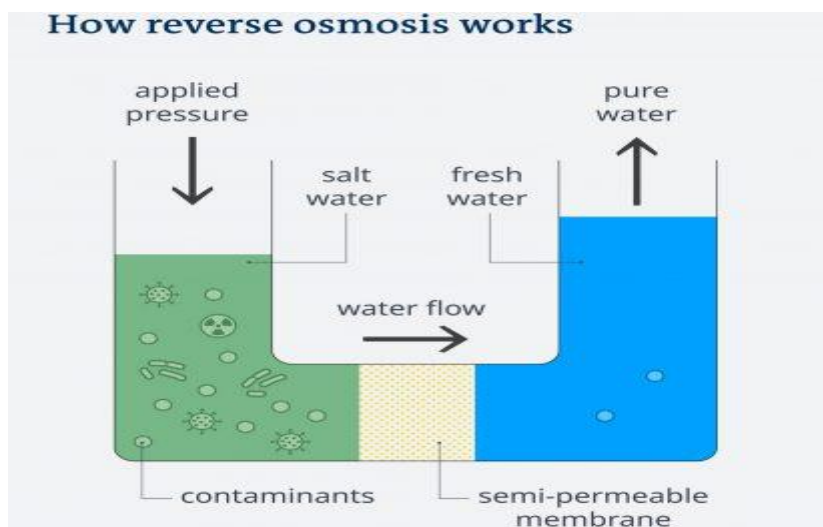
Reverse osmosis process

In reverse osmosis desalination, water is taken from the sea and receives a first treatment to eliminate impurities, oil, seaweed, rubbish, and so on. Once free of organic substances, the saltwater can be subjected to reverse osmosis. After the filtering, we have two streams: one brine and the other freshwater. The brine solution is diluted before being returned to the sea, avoiding high concentrations of salt which could harm the ecosystem. The freshwater passes through a remineralization and chlorination process, after which it is stored in tanks and then sent to the distribution network for consumption.

Reverse osmosis is not only the most advanced desalination system in the world today, it is the most efficient and beneficial for the planet: it generates up to four-and-a half-times fewer greenhouse gas emissions than all other technologies, it doesn't harm the marine environment, and it's able to recover a large part of the energy used in the process.

The product water of the desalination process is generally water with less than 500 mg/1 dissolved solids, which is suitable for most domestic, industrial, and

agricultural uses.

A by-product of desalination is brine. **Brine is a concentrated salt solution (with more than 35 000 mg/1 dissolved solids)** that must be disposed of, generally by discharge into deep saline aquifers or surface waters with a higher salt content. Brine can also be diluted with treated effluent and disposed of by spraying on golf courses and/or other open space areas.

6.28 What is Mission Covid Suraksha?

The Government of India has announced the **stimulus package of Rs. 900 crore** for the **Mission COVID Suraksha,** the Indian Covid-19 Vaccine Development Mission, which will **help the development process of the vaccine candidates.**

Mission COVID Suraksha is India's **targeted effort to enable the development of indigenous, affordable and accessible vaccines** for the country and will complement the ongoing mission of **Atmanirbhar Bharat.**

- The Centre had announced this package during the **third economic stimulus.**
- The Mission with its **end-to-end focus from preclinical development through clinical development and manufacturing and regulatory facilitation for deployment,** would consolidate all available and funded resources towards accelerated product development.
- **Grant:**
  - Phase-I of the Mission has been allotted **Rs. 900 Crore for a period of 12 months.**
  - The grant will be provided to the **Department of Biotechnology** (DBT) for Research and Development (R&D) of Indian **Covid-19** vaccines.
- **Stakeholders:**

- It will be **led by DBT** and implemented by a dedicated **Mission Implementation Unit** at the **Biotechnology Industry Research Assistance Council** (BIRAC).

- The existing activities under **National Bio Pharma Mission** (NBM) and **Ind-CEPI Mission** will provide complementary strengths to this Mission.

  - The DBT is supporting the implementation of the Ind-CEPI Mission, "Epidemic preparedness through rapid vaccine development: Support of Indian vaccine development aligned with the global initiative of the **Coalition for Epidemic Preparedness Innovations** (CEPI)".

  - The Ind-CEPI Mission was approved in **March 2019.**

- **Objectives:**

  - Accelerating pre-clinical and clinical development.

  - Licensure of Covid-19 vaccine candidates that are currently in clinical stages or ready to enter the clinical stage of development.

  - Establishing clinical trial sites.

  - Strengthening the existing central laboratories and suitable facilities for animal studies, production facilities and other testing facilities to support the vaccine development.

  - Supporting the development of common harmonized protocols, training, data management systems, regulatory submissions, internal and external quality management systems and accreditations.

  - Supporting capabilities for process development, cell line development and manufacturing of GMP batches for animal toxicology studies and clinical trials.

  - Developing suitable **Target Product Profile** so that vaccines

being introduced through the mission have preferred characteristics applicable to India.

- **Vaccine Candidates:**

  - A total of **10 vaccine candidates have been supported by DBT** so far at both academia and industry and as on date and **5 vaccine candidates are in human trials.**

    - **Covishield**: The **Serum Institute of India** (SII) is conducting the **phase-3** trial of the **Oxford-Astrazeneca** Covid-19 vaccine.

    - **Covaxin**: The indigenously developed **Bharat Biotech** and the **Indian Council of Medical Research** (ICMR) vaccine has already started the phase III clinical trial.

    - **ZyCoV-D**: Indigenously developed vaccine by **Zydus Cadila** has completed the phase-2 clinical trial in the country.

    - **Sputnik V**: The combined phase 2 and 3 clinical trials of the **Russian Covid-19 vaccine** Sputnik V in India are about to get started.

    - **BNT162b2**: India is focusing on training for conducting phase II and III human clinical trials of the **Pfizer's Covid-19 vaccine candidate** along lines of India's regulatory mechanism.

Clinical Trials

- It is a **systematic study to generate data for discovering or verifying the clinical and pharmacological profile** (including pharmacodynamic and pharmacokinetic) or **adverse effects** of a new drug on humans.

- It is the **only way of establishing the safety and efficacy** of any drug before its introduction in the market for human use and is preceded by animal trials where the efficacy and side effects are observed in animals

and an estimated drug dose is established.

- Clinical trials of drugs developed in India **have to undergo all four phases of trials in India.**

    - Phase I or clinical pharmacology trials or "first in man" study.

    - Phase II or exploratory trials.

    - Phase III or confirmatory trials.

    - Phase IV trials or post-marketing phase.

6.29 ICMR approves dry swab RT-PCR method for Covid detection

Recently, the **Council of Scientific and Industrial Research–Centre for Cellular and Molecular Biology** (CSIR-CCMB) has got the permission of the **Indian Council of Medical Research** (ICMR) to commercially use the **dry swab RNA-extraction free testing method** for the **Covid-19.**

- Dry swab method has a consistency of 96.9%.

- The comparison of **conventional** (swab-VTM-RNA extraction-RT-PCR) and the **simplified** (direct elution from dry swab-RT-qPCR) protocols suggested that dry swabs eluted directly into a simple buffered solution can support molecular detection of SARS-CoV-2 via endpoint RT-PCR without substantially compromising sensitivity.

- **Conventional Method:**

    - In the conventional testing method, **nasopharyngeal or oropharyngeal** swab samples are **collected by sample collection centres** from the suspected coronavirus patients. These are **then transported to testing centres,** sometimes even hundreds of kilometres away.

        - The **nasopharynx** is the **upper part of the pharynx** (throat) **behind the nose.**

        - The **oropharynx** is the **middle part of the pharynx**

just beyond the mouth and includes the back part of the tongue (base of tongue), tonsils, soft palate (back part of the roof of the mouth), and the sides and walls of the throat.

- The swab samples are generally placed in a liquid called **Viral Transport Medium** (VTM) and to avoid leakage, the samples are packed heavily that **adds on to sample processing times** at both the sample collection and testing centres.

- **RNA extraction,** even with automation, takes **four hours for roughly 500 samples.** VTM and RNA extraction both add a **significant burden on money and time required** for mass testing.

- **New and Simplified Method:**

  - Dry swab technique **does not require VTM and RNA extraction process,** and can be directly used for RT-PCR testing.

  - It has the **potential of bringing the costs and time of testing by 40-50%** and the **screening can also be enhanced several-fold** with immediate effect while, at the same time, **making the whole process safer.**

  - It is **easy to implement** with **no requirement of new kits and existing manpower can perform this** with no additional training.

- **Benefits:**

  - It will **scale up the testing.**

  - More economical than **conventional RT-PCR tests.**

  - Quicker results

RT-PCR Test

- **Kary Mullis,** the **American biochemist** invented the PCR technique.

He was awarded the **Nobel Prize for Chemistry in 1993.**

- Under the test, copies of a **segment of DNA** (deoxyribonucleic acid)

are **created using an enzyme called Polymerase.**

- The **'chain reaction'** signifies **how the DNA**

fragments are copied exponentially, where one is copied into two, the two are cop
so on.

- A **fluorescent DNA binding dye** called the **"probe"** is added to DNA

, which shows the presence of the virus on a fluorometer.

- **Covid-19 is made of RNA** (ribonucleic acid), so to detect it, **RNA**

is converted into DNA using a technique called reverse transcription.

- Then the copies of the DNA are then made and amplified.

6.30 Why is land-attack version of BrahMos supersonic cruise missile significant?

Recently, India has successfully **test-fired a land-attack version of the BrahMos supersonic cruise missile** from the Andaman and Nicobar Islands.

- The test by the Army comes over a month after the **Naval version of BrahMos was successfully test fired** from Indian Navy's indigenously-built stealth destroyer INS Chennai.

- **Features of New Land-attack Version:**

  - The **range** of the missile has been **extended to 400 km** from the original 290 km but its **speed** has been maintained at **2.8 Mach or almost three times the speed of sound.**

  - The test was done in a **"top-attack"** configuration.

