



# VAJIRAM & RAVI

( Institute for Civil Services Examination )

## NOVEMBER 2020

# *the* RECITALS

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Q & A

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One Nation One Election

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## *From the Desk of the Director*

### **Dear Students**

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

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

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

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

Thanks

Best Wishes

## *One Nation, One Election*

Addressing the concluding session of the 80th All India Presiding Officers Conference via video conference, Prime Minister pitched for 'One Nation, One Election', saying it is the need of India as polls taking place every few months impact development works.

The prime minister also suggested a single voters' list for Lok Sabha, assembly and panchayat polls, saying separate lists are a waste of resources.

### **What Is One Nation, One Election?**

- Currently, elections to the state assemblies and the Lok Sabha are held separately — that is whenever the incumbent government's five-year term ends or whenever it is dissolved due to various reasons. This applies to both the state legislatures and the Lok Sabha. The terms of Legislative Assemblies and the Lok Sabha may not synchronise with one another.
- The idea of “One Nation, One Election” envisages a **system where elections to all states and the Lok Sabha will have to be held simultaneously**. This will involve the restructuring of the Indian election cycle in a manner that elections to the states and the centre synchronise.
- This would mean that the **voters will cast their vote for electing members of the LS and the state assemblies on a single day, at the same time** (or in a phased manner as the case may be).

### **Historical Perspective: We Started With Simultaneous Elections**

- The concept of simultaneous elections is in-fact not new to the country. **Post adoption of the Constitution, the elections to Lok Sabha and all State Legislative Assemblies were held simultaneously between 1951 till 1967** when the cycle of synchronized elections got disrupted.
- The idea of reverting to simultaneous polls was mooted in the **annual report of the Election Commission in 1983**. The Law Commission's Report also referred to it in 1999.
- Prime Minister Narendra Modi floated the idea once again in 2016 and the Niti Aayog prepared a working paper on the subject in January 2017.
- In the working paper that the Law Commission brought out in April 2018, it said that at least “five Constitutional recommendations” would be required to get this off the ground. The final decision on holding simultaneous elections is yet to be taken.

### **Precedent Of Simultaneous Elections To Federal And Provincial Legislatures In Other Countries**

- **In South Africa**, elections to national as well as provincial legislatures are held simultaneously for five years and municipal election are held two years later.
- **In Sweden**, election to National Legislature (Riksdag) and provincial legislature/county council (Landsting) and local bodies/municipal Assemblies (Kommunfullmaktige) are held on a fixed date.
- In the U.K., the term of the Parliament is governed by the Fixed-term Parliaments Act, 2011.

### **Justification For Holding Simultaneous Elections**

- **Curtailment in expenditure:** It was felt that holding simultaneous elections would reduce the massive expenditure incurred for conduct of separate elections every year. Presently, the cost of holding elections for Lok Sabha and Legislative Assemblies of States and UTs has been pegged at Rs. 4500 crore by the Election Commission of India.

- **Impact on development programs:** Elections lead to **imposition of Model Code of Conduct (MCC)** in the poll bound State/area and as a result, the entire development programme and activities of the Union and State Governments in the poll bound State would come to a standstill. Frequent elections lead to imposition of MCC over prolonged periods of time which affects the normal governance.
- **Disruption of normal public life:** Frequent elections lead to disruption of normal public life and impact the functioning of essential services. If simultaneous elections are held, this period of disruption would be limited to a certain pre-determined period of time.
- **Engagement of security forces:** Security forces also have to be diverted for the electoral work even as the country's enemy keeps plotting against the nation and terrorism remains a strong threat. Simultaneously would free the crucial manpower which is often deployed for prolonged periods on election duties.
- **Improved Governance:** Simultaneous Elections will help ruling parties focus on governance instead of being constantly in election mode.
- **Voter Turnout:** Simultaneous polls will boost voter turnout, according to the Law Commission.
- **Frequent elections perpetuate caste, religion and communal issues across the country:** In a recent article Dr. S. Y. Quarishi (former Chief Election Commissioner) noted that “elections are polarizing events which have accentuated casteism, communalism, corruption and crony capitalism. If the country is perpetually on election mode, there is no respite from these evils. Holding simultaneous elections would certainly help in this context.