- Most modern missiles, including BrahMos, **can be fired in both top-attack and direct attack modes.**

  - In **top attack** mode, the missile is required to climb sharply after launch, travel at a certain altitude and then fall on top of the target.

  - In **direct attack** mode, the missile travels at a lower altitude, directly striking the target.

- **Significance of the Test:**

  - These tests **are a display of India's tactical cruise missile triad,** i.e. launch capability from land, sea and air platforms.

    - India has **already deployed a sizable number of the original BrahMos missiles** and other key assets in several strategic locations along the **Line of Actual Control (LAC) with China** in Ladakh and Arunachal Pradesh.

  - The test marks the achievement of a critical milestone in **enhancing India's capability of engaging enemy's vitally important targets** in depth areas.

  - In the last two-and-half months, **India has test fired a number of missiles** including **an anti-radiation missile named Rudram-1** which is planned to be inducted into service by **2022.**

- **Various versions of BrahMos,** including those that can be fired from land, warships, submarines and **Sukhoi-30 fighter jets**, have already been developed and successfully tested in the past.

  - A **hypersonic version** of the missile, capable of reaching **a speed of 5 Mach,** is under development.

BrahMos Missile

- An **amalgamation of the names of Brahmaputra river**

and Moskva river (Russia), BrahMos missiles are **designed, developed and produ Aerospace.**

- BrahMos Aerospace is a **joint venture** company set up by the

Defence Research and Development Organisation (DRDO) and

Mashinostroyenia of Russia.

- It is a **medium-range supersonic cruise missile** which can be **launched**

from submarines, ships, aircraft or land.

- **Cruise missiles** are defined as "an unmanned self-propelled

guided vehicle that sustains flight through aerodynamic lift for most of its flight path

and whose primary mission is to place an ordnance or special payload on a target."

- Depending upon the **speed,** such **missiles are classified as**

Subsonic (around 0.8 Mach), Supersonic (2-3 Mach) and Hypersonic cruise

missiles (more than 5 Mach).

- It is the **world's fastest supersonic cruise missile,** as well as the

fastest anti-ship cruise missile in operation.

- It **operates on the "Fire and Forget" principle,** i.e it does not require

further guidance after launch.

- The missile has a **flight range upto 290-km.** However, **India's**

entry into the Missile Technology Control Regime (MTCR) has extended the

range of the BrahMos missile to reach 450-600 km.

SOCIAL ISSUES AND DEVELOPMENT

7.1 Euthanasia or 'Assisted Dying' Act

As per preliminary referendum results, a majority of voters in New Zealand have voted in favour of the End of Life Choice Act 2019.

What is the 'End of Life Choice Act' 2019?

- The act is meant to **give certain terminally ill people the option of requesting medical assistance to end their lives** and to establish a lawful process for assisting eligible persons who are able to exercise that option.

- The opponents of the Act maintain that **it lacks oversight and safeguards** and have pointed out issues with the eligibility criteria such as the **age limit of 18 years and the "arbitrary" nature of the 6-month prognosis**.

What is assisted dying?

- As per the Act, **assisted dying means when a person's doctor or nurse gives them medication to relieve their suffering** by bringing on death or when a person takes the medication themselves.

- Therefore, the act interprets assisted dying as **referring to both euthanasia and assisted suicide**. While the former refers to the act of deliberately ending a person's life to end their suffering, the latter refers to assisting a person to kill themselves.

- In some countries such as **in the UK, both euthanasia and assisted suicide are illegal**. In the UK, while euthanasia is regarded as manslaughter or murder, assisted suicide is punishable by up to 14 years in prison. However, trying to kill yourself is not an illegal act in the country.

- As per New Zealand's act, the provisions of the law are limited to terminally ill people and are subject to the fulfilment of various criteria.

Eligibility criteria for assisted dying

In order to be eligible for assisted dying, the individual must be 18 years or older, be a citizen or permanent resident of New Zealand, suffer from a terminal illness that is likely to end their life in less than six months, have a significant and ongoing decline in physical capability, experience unbearable suffering that cannot be eased and they

should be able to make an informed decision about assisted dying. The individual should meet all of the criteria to be eligible. A person is not eligible for assisted dying if they are suffering from a mental disorder or a mental illness.

7.2 Central government to extend the fortified rice scheme to 112 districts

In order to fight chronic **anaemia** and **undernutrition,** the government is making plans to distribute **fortified rice** through the **Integrated Child Development Services** and **Mid Day Meal Schemes** across the country from the year 2021, with special focus on **Aspirational districts.**

- This was decided in a review meeting of an **existing pilot scheme** which aims to distribute fortified rice in 15 districts.

- **Existing Scheme:** The centrally-sponsored pilot scheme was approved in February 2019, for a three-year period from 2019-20 onwards. Under it, one district each in 15 predominantly rice-eating States was selected.

  - It was found that, out of 15 states only 5 — Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Chhattisgarh — have started the distribution of fortified rice in their identified pilot districts.

  - In other words, the scheme has only been implemented in five districts so far, although more than half the project duration is over.

- **Renewed Push:** The Food Corporation of India has now been mandated to scale up the annual supply of **Fortified Rice Kernels (FRK)** from the **current 15,000 tonnes to at least 1.3 lakh tonnes.**

  - To cover PDS, anganwadis and mid-day meals in the 112 aspirational districts, annual supply capacity would need to be increased to about 1.3 lakh tonnes.

  - Further, existing rice mills will be equipped with Blending Machines for mixing FRK with normal rice.

- **Other Related Initiatives:**

  - **Milk Fortification Project** was launched by the **National Dairy Development Board (NDDB) in collaboration with the World Bank and Tata Trusts,** as a pilot project in 2017. It is intended to address vitamin deficiency in consumers.

- Recently, the month of September was observed as **Poshan Maah i.e. Nutrition month.** It includes a month-long activities focussed on antenatal care, optimal breastfeeding, anaemia, growth monitoring, girls education, diet, right age of marriage, hygiene and sanitation and eating healthy (food fortification).

Fortified Rice Kernels

- Fortifying rice involves grinding broken rice into powder, mixing it with nutrients, and then shaping it into rice-like kernels using an extrusion process.

- These fortified kernels are then mixed with normal rice in a ratio ranging from 1:50 to 1:200.

Integrated Child Development Services (ICDS)

- It was launched on 2nd October, 1975, the **Integrated Child Development Services (ICDS) Scheme** offers a package of six services (Supplementary Nutrition, Pre-school non-formal education, Nutrition & health education, Immunization, Health check-up and Referral services) to children in the age group of 0-6 years, pregnant women and lactating mothers.

Mid-day Meal Scheme

- It was launched in 1995 as a centrally sponsored scheme.

- It provides that every child within the age group of six to fourteen years studying in classes I to VIII who enrols and attends the school shall be provided with a hot cooked meal, free of charge every day except on school holidays.

- The **Mid Day Meal Scheme** comes under the HRD Ministry's Department of School Education and Literacy.

Aspirational Districts

- The programme was launched in January 2018 with the aim of expeditiously improving the socio-economic status of 117 districts through cooperative and competitive federalism.

- The **Aspirational Districts programme** aims to rapidly transform districts that have been showing relatively less progress in key social areas, and have

emerged as pockets of under-development, thereby posing a challenge to balanced regional development.

Food Fortification

- **About:** According to the **World Health Organisation (WHO)**, food fortification is defined as the practice of deliberately increasing the content of essential micronutrients so as to improve the nutritional quality of the food supply and to provide a public health benefit with minimal risk to health.

- **Types:** Food fortification can be done for foods widely consumed by the general population (mass fortification), to fortify foods designed for specific population subgroups, such as complementary foods for young children or rations for displaced populations (targeted fortification) and/or to allow food manufacturers to voluntarily fortify foods available in the marketplace (market-driven fortification).

- **Procedure:** The extent to which a national or regional food supply is fortified varies considerably. The concentration of just one micronutrient might be increased in a single foodstuff (e.g. the iodization of salt), or, at the other end of the scale, there might be a whole range of food–micronutrient combinations.

- In October 2016, **Food Safety and Standards Authority Of India (FSSAI)** operationalized the **Food Safety and Standards (Fortification of Foods) Regulations, 2016** for fortifying staples namely Wheat Flour and Rice (with Iron, Vitamin B12 and Folic Acid), Milk and Edible Oil (with Vitamins A and D) and Double Fortified Salt (with Iodine and Iron) to reduce the high burden of micronutrient malnutrition in India.

- India's **National Nutritional strategy, 2017,** had listed food fortification as one of the interventions to address anaemia, vitamin A and iodine deficiencies apart from supplementation and dietary diversification.

7.3 Internationalisation of Education

Minister of Education has confirmed that through 'Study in India, Stay in India and Internationalisation of Education', we are committed to establishing India as a global hub of education. To ensure high quality of education, it is also necessary that we move forward with cooperation, coordination and agreement with the leading universities of

the world.

In 2018, the Union Ministry of Education launched an ambitious "Study in India" programme to project India as a higher education designation by attracting and facilitating inward mobility of foreign students from 34 target countries (representing Africa, Middle East, and SAARC regions), thereby increasing India's market share of global education exports.

Ministry of Human Resource Development (now Ministry of Education) had approved 'Study in India' programme with, inter-alia, the following objectives:

- To improve the soft power of India with focus on the neighbouring countries and use it as a tool in diplomacy.

- To boost the number of inbound International students in India.

- To double India's market share of global education exports from less than 1 percent to 2 percent.

- Increase in contribution of international student in the form of direct spends, indirect spends, spillover effects.

- Improvement in overall quality of higher education.

- Increase in global ranking of India as educational destination.

- To reduce the export – Import imbalance in the number of International students.

- Growth of India's global market share of International students

Road ahead

The 'Study in India' programme launched by the Government in 2018 needs to be executed strategically on a mission mode by engaging relevant stakeholders.

- Appoint an education counsellor at every Indian embassy abroad in order to help promote Indian higher education and the benefits of studying in India.

- Create a strong scholarship programme that will encourage the best brains to choose India as a study option.

- Develop 'student cities' that should be safe along with adequate infrastructural

and logistical supports.

- Develop niche programmes in the areas that India has expertise in , such as life sciences, space sciences, creative disciplines, etc.

- Create a framework to map the credits of Indian programmes with a global framework so that there is a seamless mobility/transfer of credits.

- A joint working group should be created with inter-ministerial collaborations at the federal level and city level administrators along with leaders of leading public and private HEIs to develop a conducive ecosystem.

- Effective industry engagement for apprenticeships and employment, safe and secure living environment, state-of-the-art infrastructure, etc. are some of the other critical prerequisites to boost international mobility of foreign students to India.

7.4 National Agricultural Education Policy

The first National Agricultural Education Policy is set to bring academic credit banks and degree programmes with multiple entry and exit options to the 74 universities focused on crop sciences, fisheries, veterinary and dairy training and research.

A six-member committee of Vice-Chancellors has been asked to submit a draft policy document to the Agriculture Ministry soon. More than 45,000 students are admitted into agricultural universities every year, and the new policy is set to usher in some changes to their academic life.

Internship programme

The **Student READY (Rural Entrepreneurship Awareness Development Yojana) programme** requires all students to undertake a six-month internship, usually in their fourth year, to gain hands-on training, rural awareness, industry experience, research expertise and entrepreneurship skills.

Challenges

- One major challenge is how to ensure that this experiential learning is made available to all students if we implement the multiple entry-exit system. Even if a student leaves after two or three years, even with a diploma, he should not

miss out on it.

- Another major challenge for agricultural universities could be the push for multi-disciplinarity. Our universities have been modelled on the land grant pattern, with a focus on research and extension, and deep community connections, driven by the philosophy that farmers need holistic solutions to their problems. However, in recent years, several domain specific universities in horticulture, veterinary science and fisheries sciences have come up. How to incorporate humanities and social sciences into these settings could be a big challenge.

7.5 Progress of Vaccination in India

India has made significant progress in its vaccination coverage **to prevent child pneumonia and diarrhoea deaths**, according to the latest **annual Pneumonia and Diarrhoea Progress Report** released by the **International Vaccine Access Centre (IVAC)** recently.

Performance of India

- Although overall the world's health systems are falling short of ensuring that children have access to prevention and treatment services, India has achieved the global target of 90% coverage for three of the five vaccines whose coverage is monitored in the report.

- These vaccines are **Diphtheria, Pertussis and Tetanus (DPT) vaccine, Measles-containing-vaccine first dose, Haemophilus influenzae type B, pneumococcal conjugate vaccine (PCV), and rotavirus vaccine**.

- While India's coverage of rotavirus vaccine increased by 18 percentage points (35% rotavirus coverage in 2018 expanded to 53% in 2019), coverage against pneumococcal pneumonia increased by 9 percentage points (6% PCV coverage in 2018 expanded to 15% in 2019).

- In 2019, India completed the "100-day agenda" — an unprecedented national scaleup of rotavirus vaccine. This landmark vaccine expansion will help protect 26 million children born each year against life-threatening cases of rotavirus diarrhoea, stated the report.

- The report tracked progress by analysing 10 indicators from the latest available

data on how countries are delivering key interventions — including **breastfeeding, immunisation, care-seeking and antibiotics, oral rehydration solution (ORS), and zinc supplementation** — shown to prevent pneumonia and diarrhoea deaths. Of the 15 focus countries included in the report, **India is one of just four countries that exceeded targets for exclusive breastfeeding**.

- However, nearly every country included in the report **lagged in access to treatments against pneumonia and diarrhoea**. India failed to reach all four targets for treatment, the report stated, adding that the treatment for diarrhoea had the lowest coverage, with only 51% of children receiving ORS and 20% getting zinc.

Indradhanush Mission

- To strengthen and reenergise the programme and achieve full immunisation coverage for all children and pregnant women at a rapid pace, the Government of India launched "Mission Indradhanush" in December 2014.

- Through UIP, Government of India is providing vaccination free of cost against vaccine preventable diseases include diphtheria, pertussis, tetanus, polio, measles, severe form of childhood tuberculosis, hepatitis B, meningitis and pneumonia (Hemophilus influenza type B infections), Japanese encephalitis (JE) in JE endemic districts with introduction of newer vaccines such as rotavirus vaccine, IPV, adult JE vaccine, pneumococcal conjugate vaccine (PCV) and measles-rubella (MR) vaccine in UIP/national immunisation programme.

Salient features of Intensified Mission Indradhanush 2.0

The salient features of IMI 2.0 are:

- Immunisation activity will be in four rounds over 7 working days excluding the RI days, Sundays and holidays.

- Enhanced immunisation session with flexible timing, mobile session and mobilisation by other departments.

- Enhanced focus on left outs, dropouts, and resistant families and hard to reach areas.

- Focus on urban, underserved population and tribal areas.

- Inter-ministerial and inter-departmental coordination.

- Enhance political, administrative and financial commitment, through advocacy.

- Intensified Mission Indradhanush immunisation drive, consisting of 4 rounds of immunisation will be conducted in the selected districts and urban cities between Dec 2019 – March 2020.

Goal of Mission Indradhanush

The ultimate goal of Mission Indradhanush is to ensure full immunisation with all available vaccines for children up to two years of age and pregnant women. The Government has identified 201 high focus districts across 28 states in the country that have the highest number of partially immunised and unimmunised children.

Performance

Earlier the increase in full immunisation coverage was 1% per year which has increased to 6.7% per year through the first two phases of Mission Indradhanush. Four phases of Mission Indradhanush have been conducted till August 2017 and more than 2.53 crore children and 68 lakh pregnant women have been vaccinated.

7.6 Indian States – Sex Ratio

Arunachal Pradesh recorded the best sex ratio in the country, while Manipur recorded the worst, according to the 2018 report on "**Vital statistics of India based on the Civil Registration System**" published by the Registrar-General of India.

Sex ratio at birth is the number of females born per 1,000 males. The sex ratio is 943 in India as per the 2011 census. That is, there are 943 females for every 1000 males.

Performance of Indian states

- Arunachal Pradesh recorded 1,084 females born per thousand males, followed by Nagaland (965) Mizoram (964), Kerala (963) and Karnataka (957). The worst was reported in Manipur (757), Lakshadweep (839) and Daman & Diu (877), Punjab (896) and Gujarat (897). Delhi recorded a sex ratio of 929,

Haryana 914 and Jammu and Kashmir 952.

- The number of registered births increased to 2.33 crore in 2018 from 2.21 crore registered births the previous year. The level of registration of births has increased to 89.3% in 2018 from 81.3% in 2009.

- The prescribed time limit for registration of birth or death is 21 days. Some States, however, register the births and deaths even after a year.

Registrar General of India

- It is under the **Ministry of Home Affairs**.

- Apart from conducting the **Population Census** and monitoring the implementation of the **Registration of Births and Deaths** in the country, it has been giving **estimates on fertility and mortality** using the **Sample Registration System (SRS).**

- SRS is the **largest demographic sample survey** in the country that among other indicators provide direct estimates of maternal mortality through a nationally representative sample.

7.7 Safai Mitra Suraksha Challenge

- Recently, the Union Minister of Housing and Urban Affairs has launched the Safai Mitra Suraksha Challenge.

- It aims to ensure that no life of any sewer or septic tank cleaner is ever lost again owing to the issue of 'hazardous cleaning.

- It is in line with Prime Minister's vision who has always placed the safety and dignity of sanitation workers at the core of the Swachh Bharat Mission-Urban (SBM-U).

- The challenge has been launched in 243 cities to mechanize all sewer and septic tank cleaning operations by 30th April 2021.

- The challenge will focus extensively on creating citizen awareness on this critical issue along with infrastructure creation for mechanized cleaning and capacity building of workforce.

- The Government of India is committed to ensure that no person needs to

enter a sewer or septic tank, unless absolutely unavoidable in the interest of greater public hygiene.

- The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (2013) and various judgements of the Supreme Court expressly prohibit hazardous cleaning i.e. manual entry into a septic tank or sewer without protective gear and observing operating procedures.

- India still continues to witness over hundred deaths per year due to manual scavenging.

7.8 Awaas Diwas

- Rural Development Minister Narendra Singh Tomar virtually interacted with Rural Development Ministers and officials of the States on the occasion of "Awaas Diwas" celebration.

- During the interaction, Mr Tomar mentioned that Pradhan Mantri Awaas Yojana -Gramin is not only credited with the task of providing houses to beneficiaries, but it also serves in protecting the dignity of the households.

Awaas Diwas is not just a day to celebrate a scheme, but a day to connect with crores of rural households, who have been greatly benefited by this scheme.

- The Rural Housing Scheme, Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) was launched by the Prime Minister Narendra Modi on 20th of November 2016 at Agra, Uttar Pradesh.

- To commemorate the launch of PMAY-G, which aims to provide "Housing for All" by 2022, it was decided to celebrate 20th November every year as Awaas Diwas.

- The program envisages the completion of 2.95 crore houses with all basic amenities by the year 2022.

- In the first phase of the scheme from 2016-17 to 2018-19, a target for construction of one crore pucca houses were set.

- In the second phase of the scheme starting from 2019-20 to 2021-22, the target of construction of the remaining 1.95 crore houses has been set.

- So far 1.75 Crore PMAY-G houses have been sanctioned and 1.20 crore houses have been completed against the allocated cumulative target of 2.26 crore houses

7.9 Virtual Court (traffic) and e-Challan project

- The Virtual Court (traffic) and e-Challan project have been recently inaugurated in Assam by Shri Sarbananda Sonowal, the chief minister of Assam.

- The Information and Communication Technology (ICT) Committee of Gauhati High Court in association with Government of Assam and Assam Police, under the aegis of e-Committee of Supreme Court of India, are spearheading the project in the State.