### Arguments Against The Idea Of Simultaneous Election

- Since elections will be held once in five years, it will **reduce the government's accountability to the people**. Repeated elections keep legislators on their toes and increases accountability. Frequent elections will keep the bond between the people and their representatives strong.
- **Regional issues might get merged with the national issues** if simultaneous elections are conducted. Simultaneous elections might affect the regional parties in negative ways as regional parties will find it hard to compete with a party fighting national elections with a national agenda.
- **It also has the potential to affect the national parties** as a national party will have to be spread too thin if it is focusing on both national and state elections at the same time.
- The ECI felt that simultaneous conduct of elections would **require large scale purchase of Electronic Voting Machines and Voter Verifiable Paper Audit Trail (VVPAT) machines**. For conducting simultaneous elections, the Commission expects that a total of Rupees 9284.15 crore will be needed for procurement of EVMs and VVPATs.
- When an election in a State is postponed until the synchronised phase, **President's rule will have to be imposed in the interim period** in that state. This will be a blow to democracy and federalism.

### Alternative Solutions

To get away with the practical infeasibility of conducting simultaneous polls, we can look at few things that can sort out the issues with current system.

**Suggestions of Election Commission of India**

- The period for general election to constitute the new House to be so determined that the Lok Sabha could commence its term on the pre-determined date.
- In order to avoid premature dissolution, it may be provided that **any 'noconfidence motion' moved against the government in office should also necessarily include a further 'confidence motion' in favour of a government** to be headed by a named individual as the future Prime Minister and voting should take place for the two motions together.
- In spite of the above arrangement, if there is a situation where **dissolution of Lok Sabha cannot be avoided**, then the following options can be considered:
  - If the remainder of the term of the Lok Sabha is not long (period to be specified), there could be a provision for the President to carry out the administration of the country, on the aid and advice of his Council of Ministers to be appointed by him till, the time the next House is constituted at the prescribed time.
  - If the remainder of the term is long (period to be specified), then fresh election may be held and the term of the House in such case should be for the rest of what would have been the original term.
- If, following a general election, **none of the parties is able to form a government and another general election becomes necessary**, the term of the House in such case after the fresh election should be only for the remainder of what would have been the original term.
- Similarly, if the government has to resign for some reason and an alternative is not possible, then provision can be considered for a fresh election if the remainder of the term is comparatively longer period and in other cases, rule by the Governor or President's Rule could be considered.

**Recommendations/Observations of Parliamentary Standing Committee**

- The Committee did not feel that simultaneous election in every five year could not be held in near future but slowly it would reach in stages for which tenure of some of the State Legislative Assemblies need to be curtailed or extended.
- Extension of term of Legislature is not permissible except under proclamation of emergency. **But election to Lok Sabha/State Legislative Assemblies can be held six months before under Sections 14 & 15 of the Representation of People Act, 1951.**
- The Committee further recommended that bye-elections to all seats falling vacant in a particular year be conducted together on a pre-determined date/ time frame.
- The Committee felt that gaining consensus of all political parties may be difficult in certain States of the Country. However, in the larger context of economic development and implementation of election promises without creation of the impediments due to enforcement of Model Code of Conduct, the prospects of holding simultaneous elections need to be weighed and deeply considered by all political parties.
- Holding simultaneous elections may not be feasible even in a decade but it expressed confidence that a solution will be found to reduce the frequency of elections which relieve people and government machinery being tired of frequent electoral processes.

## Conclusion

Eventual implementation of simultaneous election would not only require significant Constitutional and Statutory amendments, it would also require significant consensus amongst the key stakeholders. Without a general consensus and wider acceptance, its intent and efficacy could be compromised. The Constitution does provide sufficient room to make amendments to suit the changing times and needs of the country. As a way forward, it is therefore suggested that a focused group of stakeholders comprising constitution and subject matter experts, think tanks, government officials and representatives of various political parties come together and work out appropriate implementation related details.