- Maharashtra's 2nd virtual court called "NyayKaushal" was recently inaugurated on 31st October by Shri Arvind Bobde, the Chief Justice of India and Justice D.Y. Chandrachud of the Supreme Court at Judicial Officers Training Institute in Nagpur.

- E-challan solution is an initiative of the Union Ministry of Road Transport and Highways (MoRTH) whereas the software has been developed by National Informatics Centre (NIC).

- It will replace the present concept of manual challan with an electronically generated digital challan.

- Virtual court is an initiative of E-Commitee of Supreme Court along with Department of Justice, Ministry of Law& Justice, Government of India.

- Virtual Court is an online court being managed by Virtual Judge (which is not a person but an algorithm) whose jurisdiction can be extended to entire state and working hours may be 24X7.

- There is no brick& mortar building of the court.

- In a trial by Virtual Court, neither litigant shall come to the court nor will Judge have to sit physically in the court to adjudicate the case.

- The communication may only be in electronic form and the sentencing and further payment of fine or compensation will also be online.

- Only single process is allowed and there can be no argument.

- It may be proactive admission of guilt by the accused or proactive compliance of the cause by defendant on receipt of the summons in electronic form.

- On payment of Fine, such matters may be treated as disposed off.

- Citizen neither have to wait in lines in courts nor have to confront Traffic Police man.

- It will increase productivity of citizen as well as judicial officers.

- It will promote greater accountability and less corruption in Traffic Police Department thus bettering life of people.

- In Assam due to Virtual Court work of 10 judges will be done by only single judge thus sparing 9 Judges for judicial work.

7.10 Digital Application is called "ANANDA"

- Life Insurance Corporation of India has launched a digital application for agents for onboarding to get a life insurance policy.

- The Digital Application is called "ANANDA", which is an acronym for Atma Nirbhar Agents NewBusiness Digital Application.

- The Digital application is a tool for the onboarding process to get the life insurance policy through a paperless module with the help of the agent or intermediary.

- ANANDA will enable an agent to complete a policy even without physically meeting the customer.

- This application has evoked tremendous response from all intermediaries of the Corporation.

- LIC has come up with this initiative to facilitate the process of proposal completion which is totally paperless and completely digital.

- The process of new business completion has been re-engineered by converting physical formats into digital ones.

7.11 TN banned Online game

- Tamil Nadu Governor Banwarilal Purohit promulgated an ordinance that banned online gaming in the state, with a fine up to Rs 5,000 and imprisonment of up to six months.

- The earliest versions of community-based games were gaming arcades, which were very popular in the US and Japan in the early 1990s.

- These arcades required the gamer to buy in-game time with some chips. From the arcade, the games moved to house consoles, and then further to personal computers.

- With the invention of the internet and the arrival of connectivity on personal computers, these multiplayer games saw players hosting gaming parties using local area networks.

- With the arrival of affordable internet, all the arcade-based multiplayer games moved online.

- These days, though nearly all games are played online when the user connects their device to a central server hosted by the gaming company, most of them are free and meant only for entertainment.

- Multiplayer games such as Defense of the Ancients or Dota, Players Unknown's Battleground or PUBG, Counter-Strike (CS) though free for most users, give the option of buying in-game additions to the player's avatar.

- Other multiplayer card games such as Rummy, Blackjack, and Poker require the user to invest some money to enter the game to play with other players across the globe.

7.12 Jal Jeevan Mission

A multi-disciplinary Technical Committee in the Department of Drinking Water and Sanitation, Ministry of Jal Shakti has recommended five technologies in Drinking Water and Sanitation to provide Field Level Solutions to the States.

The Ministry of Jal Shakti gives primacy to the infusion and deployment of innovative technological solutions to realize the ambitious objective of the Jal Jeevan Mission to provide Functional Household Tap Connection to every rural home by 2024.

- The first of the five technologies that have been recommended is Grundfos AQpure, a solar energy based water treatment plant based on ultra-filtration.

- The Second is Janajal Water on Wheel, an IoT based electric vehicle based on GPS location to enable delivery of safe water to the doorstep of households.

- Another technology is Presto Online Chlorinator, a non-electricity dependent online chlorinator for disinfection of water for removal of bacterial contamination.

- Johkasou technology recommended is an inbuilt sewage and Kitchen and bath water treatment system having advanced anaerobic-aerobic configuration that can be installed underground.

- The last innovative technology is FBTec®, a site assembled in a decentralised sewage treatment system using fixed filter media.

7.13 FDP program

- Union Education Minister, Shri Ramesh Pokhriyal 'Nishank' today inaugurated 46 online AICTE Training and Learning (ATAL) Academy Faculty Development Programmes (FDPs) to train teachers of higher

education institutions associated with All India Council of Technical Education (AICTE) in thrust and emerging areas in technology.

- The FDPs will be conducted in 22 Indian states.

- On the occasion, the Shri Pokhriyal said that it is a matter of pride for the ATAL Academy to be included in the Book of World Records.

- He informed that the London-based organization has recognized the FDPs as a world record, under which 1,000 online FDPs in over 100 emerging areas will benefit one lakh faculty members across premier institutions like IITs, NITs, and IIITs.

- This year the online FDP program will cost Rs 10 crores, he added.

- The Minister mentioned that the ATAL Academy is conducting FDPs in online mode, including the process of registration till certificate disbursal mechanism.

- In the year 2020-21, new thrust areas in the field of Engineering, Management, Life Skills, Design & Media have been incorporated.

- The online FDPs will be conducted according to the new National Education Policy (2020).

- Out of 1000, 499 FDPs have already been completed with more than 70,000 faculty members already trained. In 2019-20, 185 five-day face-to-face FDPs in nine thrust areas — Artificial Intelligence, Internet of Things, Block-chain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing & Design, and Augmented Reality/Virtual Reality — benefited around 10,000 participants.

- The main objective of ATAL Academy is to provide quality technical education in the country and to promote research and entrepreneurship through training in various emerging fields.

- IITs, IIITs, NITs CU and research labs are organizing these ATAL FDPs.

7.14 Tunnel boring machine has been stuck in Mumbai

A tunnel boring machine has been stuck in Mumbai for the past one year. The Brihanmumbai Municipal Corporation (BMC) has not been able to retrieve it due to lack of expertise and an overreliance on foreign entities to operate these machines.

- With major cities in India opting for urban transportation systems underground, Tunnel Boring Machines, that help dig tunnels underground, are being deployed extensively in the country.

- They are used to excavate tunnels through a variety of soil and rock strata — from hard rock to sand.

- These machines are capable of digging tunnels with diameters 3.3 feet to 58 feet.

- In India, TBMs have been deployed in Delhi, Mumbai, Pune, Chennai, Bangalore and Kolkata, among others, to help build underground Metro lines.

- These TBMs are also being used to help build water tunnels as well as the coastal road in Mumbai.

- The global TBM market is at present dominated by China.

- As per vendors, nearly 90 per cent of the TBMs deployed across India have a Chinese connection.

- China has a dominating presence in the heavy equipment machinery segment, and officials claim it is not possible to replace the sources of these types of equipment overnight.

7.15 Portal for transgender persons

- The ministry of social justice and empowerment on Wednesday launched a portal that will allow transgender persons to apply online for certification of their self-perceived gender identity.

- Launched by Union minister Thawar Chand Gehlot, the portal will allow transgender persons to upload an affidavit declaring their gender identity, which will then become the basis for their identity certificates to be

issued by the district magistrate.

- One is expected to get an identity card within 30 days of the district authorities reviewing the application.

- Following the passage of the Transgender Persons (Protection of Rights) Act 2019, the law allows for self-perceived identification by an applicant for an identity certificate.

- Transgender persons who have already recorded a change in gender identity, prior to the enactment of the law, will not need to apply for a certificate of identity under the rules notified on September 25.

- The portal will also enable them to register their grievances and help build a database of the community.

- The ministry will also open shelter homes for trans people in each state.

- The first such home was inaugurated in Gujarat today and will offer shelter and skill training to those in need.

7.16 Ordinance to curb forcible or "dishonest" religious conversions

The Uttar Pradesh government approved a draft ordinance to curb forcible or "dishonest" religious conversions including those for the sake of marriage, which could land violators in jail for up to 10 years.

- Under the proposed law, a marriage will be declared "null and void" if the conversion of a woman is solely for that purpose.

- Those wishing to change their religion after marriage need to apply to the district magistrate, according to the draft ordinance which would become law after its promulgation by the state Governor.

- The Prohibition of Unlawful Religious Conversion Ordinance, 2020, recommends 1-5 years imprisonment if an accused fails to prove that the conversion of the woman was not for marriage or by use of force, allurement etc.

- The jail sentence for the offence would be 3-10 years if the woman is from the SC/ST community or is seen as part of mass conversion.

- The notice period to the district magistrate for the religious conversion has been doubled to two months from a month in an earlier draft.

7.17HRMS

- Indian Railway has launched a completely digitised online Human Resource Management System (HRMS).

- Railway Board Chairman and CEO Vinod Kumar Yadav launched the system for railway employees and pensioners through video conferencing.

- The HRMS system is a high thrust project for the Indian Railways to leverage improved productivity and employee satisfaction.

- The move is aimed at improving the efficiency and productivity of the Indian Railway system and a step towards realizing PM Narendra Modi's vision of transforming India into a digitally empowered society and knowledge economy.

- The Human Resource Management System (HRMS) is expected to create a big impact on the functioning of all the employees and make them more tech-savvy.

- Employee Self Service (ESS) module: This module will help railway employees to interact with various modules of HRMS including communication regarding change of data.

- Provident Fund (PF) Advance module: This module will enable Railway employees to check their PF balance and apply for PF advance online. The employees will also be able to see the status of their PF application online.

- Settlement module: This module digitizes the entire settlement process of retiring employees. It will enable employees to fill their settlement and pension booklet online.

- The service details will be fetched online and pension will be processed online as well. This will eliminate the use of paper and facilitate monitoring for timely processing of settlement dues of retiring employees.

7.18 SDG Investor Map for India

- United Nations Development Programme (UNDP) and Invest India have launched the SDG Investor Map for India with an aim to help India promote Sustainable Development.

- Under this, it had laid 18 Investment Opportunities Areas (IOAs) in six critical SDG enabling sectors in order to balance commercial returns with catalytic development impact.

- The Map will bridge the gap between high-level development targets and the need for commercially viable returns.

- Investing in opportunities will enhance employment and employability and push forward the inclusion of underserved communities and leverage technology.

- IOAs will create job opportunities and industrialization needs.

- It focused on inclusive business models and leverage digital technologies to deliver commercial returns and impact at scale.

- IOAs include Digital Platforms to service input/output needs of farmers to enable easy access to markets (Agriculture), Online Supplementary Education for K12' (Education), Access to credit by Micro, Small and Medium Enterprises and Low-Income Groups especially through digital platforms for Income Generating Purposes' (Financial Services), and Tech-Enabled Remote Care Services (Healthcare).

7.19 Honey FPOs under the "Formation & Promotion of 10,000 FPOs" Scheme

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Recently, the **Minister of Agriculture and Farmers' Welfare** has virtually inaugurated the **Honey Farmer Producer Organisation** (FPO) **Programme** of the **National Agricultural Cooperative Marketing Federation of India Limited** (NAFED).

- A **Producer Organisation** (PO) is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen, etc.

  - FPO is one type of PO where the members are farmers.

- **Apiculture or beekeeping** is the care and management of honey bees for the production of honey and wax. In this method, bees are bred commercially in apiaries, an area where a lot of beehives can be placed.

- The programme has been launched under the **Formation and Promotion of FPOs.**

  - It is a new **Central Sector Scheme** for the promotion of **10,000 new FPOs.**

  - Under it, the **National Level Project Management Advisory and Fund Sanctioning Committee** (N-PMAFSC) had allocated FPO clusters for **2020-21** to all implementing agencies.

    - Initially there will be three implementing agencies to form and promote FPOs, namely **Small Farmers Agri-business Consortium** (SFAC), **National Cooperative Development Corporation** (NCDC) and **National Bank for Agriculture and Rural Development** (NABARD).

    - **NAFED** has been appointed as the 4th national implementing agency.

    - States may also, if so desire, nominate their implementing agency in consultation with the **Department of Agriculture, Cooperation and Farmers' Welfare** (DAC&FW).

- FPOs will be developed by specialist **Cluster Based Business Organizations** (CBBOs) engaged by implementing agencies.

- NAFED, through CBBOs and the **Indian Society of Agribusiness Professionals** (ISAP) has initiated the formation and promotion of FPOs of beekeepers and honey collectors in 5 states of India.

  - These 5 locations are **East Champaran** (Bihar), **Morena** (Madhya Pradesh), **Bharatpur** (Rajasthan), **Mathura** (Uttar Pradesh) **and Sunderbans** (West Bengal).

  - The **first Honey FPO** has been registered in the state of Madhya Pradesh under the **National Beekeeping and Honey Mission** (NBHM).

- **Benefits:**

  - **Skill Upgradation** in scientific beekeeping.

  - State of the art **infrastructural facilities** for processing honey and allied beekeeping products like **bee's wax, propolis, royal jelly, bee venom,** etc.

  - Quality upgradation by **quality control laboratories.**

  - Better **supply chain management** by improving **collection, storage, bottling and marketing centres.**

  - Promotion and Formation of FPOs is the first step for **converting Krishi into Atmanirbhar Krishi.**

- **Other Efforts by Government to Promote Beekeeping:**

  - Government is promoting beekeeping as part of its **aim to double farmers' income** and **ensure tribal upliftment.**

  - The Government has **allocated Rs. 500 crore** towards beekeeping under the **Atmanirbhar Abhiyan.**

  - **Apiary on Wheels:**

    - It is a unique concept designed by the **Khadi and**

Village Industries Commission (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.

- The **National Bee Board** has created four modules to impart training as part of the NBHM.

  - Under it, 30 lakh farmers have been trained in beekeeping and are also being financially supported by the Government.

  - Mini Mission 1 and Mini Mission 2 are schemes under the mission.

- The Government launched **NBHM** as part of **'Sweet Revolution'.**

  - The 'Sweet Revolution' was launched in **2016** to **promote beekeeping and associated activities.**

National Agricultural Cooperative Marketing Federation of India Ltd

- It is an **apex organization of marketing cooperatives** for agricultural produce in India.

- It was founded on **2ⁿᵈ October 1958** and is registered under the **Multi-State Co-operative Societies Act, 2002.**

- NAFED is now **one of the largest procurement as well as marketing agencies** for agricultural products in India.

- **Objectives:**

  - To organize, promote and develop marketing, processing and storage of agricultural, horticultural and forest produce.

- To distribute agricultural machinery, implements and other

inputs, undertake inter-state, import and export trade, wholesale or retail as the case m

- To act and assist for technical advice in agricultural production

for the promotion and the working of its members, partners, associates and

cooperative marketing, processing and supply societies in India.

National Bee Board

- SFAC registered the NBB as a society under the **Societies Registration**

Act, 1860 in 2000 and it was reconstituted (with the secretary as chairman) in June 20

- Objective:

  - Overall **development of beekeeping by promoting scientific**

beekeeping in India to increase the productivity of crops through pollination and in
production for increasing the income of the beekeepers/farmers.

- Presently NBB is implementing **National Horticulture Mission**

(NHM) **and Horticulture Mission for North East and Himalayan State.**

ENVIRONMENT

8.1 NCR Air Quality Ordinance, 2020

With the President signing the **Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2020** recently, a statutory authority to track and combat air pollution in and around the National Capital Region has come into existence.

Objectives

The Commission will **supersede bodies such as the central and state pollution control boards of Delhi, Punjab, Haryana, UP and Rajasthan** and will have the

powers to issue directions to these state governments on issues pertaining to air pollution.

What has been changed by the ordinance?

- The one body with powers similar to the new Commission's was the **Environment Pollution (Prevention and Control) Authority (EPCA)**.

- It was **not a statutory body** but drew legitimacy from the Supreme Court, which has been looking at cases of air pollution as part of the judgment in **M C Mehta vs Union of India (1988)**.

- The EPCA was **not supported by a legal framework in the form of a law**. It did have the authority to issue fines or directions and guidelines to the governments in other states. I**t had no state representatives, just two permanent members**. The Commission, on the other hand, **will have representation from the state**.

Role of the Commission

- The ordinance makes it clear that **state as well as central bodies will not have jurisdiction over matters related to air pollution.**

- The ordinance says **the Commission will look at coordination between states, planning and execution of policy and interventions**, operations of industry, inspections, research into the causes of pollution etc. Experts say the ordinance means that **the power to issue fines may also lie with the new Commission**.

- Officials in the Delhi Environment Department said the Commission will, in a way, **erase the relevance of state pollution control bodies** since they do not have the powers to make any autonomous decisions anymore.

- In case the directions issued by a state and the Commission clash, **the decision of the Commission will be implemented.**

- As per the Ordinance, **only NGT, and not civil courts**, is authorised to hear cases where the commission is involved.

8.2 Corals in Mumbai

Recently, the Mumbai civic body received the green signal from the Principal Chief Conservator of Forests (Wildlife), Nagpur, for translocating the corals off the coast of Mumbai for the Rs 12,700-crore Mumbai Coastal Road Project.

- Corals exhibit **characteristics of plants, but are marine animals** that are related to jellyfish and anemones.

- Coral polyps are **tiny, soft-bodied organisms**. At their base is **a hard, protective limestone skeleton called a calcite**, which forms the structure of coral reefs.

- **Reefs** begin when **a polyp attaches itself to a rock on the seafloor**, then divides, or buds, into thousands of clones. The polyp calcites connect to one another, **creating a colony that acts as a single organism.**

- As colonies grow over hundreds and thousands of years, they join with other colonies, and become **reefs**.

- There are **soft corals** as well, which are **non-reef-building**, and resemble bushes, grasses, trees.

The Mumbai coast hosts a tiny population of corals. The corals found across rocky patches along the Mumbai coastline are mostly fast-growing and non-reef building corals. Small coral colonies have been documented off Marine Drive, Geeta Nagar in Colaba, Haji Ali, and Worli.

How are corals translocated?

- In a three-year-long project in Sindhudurg, corals were cultivated — **fragments of corals were taken and attached to concrete frames with the help of nylon threads** — and then left on ocean beds at a depth suitable for their growth.

- In a project at the Andaman islands, ReefWatch Marine Conservation has transplanted coral fragments on to nine artificial structures, totalling a 20-square-metre area. The project has been on since 2017.

Significance of coral reefs

- Coral reefs are like **underwater cities that support marine life**. According to the UN Environment programme, **they provide at least half a billion people**

around the world with food security and livelihoods.

- Coral reefs also act as '**wave breaks'** between the sea and the coastline and **minimise the impact of sea erosion**. In India, they are protected in the same way as the tiger or elephant, under **Schedule I of the Wildlife Protection Act (WPA), 1972**.

Threat to coral reefs

- **Climate change** remains one of the biggest threats to corals.

- Around the world, this threat has been visible in the **"bleaching" of coral**s — is a process during which corals, under stress from warm weather, **expel the algae that give corals their brilliant colours and live in their tissues and produce their food**.

- The Great Barrier Reef off the coast of Australia, a UNESCO World Heritage site and home to one of the largest collections of coral reefs on the planet, has suffered six mass bleaching events due to warmer than normal ocean temperatures: in 1998, 2002, 2006, 2016, 2017, and now 2020.

- Experts have documented bleaching of the corals along Mumbai's coastline as well.

8.3 Typhoon Goni: Philippines hit by year's most powerful storm

Recently, Typhoon Goni has made landfall in the **eastern Philippines.**

- The **Philippines is used to powerful storms –** it is hit by an average of 20 storms and typhoons a year.

- **Goni – known as Rolly in the Philippines –** is the **most powerful storm** to hit the country **since Typhoon Haiyan** killed more than 6,000 people in 2013.