As is the case with long-term structural reforms, implementing this measure would also cause some short-term pain. However, this would be a **stepping stone towards improved governance and a larger initiation of “electoral reforms” – a desperately needed measure to re-boot the Indian polity.**

## Indian Electronics Industry

The world’s fastest growing industry, Electronics System Design and Manufacturing (ESDM) continues to transform lives, businesses, and economies across the globe. The electronics industry has seen sweeping changes over the last two decades. These have majorly been in the product aspect across technology, formats, and design, the evolution of the trade environment from traditional to large-format specialized stores and e-commerce, and an evolving regulatory landscape. The requirements of both the consumers and businesses have evolved over time, leading to a demand for more innovative products and the industry’s ecosystem has undergone drastic changes to keep pace with the changing demand patterns.



## Global Electronics Industry

- Worldwide, the production of electronics has shifted from the high-cost destinations to low-cost geographies, making a major contribution to the economic development of countries like China, Korea and Taiwan.
- In 2018, China accounted for almost 37% of the global electronics production, followed by the US (13%), Taiwan (6.9%), South Korea (6.8%), Japan (5.4%) and India (3.1%).
- The global electronics market is estimated to be over \$2 tn. By 2025, it is expected that the global electronics industry will grow to reach a size over USD 7.3 trillion by 2025. China will contribute almost 50% of global electronics, in value terms, by 2025.
- Besides other Asian countries such as Taiwan, Vietnam, Indonesia and India continue to expand their electronics value chain and establish themselves as attractive electronics production hubs globally.
- Globally, the communication electronics segment is by far the largest segment with 32.4% market share (by value) due to the boom of the digital era and the exponential rise in the usage of

smartphones. This has further augmented the growth of other segments, such as wearable electronics.

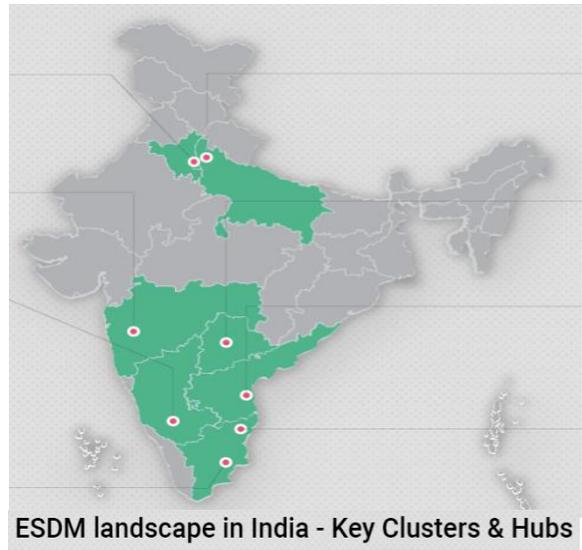
- As such, usage of computers and consumer electronics consumption has increased globally. Computers continue to be a large segment of growth as they are a necessity in not only small and medium enterprises, but also in universities, colleges, and schools.
- Niche segments, such as automotive electronics, have seen significant growth, which is primarily due to the increased electronic automation in the industry. Medical electronics have seen a steady growth due to rise in access to affordable healthcare and increased demand for medical tourism.
- Moreover, with the increasing trend of inter-connected products and solutions, the global IoT industry is set to expand exponentially.

### Indian Electronics Industry

- India has emerged as one of the largest markets for electronic products in the world. Moreover, India's share in global electronics manufacturing has grown from 1.3% in 2012 to 3% in 2018.
- The Indian electronics market valued at \$120 bn in 2018-19 is segmented as Mobile Phones (24%), Consumer Electronics (22%), Strategic Electronics (12%), Computer Hardware (7%), LEDs (2%) and Industrial Electronics (34%) comprising of Auto, Medical and other industrial electronic products.
- Technology transitions such as the rollout of 5G networks and IoT are driving the accelerated adoption of electronics products. Further, Initiatives such as Digital India and Smart City projects have raised the demand for IoT in the market and will usher in a new era for electronic products.
- India is expected to have a digital economy of \$1 tn by 2025 and India's ESDM sector is expected to generate \$100 - 130 bn in economic value by 2025.

### Trade In Electronics

- In FY 19, for the first time in India, electronics imports have declined as compared to the previous year, whereas both electronics production and electronics export have increased as compared to the previous year.
- India's import dependency on China significantly reduced as imports in FY 19 were 39% of the total electronics imports as compared to 59% in FY 18.
- The major items of import included semiconductors, ICs, defense electronics, and mobile phones in both FY 18 and FY 19.
- India's major exports are to the US, which constituted 14% of total electronics export from the country in FY 19.



### FDI In Electronics Sector

- India has recognized development in the electronics manufacturing sector as a thrust area and has therefore taken several measures to support the industry.<sup>[1]</sup>

- The government allows 100% FDI under the automatic route and in case of electronics items for defence, FDI up to 49% is allowed under automatic route and beyond 49% through the government approval.
- There has been a noteworthy rise in consumer spending on mobile phones, (especially for Chinese smartphones due to their low prices) which has attracted increased investments from Chinese mobile manufacturers in India.

### **Recent Measures In The Electronics Sector**

For transformation of Indian economy into digital economy, the government has launched three schemes in the recent past.

#### **Production Linked Incentive Scheme (PLI)**

- The Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain including mobile phones, and electronic components.
- Production Linked Incentives of around INR 40,000 crores will be awarded over a period of 5 years.

#### **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)**

- SPECS aims to strengthen the manufacturing ecosystem for electronic components and semiconductors.
- Target manufacturing of electronic components and semiconductors through the scheme will help meet domestic demand, increase value addition and promote employment opportunities in this sector.
- Incentives of up to INR 3,200 crore will be awarded under the Scheme over a period of 8 years.

#### **Modified Electronics Manufacturing Clusters Scheme (EMC 2.0)**

- The EMC 2.0 scheme seeks to strengthen the infrastructure base for the electronics industry and deepen the electronics value chain in India.
- The development of industry-specific facilities like Common Facility Centers, Ready Built Factory, Sheds/Plug and Play facilities will not only strengthen supply chain responsiveness and promote the consolidation of suppliers but also decrease time-to-market and lower logistics costs.
- EMC 2.0, therefore, provides financial incentives for creating quality infrastructure as well as common facilities and amenities for electronics manufacturers. Financial Incentives of up to INR 3,700 crore will be disbursed over a period of 8 years.

### **Growth Drivers in India**

#### **Global Shift In Industries**

- The rising manufacturing costs in other economies and growing labour costs in China, coupled with the trade war between the USA and China, global organizations are expected to shift their units from China to India to serve domestic and global demand.
- Thus, it is expected that the Indian electronics industry is likely to increase its share in the global production market as well as increase its share in the export of electronics products.

### **Economic Growth**

India is one of the fastest growing economies in the world, with the GDP expected to grow consistently. The growing economic activity and deployment of latest automation technologies across different sectors have positively influenced the demand for several industrial and strategic electronics.

### **Rapid Urbanization and Income Growth**

- India's economic growth is synonymous with rise in urbanization level driven by the increase in service sector that generated employment in urban centers. It has also supported income growth.
- Rapid urbanization coupled with income growth has led to greater affordability of goods and consequently an increase in demand for mobile phones, tablets, and other household appliances.

### **Government Initiatives**

- GST, Make in India and other policies, such as Preferential Market Access, have made the business environment far more conducive for local manufacturing.
- The government's flagship programs, such as Smart Cities and Digital India, are also boosting demand for electronic products.

### **Shift in Technology and Innovation**

- Rapid technology advancements and newer products with upgraded technology have led to shorter lifecycles of electronic products.
- Also, changing customer attitude and consumer-to-consumer websites, such as Olx and Quikr, have made it easier for customers to replace their existing electronics with newer products.

### **Challenges**

#### **Complex Value Chain**

- The electronics industry is constantly undergoing changes due to disruptive innovation, thereby increasing pressure on the value chain to continuously upgrade.
- The sourcing and contractual interdependencies between OEMs and suppliers is now more complex due to high technological nature of components, number of components required for a single finished product, level of aggregation or assembly required, and the need to adapt to changes in product design.
- The Indian ecosystem for electronic components is still evolving and has a long way to go.

#### **Capital Intensive Industry and Lower Availability of Raw Materials**

- The electronics industry is primarily dependent on the number and competency of domestic chip fabrication centers (Fab centers) present in the market.
- Fab centers require a dedicated ecosystem, which includes investment, know-how of chip fabrication, raw material supply, continuity of demand, and unit upgradation competency.
- Given the current scenario, India lacks most of the necessary requirements for development of domestic chip fabrication units. Thus, the design and development of electronic product is often outsourced to ODMs (Original Design Manufacturers) in China or Taiwan or other countries with stronger designing and manufacturing base.