    - In fact, Typhoon Goni is the **world's strongest Typhoon in 2020.**

- Last week, the Philippines was hit by **Typhoon Molave.**

- Another storm, **Atsani,** is gaining strength in the Pacific Ocean as it approaches the Philippines.

- Typhoon is a **regionally specific name** for a strong **"tropical cyclone"**.

    - Tropical cyclones are known as **'typhoons'** in the **northwest pacific**

ocean, **hurricanes** in the **North Atlantic Ocean, Willy-willies** in **north-western Australia** and **Tropical Cyclones** in the **Indian Ocean Region.**

- A tropical cyclone is a **generic term** used by meteorologists to describe **a rotating, organized system of clouds and thunderstorms** that originates over tropical or subtropical waters and has closed, low-level circulation.

  - Tropical cyclones **rotate counterclockwise in the Northern Hemisphere.**

  - These are measured by the **Saffir-Simpson Hurricane Wind Scale.**

- **Naming of Typhoons:** The **Regional Specialized Meteorological Centre (RSMC) Tokyo – Typhoon Centre** assigns a tropical cyclone a name from the five lists. The name **'Goni'** is contributed by **South Korea.**

8.4 Cold wave conditions abate in Delhi as mercury rises slightly

As per the **India Meteorological Department (IMD),** there are **cold wave conditions** over **Delhi.**

- **Cold Wave:** A **rapid fall in temperature within 24 hours** to a level requiring substantially increased protection to agriculture, industry, commerce, and social activities.

- **Cold Wave Conditions:**

  - For the **plains,** a cold wave is declared when the **minimum temperature is 10 degrees Celsius or below** and is **4.5 degrees Celsius (C) less than normal for two consecutive days.**

  - For **coastal stations,** the threshold value of minimum temperature of 10 degree Celsius is rarely reached. However, the local people feel **discomfort due to the wind chill factor** which reduces the minimum temperature by a few degrees depending upon the wind speed.

    - A **wind chill factor** is a measure of the cooling effect of the wind on the temperature of the air.

- **India's Core Cold Wave Zone:** India's **'core cold wave zone'** covers Punjab, Himachal Pradesh, Uttarakhand, Delhi, Haryana, Rajasthan, Uttar Pradesh,

Gujarat, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal, Odisha and Telangana.

- In **2019, Delhi and adjoining areas** in the north had **experienced its coldest winter of the century.**

- **Cold Wave Situation in Delhi:**

  - On 3rd November 2020, **Delhi** recorded a **minimum temperature of 10 degree Celsius** which was **5 degrees C below normal.**

  - **IMD may consider** declaring a cold wave if the **temperature continues to stay the same for another day.**

- **Reasons for the Fall in Minimum Temperature:**

  - **Absence of cloud cover in the region:** Clouds trap some of the outgoing infrared radiation and radiate it back downward, warming the ground.

  - **Snowfall in the upper Himalayas** that has blown **cold winds** towards the region.

  - **Subsidence of cold air over the region:** Subsidence is the **downward movement of cold and dry air closer to the surface.**

  - Prevailing **weak La Nina conditions** in the Pacific Ocean.

    - La Nina is the **abnormal cooler sea surface temperatures** reported along the equatorial Pacific Ocean and it is known to favour cold waves.

    - **During La Nina years,** the **severity of cold conditions becomes intense.** The frequency and area covered under the grip of a cold wave becomes larger.

- **Winters 2020:** November is **expected to be colder than usual** after the **mean minimum temperature in October 2020 was 17.2 degrees Celsius,** the **lowest since 1962,** when it was 16.9 degrees Celsius.
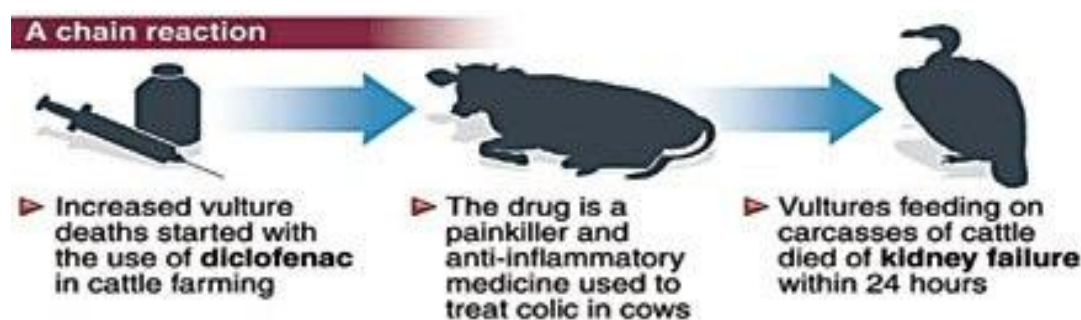
India Meteorological Department

- IMD was established in **1875.**

- It is **an agency of the Ministry of Earth Sciences** of the Government of

India.

- It is the **principal agency** responsible for meteorological observations, weather forecasting and seismology.

8.5 Wildlife Board clears plan forvulture conservation

The National Board for Wildlife (NBWL) has cleared a plan for conserving vultures. Saliently, the drugs that are used to treat cattle and known to poison vultures will be banned by the Drugs Controller General of India. **Diclofenac**, a drug used to treat cattle, was linked to kidney failure in vultures and a decline in the bird's population. Though the drug was banned in 2006, it is reportedly still available for use.

- A study by the **Bombay Natural History Society (BNHS) and the Royal Society for the Protection of Birds' Centre for Conservation Science** found that along with Diclofenac, there were several other drugs that were potentially toxic to vultures being used by vets for treating cattle. The drugs make their way into the vulture's system as they feed on carcasses.

- The **long-billed vulture (Gyps indicus)** and the **slender-billed (G. tenuirostris)** had declined by 97%, while the white-rumped (G. bengalensis) declined nearly 99% between 1992 and 2007, according to an earlier estimate by the BNHS.

- The '*Action Plan for Vulture Conservation 2020-2025*' also proposes to establish **Vulture Conservation Breeding Centres** in Uttar Pradesh, Tripura,

Maharashtra, Karnataka and Tamil Nadu. There would also be a conservation breeding programme for the red-headed vulture and Egyptian vulture, and at least one "**Vulture Safe Zone**" in every State for the conservation of the remnant populations.

- There would be four rescue centres in different geographical areas – **Pinjore in north India, Bhopal in central India, Guwahati in northeast India and Hyderabad in south India**, as well as regular surveys to track population numbers, the plan envisages.
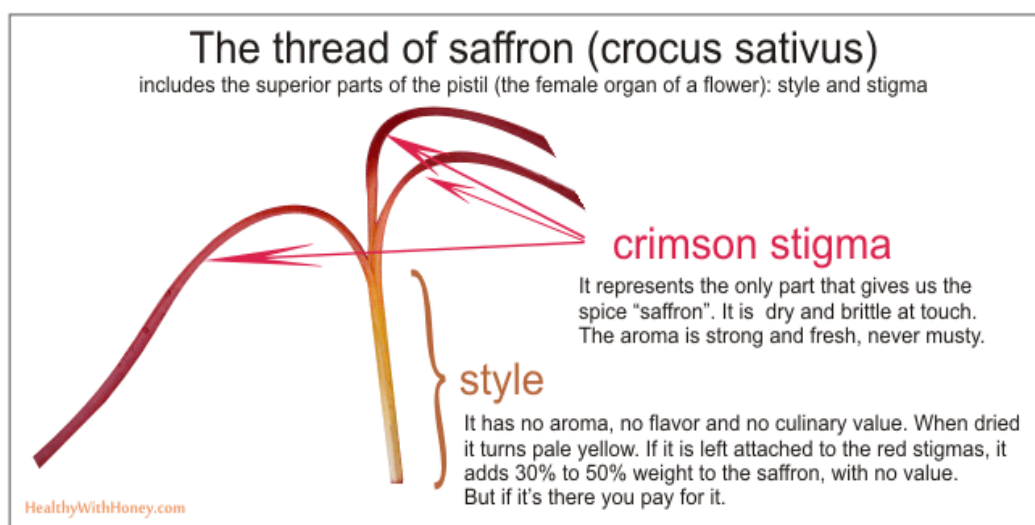
Diclofenac

- Diclofenac is a non-steroidal anti-inflammatory drug (NSAID) administered to reduce inflammation and to reduce pain in certain conditions.

- NSAIDs are associated with adverse kidney (renal) failure which is caused due to the reduction in synthesis of renal prostaglandins.

- Vultures which were unable to break down the chemical diclofenac, suffer from kidney failure when they eat the carcass of animals which have been administered with the drug 'Diclofenac'.

National Board for Wildlife

- The National Board for Wildlife (NBWL) is constituted by the Central Government under **Section 5 A of the Wildlife (Protection) Act, 1972 (WLPA)**.

- The National Board may, at its discretion, constitute a Standing Committee under sub-section (1) of Section 5B.

- The Standing Committee shall consist of the **Vice-Chairperson (Union Minister in charge of Forests and Wildlife),** the Member Secretary and not more than ten members to be nominated by the Vice-Chairperson from amongst the members of the National Board.

- The WLPA mandates that without the approval/recommendation of the NBWL, construction of tourist lodges, alteration of the boundaries of PAs, destruction or diversion of wildlife habitat and de-notification of Tiger Reserves, cannot be done.

- National Board for Wildlife is **chaired by the Prime Minister.** It has 47 members including the Prime Minister. Among these, 19 members are ex-

officio members. Other members include three Members of Parliament (two from Lok Sabha and one from Rajya Sabha), five NGOs and 10 eminent ecologists, conservationists and environmentalists.

8.6 Kashmir – Saffron bowl of India

The thread of saffron (crocus sativus)
includes the superior parts of the pistil (the female organ of a flower): style and stigma

crimson stigma
It represents the only part that gives us the spice "saffron". It is dry and brittle at touch. The aroma is strong and fresh, never musty.

style
It has no aroma, no flavor and no culinary value. When dried it turns pale yellow. If it is left attached to the red stigmas, it adds 30% to 50% weight to the saffron, with no value. But if it's there you pay for it.

HealthyWithHoney.com

The saffron bowl which was so far confined to Kashmir , may soon expand to the North East of India. Plants from seeds transported from Kashmir to Sikkim and acclimatised there are now flowering in Yangyang in the Southern part of the North-East state.

- Saffron production has long been **restricted to a limited geographical area in the Union territory of Jammu & Kashmir**.

- **Pampore region**, in India, commonly known as **Saffron bowl of Kashmir**, is the main contributor to saffron production, followed by **Budgam, Srinagar, and Kishtwar** districts.

- Saffron has traditionally been associated with the famous Kashmiri cuisine. Its medicinal values were considered as part of the rich cultural heritage of Kashmir.

- As saffron growing was confined to very specific areas in Kashmir, its production remained limited. Though the **National Mission on**

Saffron focused on several measures to improve its farming, the measures were still limited to the specified areas of Kashmir.

Saffron production in India

- In India, the annual demand for **Saffron spice is 100 tons per year** but its average production is about **6-7 tons per year.** Hence a large amount of Saffron is **imported.**

- At present, about 2825 hectares of land is under cultivation of Saffron in Jammu and Kashmir. Recently, the **Kashmir saffron got Geographical Indication (GI) tag status**.

- Pampore Saffron Heritage of Kashmir is one of the **Globally Important Agricultural Heritage systems (GIAHS)** recognised sites in India. GIAHS recognised sites are traditional agricultural systems that represent models of sustainable agricultural production. The other two sites in India are **Kuttanad Below Sea Level Farming of Kerala and Koraput Traditional Agriculture of Odisha.**

- Institute of Himalayan Bioresource Technology (IHBT) has also introduced its cultivation in non-traditional areas of **Himachal Pradesh and Uttarakhand**. The Institute has also developed tissue-culture protocol for the production of disease-free corms.

8.7 Panna Biosphere Reserve in World Network of Biosphere Reserves

Recently, the **United Nations Educational, Scientific and Cultural Organization** (UNESCO) has included the Panna Biosphere Reserve (PBR) in its **World Network of Biosphere Reserves** (WNBR).

- The PBR is the **third in Madhya Pradesh** to be included in the list after **Pachmarhi and Amarkantak.**

- Along with PBR, the **Fuvahmulahand Addu Atoll in the Maldives** has also been included in the WNBR.Panna

    - Established in **1981,** PBR is located in the **Panna and Chhatarpur districts of Madhya Pradesh** with an area of around 540 km. sq.

    - It is situated in the **Vindhya mountain range** in the northern part of

Madhya Pradesh.

- **Ken River** (one of the least polluted tributaries of the Yamuna River) flows through the reserve and the **Ken-Betwa river interlinking project** will also be located in it.

- The region is also famous for **Panna diamond mining.**

- **Conservation and Recognition:**

  - **1994:** The **Panna National Park** got the status of **Project Tiger Reserve** as **India's 22nd tiger reserve.**

  - **2011:** It was **notified as a Biosphere Reserve** by the Union Ministry of Environment, Forest and Climate Change (MoEFCC).

  - **2018:** By 2018, it witnessed a **remarkable turnaround in tiger population** by increasing their numbers remarkably from zero estimated a decade ago.

    - Madhya Pradesh has the **highest number of tigers** in the country followed by **Karnataka and Uttarakhand.**

  - **2020:** UNESCO included it in the **Man and Biosphere Programme** (MAB).

Biosphere Reserves

- **Biosphere Reserves** (BRs) are representative parts of natural and cultural landscapes extending over large areas of terrestrial or coastal/marine ecosystems or a combination thereof and representative examples of biogeographic zones/provinces.

- The idea of the biosphere reserve was initiated by **UNESCO in 1974 under the MAB** with the **objective** of obtaining international cooperation for the **conservation of the biospheres.**

- The **first biosphere reserve of the world** was established in **1979** and since then the network has increased to **more than 600 in 119 countries** across the world.

- A scheme called **Biosphere Reserve** has been **implemented by the Government of India since 1986.**

  - Under it, financial assistance is given in a **90:10 ratio to the North**

Eastern Region States and three Himalayan states and in the ratio of **60:40 to other states** for maintenance, improvement and development.

- The **State Governments** prepare the **Management Action Plan** which is approved and monitored by the Central MAB Committee.

- India has a **total of 18 Biosphere Reserves** and with the inclusion of PBR, the number of **internationally designated WNBR has become 12.**

  - In **2012,** the **Nilgiri Biosphere Reserve became the 1ˢᵗ BR from India** to be included in the WNBR.

  - In **2018,** the **Khangchendzonga Biosphere Reserve became the 11ᵗʰ BR** to be included in the list.

8.8 Petition for Declaring ESA Unconstitutional

Recently, a Kerala-based NGO for farmers has moved the Supreme Court(SC) to declare the draft notification on the Western Ghats Ecologically Sensitive Area (ESA) unconstitutional.

- It has sought a direction to the government to **not implement the Madhav Gadgil and Kasturirangan committees' reports** on the conservation of the Western Ghats.

  - The **Western Ghats Ecology Expert Panel** (WGEEP), also known as **Gadgil Committee,** and the **Kasturirangan Committee, a High-Level Working Group,** were constituted to **conserve and protect the biodiversity of Western Ghats** while allowing for sustainable and inclusive development of the region.

  - They recommended that **identified geographical areas falling in the six States of Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu** should be declared as ESA.

  - A **draft notification related to the same was issued in 2018** mentioning the areas to be notified in the ESA.

- **Issues Highlighted by the Petition:**

  - The draft notification would declare 123 agricultural villages in

Kerala as ESA **converting the semi-urban villages in the region into forests with no facilities and roads.** It will **affect 22 lakh people** and **cripple the economy** of Kerala.

- The Centre had **wrongly branded people** who had been residing in the Western Ghats area, **as the "destroyers of the biodiversity and agents of ecological damage."**

- Apart from that, it suggested that **ESA in Kerala should be restricted to reserved forests and protected areas.**

- **Gadgil Committee:**

    - It recommended that **all of the Western Ghats should be declared as the ESA** with only limited development allowed in graded zones.

    - It classified the Western Ghats into **ESA 1, 2 and 3** of which **ESA-1 is a high priority zone** where almost all of the **developmental activities** (mining, thermal power plants, etc) should be **restricted.**

    - It also recommended the **constitution of Western Ghats Ecology Authority** (WGEA), as a statutory authority under the Ministry of Environment, Forests and Climate Change (MoEFCC) with the powers under **Section 3 of the Environment (Protection) Act, 1986.**

    - It was **criticised for being more environment-friendly** and **not in tune with the ground realities.**

- **Kasturirangan Committee:**

    - It sought to **balance the development and environment protection** in contrast to the system proposed by the Gadgil report.

    - The committee's **major recommendations were:**

        - Instead of the total area of Western Ghats, **only 37% of the total area to be brought under ESA.**

        - A complete **ban on mining, quarrying and sand mining** in ESA.

        - **No thermal power projects** to be allowed and **hydropower projects to be allowed only after**

detailed study.

- **Red industries** (highly polluting industries) to be strictly **banned.**

- Exclusion of inhabited regions and plantations from the purview of ESAs making it a **pro-farmer approach.**

Ecologically Sensitive Areas

- **Eco-Sensitive Zones or Ecologically Fragile Areas** are located **within 10 km of Protected Areas, National Parks and Wildlife Sanctuaries.**

- ESAs are **notified by the MoEFCC under Environment (Protection) Act 1986.**

- **Aim:** To regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts on the fragile ecosystem encompassing the protected areas.

Road ahead

- The matter pertains to the debate of 'Development versus Conservation', which highlights that destruction in the name of development should not be encouraged and sustainable development should be given priority.

- A proper analysis based on scientific study followed by consensus among various stakeholders by addressing respective concerns is required to solve the differences in a timely manner.

- Delays in implementation will only accentuate degrading of the prized natural resources of the country hence, with a holistic view of threats and demands on the forest land, products and services, devising strategies must be developed to address them.

8.9 Striped Bubble-nest frog – New Species in Andaman

Recently a group of scientists has reported a new genus of treefrog from the **Andaman Islands** called **Striped Bubble-nest frog.**

- **Biological name:** *Rohanixalus vittatus*

  - The new genus **'Rohanixalus'** is **named** after **Sri Lankan**

taxonomist Rohan Pethiyagoda.

- Striped Bubble-nest frog belongs to the genus of the Old World treefrog family **Rhacophoridae.**

- This is the first report of a tree frog species from the Andaman Islands.

- **Bodily Features**

    - Small and slender body **(2-3 cm long).**

    - A **pair** of **contrastingly coloured lateral lines** on either side of the body. Minute brown speckles scattered throughout the upper body.

    - Light green-coloured eggs laid in **arboreal** bubble-nests.

        - Arboreal means living in trees or related trees

    - They are also known as Asian Glass Frog or see through frogs.

    - While the general background coloration of most glass frogs is primarily **lime green,** the abdominal skin of some members of this family is **translucent** (allowing light to pass through). The internal viscera, including the heart, liver, and gastrointestinal tract, **are visible through this translucent skin, hence the common name.**

    - The genus has several unique behavioural traits:

        - **Maternal egg attendance:**

            - The female (mother) attends the egg clutches until hatching and assists in release of the tadpoles into the water.

            - During the **first three days** after egg laying, the **female sits over the eggs** and produces a **gelatinous secretion** with which she glazes (covers) the egg mass through **clockwise movement of her legs.** This behaviour provides **necessary moisture to the eggs laid on exposed leaf surfaces** and protects them from **insect predation.**

        - **Community egg attendance:**

- A large number of egg clutches **(over 50)** of different developmental stages on a single leaf or plant. **Multiple females** usually attend such clutches in a behaviour termed as **'community' egg attendance.**

- Frequent **male-male combats** involving pushing, kicking and dislodging to **mate with a female.**

8.10 Venomous Vine Snakes

A team of researchers from the Centre for Ecological Sciences (CES), Indian Institute of Science (IISc), after extensive sampling across peninsular India, have discovered new species of vine snakes in the region.

- Vine Snakes have slender bodies, narrow heads, and pointed snouts. Vine snakes typically belong to the genera *Ahaetulla* (Asian vine snakes), *Oxybelis* (New World vine snakes), and *Thelotornis* (African vine snakes); however, some authorities also place the genera *Imantodes* and *Langaha* in this group. African vine snakes, which inhabit sub-Saharan regions, are most diverse in East Africa. The five species of New World vine snakes range from Texas in the United States to Peru. *Ahaetulla* is a tropical Asian genus made up of eight species and distributed through India, Southeast Asia, the Philippines, and the East Indies.

- Vine snakes are known to be among the most common snakes in peninsular India, found even in many peri-urban areas and in the Western Ghats.

- All **vine snakes** are **venomous** with grooved fangs below the eye; however, most species are relatively harmless to humans, and only Thelotornis has caused human fatalities.

- According to an IISc release, Asian vine snakes, distributed throughout the continent, belong to the genus Ahaetulla and the recently described Proahaetulla.

- The team discovered that the common green vine snake (Ahaetulla nasuta) in India was a complex of several species. They found four distinct small-bodied and shortnosed species: the Northern Western Ghats vine snake (Ahaetulla borealis), Farnsworth's vine snake (Ahaetulla farnsworthi), Malabar vine

snake (Ahaetulla malabarica) and Wall's vine snake (Ahaetulla isabellina) in the Western Ghats rainforests alone," said the release.

- These species were superficially similar in their morphology, but separated by geographic or ecological barriers.

- The team also delineated the Travancore vine snake (Ahaetulla travancorica), separated by morphology and a geographic barrier from the Gunther's vine snake (Ahaetulla dispar).

- Finally, they recognised morphological distinctions between the brown vine snake in the Western Ghats and the one found in Sri Lanka, and gave the Western Ghats form a new name (Ahaetulla sahyadrensis). **There are now six species of vine snakes endemic to the Western Ghats**.

8.11 Forest Rights Act – Hunsur taluk of Mysuru

Over 1,200 tribals in Hunsur taluk of Mysuru district stare at an uncertain future as their review petition for recognition of their claims over forest land under the Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006, has been rejected by the local authorities.

The Supreme Court in 2019 ordered the eviction of nearly a million people across India, whose claims under the forest rights acts had been rejected. Now, nearly 1,200 applications from Hunsur had been rejected and the applicants received a communique stating that they had failed to furnish evidence to substantiate the claims of their stay inside the forest.

Forest Rights Act (FRA)

- Aimed at protecting the rights of forest dwelling tribal communities the **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** promised much. However, over the years its implementation has been tardy and there have been concerted efforts to dilute it.

- The legislation, which was passed in December 2006, concerns the **rights of forest-dwelling communities** to land and other resources, denied to them over decades as a result of the continuance of colonial forest laws in India.

- The Act **grants legal recognition to the rights of traditional forest dwelling communities**, partially correcting the injustice caused by the forest laws.

Rights under the Act

- **Title rights** – Ownership to land that is being farmed by tribals or forest dwellers subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family (as on December 13, 2005 and not thereafter), meaning that no new lands are granted.

- **Use rights** – To minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.

- **Relief and development rights** – To rehabilitation in case of illegal eviction or forced displacement; and to basic amenities, subject to restrictions for forest protection.

- **Forest management rights** – to protect forests and wildlife.

Eligibility

Eligibility to get rights under the Act is confined to those who "**primarily reside in forests**" and who depend on forests and forest land for a livelihood. Further, either the claimant **must be a member of the Scheduled Tribes scheduled in that area or must have been residing in the forest for 75 years**.

Process of recognition of rights

The Act provides that the gram sabha, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised. This resolution is then screened and approved at the level of the sub-division (or taluka) and subsequently at the district level. The screening committees consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals.

Why this law was necessary?

Under the Indian Forest Act, areas were often declared to be "government forests" without recording who lived in these areas, what land they were using, what uses they made of the forest and so on. 82% of Madhya forest blocks and 40% of Orissa's reserved forests were never surveyed; similarly 60% of India's national parks have till

today not completed their process of enquiry and settlement of rights. As the Tiger Task Force of the Government of India put it, "in the name of conservation, what has been carried out is a completely illegal and unconstitutional land acquisition programme." Hence, this was law necessary.

8.12 Deemed Forests – Classification

- Karnataka Forest Minister Anand Singh announced in the Assembly that the state government would soon declassify 6.64 lakh hectares of the 9.94 lakh hectares of deemed forests in the state (nearly 67%) and hand it over to Revenue authorities.

- The move has been taken after a study of the actual extent of deemed forest areas by local committees headed by officials from the Revenue, Forest and Land Records Departments in every district.

The issue of deemed forests is a contentious one in Karnataka, with legislators across party lines often alleging that large amounts of agriculture and non-forest land are "unscientifically" classified as such.

- While the concept of deemed forests has not been clearly defined in any law including the Forest Conservation Act of 1980, the Supreme Court in the case of T N Godavarman Thirumalpad (1996) accepted a wide definition of forests under the Act.

- "The word 'forest' must be understood according to its dictionary meaning. This description covers all statutorily recognised forests, whether designated as reserved, protected or otherwise for the purpose of Section 2 (1) of the Forest Conservation Act," the Supreme Court said in its December 12, 1996 order.

- "The term 'forest land' occurring in Section 2 will not only include 'forest' as understood in the dictionary sense, but also any areas recorded as forest in the government record irrespective of the ownership. The provisions enacted in the Forest Conservation Act 1980 for the conservation of forest and the matters connected therewith must apply clearly to all forest so understood irrespective of the ownership or

classification thereof," the court said.

- An expert committee constituted by the Karnataka government after the Supreme Court order identified 'deemed forests' as "land having the characteristic of forests irrespective of the ownership'".

- Thickly wooded areas of the Revenue Department not handed over to the Forest Department; thickly wooded areas recommended to be handed over to the Forest Department; thickly wooded land distributed to grantees but not cultivated; and thickly wooded plantations of the Forest Department could all be 'deemed forests', the committee said in a report in 2002.

8.13 Roridomyces phyllostachydis – Bioluminescent fungi

- A mushroom documentation project in the forests of Northeast India has led to a new discovery: a bioluminescent — or light emitting — variety of mushroom.

- The new species — named Roridomyces phyllostachydis — was first sighted on a wet August night near a stream in Meghalaya's Mawlynnong in East Khasi Hills district and later at Krang Shuri in West Jaintia Hills district.

- Bioluminescence is the property of a living organism to produce and emit light.

- Animals, plants, fungi and bacteria show bioluminescence. Bioluminescent organisms are usually found in the ocean environments, but they are also found on terrestrial environments.

- The colour of the light emitted by the organism depends on their chemical properties. In the case of fungi, the luminescence comes from the enzyme, luciferase.

- It is now one among the 97 known species of bioluminescent fungi in the world.

- The new species was important because it was the first mushroom in the

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Roridomyces genus to be found in India.

- It was the only member in its genus to have light emitting from its stipe or stalk.

8.14 'Nivar' will cross the Tamil Nadu and Puducherry

- A very severe cyclonic storm is likely to make landfall on the coast of Tamil Nadu and Puducherry, according to weather experts.

- The Meteorological Department said the cyclone christened 'Nivar' will cross the Tamil Nadu and Puducherry coasts between Karaikal and Mamallapuram as a very severe cyclonic storm with a wind speed of 120-130 kilometres per hour gusting to 145 kmph.

- Nivar is the second cyclone in the Bay of Bengal this year.

- In May, Cyclone Amphan had developed into a 'super cyclonic storm'.

- With the arrival of the cyclone Nivar, the weather departments have predicted heavy rainfall in most places of Tamil Nadu, Puducherry, and Karaikal.

- There's prediction of extremely heavy rainfall for isolated places in southern coasts.

- The Tamil Nadu region witnessed intermittent rainfall influenced by the cyclonic storm, which caused traffic congestion and water logging in several areas.

8.15 Northeast monsoon

- The Northeast monsoon has remained subdued this year.

- Rainfall over the Southern peninsular region has been deficient so far.

- The reason is a prevalent La Niña condition, along with a low pressure belt that is currently lying to the north of its normal position.

- India receives rainfall during two seasons.

- About 75 per cent of the country's annual rainfall is received from the

Southwest monsoon between June and September.

- The Northeast monsoon, on the other hand, occurs during October to December, and is a comparatively small-scale monsoon, which is confined to the Southern peninsula.

- Also called the winter monsoon, the rainfall associated with the Northeast monsoon is important for Tamil Nadu, Puducherry, Karaikal, Yanam, coastal Andhra Pradesh, Kerala, north interior Karnataka, Mahe and Lakshadweep.

- While La Niña conditions enhance the rainfall associated with the Southwest monsoon, it has a negative impact on rainfall associated with the Northeast monsoon.

- During La Niña years, the synoptic systems — low pressure or cyclones — formed in the Bay of Bengal remain significantly to the north of their normal position.

- Besides, instead of moving westwards, these systems recurve.

- As they lie to the north of their normal position, not much rainfall occurs over southern regions like Tamil Nadu.

S.W. Monsoons	N.E. Monsoon
They blow from south-west to north-east from June to September.	They blow from north-east to south-west from the month of Dec., Jan. and Feb.
These are onshore humid winds because they blow from sea to land.	These are offshore dry winds because they blow from land to sea.
These are warm winds as they come from lower latitudes near equator.	They are rather cool winds.
These warm and humid winds cause widespread rainfall.	These cold and dry offshore winds give no rains to India except Coromandel coast.

| These winds are known for their vagaries or uncertainties. | They do not suffer from the vagaries. |