### **Sustainability**

- Emerging regulations and standards for cleaner and greener technology are forcing companies to comply and take accountability for the manufacturing process as well as the final product.
- The entire recycling and disposal process of electronics need to be considered as a vital part of the product lifecycle.

### **E-waste Management**

- India ranks fifth, globally, among top e-waste producing nations. The exponential increase in quantum of e-waste is driven by increase in usage as well as growing upgrades.
- Consumers are discarding old PCs, mobiles, tablets, and other electronics a lot sooner than before. However, with the growing awareness campaigns by the government, e-waste management is gradually taking precedence in the industry.

### **Future Outlook**

- The long-term growth potential for the Indian electronics industry remains secure, primarily because the market penetration is still low, currently standing at single digits for some categories.
- Besides, the positive outlook of a higher GDP growth rate, improving physical and social infrastructure (availability of electricity and water), better logistics facilitated by improved road connectivity), and expansion of retail will provide additional impetus.
- With increasing domestic demand, rising disposable incomes, progressive policy initiatives, a booming rural market, rising adoption of online purchases, and increasing consumption of mobile data, the electronics industry is likely to gain traction from both private as well as foreign investments.

## *2020 United States Presidential Election*

The 2020 United States presidential election was held nominally on November 3, 2020. It was the **59th quadrennial presidential election**. The former vice president Joe Biden and his running mate Kamala Harris **defeated the incumbent president Donald Trump** and vice president Mike Pence.

### **Controversies Surrounding 2020 US Presidential Election**

- A. Despite the winning of Democratic candidate Joe Biden, who managed to secure 306 seats, this election saw **disputes about mail ballots**, particularly those received after Election Day.
- B. Donald Trump is continuing his attempts to overturn the result of the US presidential election through legal means. He has not yet conceded the defeat.

#### **A. Mail-in Ballots**

- Mail-in ballots allow voters to send in their votes early by mail in the event they cannot make it to the polling station on Election Day.
- Typically, the category of mail-in ballots comprises citizens staying overseas and military personnel.
- The US is a federal structure. Hence, **states have their own laws** for mail-in ballots too. Some would count ballots received before election day, whereas others would count ballots as long as they were posted by election day.

- For example, Pennsylvania accepted ballots till November 6 while election day was November 3.
- As a result, the Trump camp has now gone back to the court in a last-ditch attempt to push the deadline back to Election Day.

### **B. Trump Not Conceding Defeat**

- After every election, it is customary for the incumbent president or the losing contender to officially accept defeat and yield to the new president-elect and assist in a smooth transition of power.
- Donald Trump, however, has claimed that the elections were rigged against him. He remained more or less unfazed by the results and continues to carry on. He even signed an executive order on November 12th **banning American companies from investing in Chinese entities with ties to the military.**
- This **highlights the problems** as Trump being an incumbent President might be working against the new administration who may take a different approach towards China.

### **What Happens If Trump Does Not Accede?**

- Even if Trump remains in the White House post-January 20, 2021 then simply will be an ex-president not permitted to exercise any powers which will be with Biden.
- In addition, Trump will be admitted into the White House only if he is invited. But, if the President still refuses to leave the office, the Secret Service and the FBI will be on the ground. The **FBI and Secret Service control the White House.**

### **Who Could Be Involved If The US Election Results Are Challenged?**

- Local Election Officials – Will count ballots and deliver results
- Party legal teams – Could challenge the result in state courts
- State Judges – Could uphold challenge and order a recount
- Supreme Court Justices – Could be asked to overturn a ruling by state court

### **The Election Process of US President**

- Contrary to popular belief, the US president and vice-president are **not directly elected.** The task of actually electing the president falls to 538 individual electors to the US Elector College.
- **Date of the US presidential elections** - An election for president of the United States happens **every four years on the first Tuesday after the first Monday in November.**
- **Who Can Become the President** - The U.S. Constitution's Requirements for a Presidential Candidate are:
  - A natural-born citizen of the United States.
  - A resident of the United States for 14 years.
  - At least 35 years old.

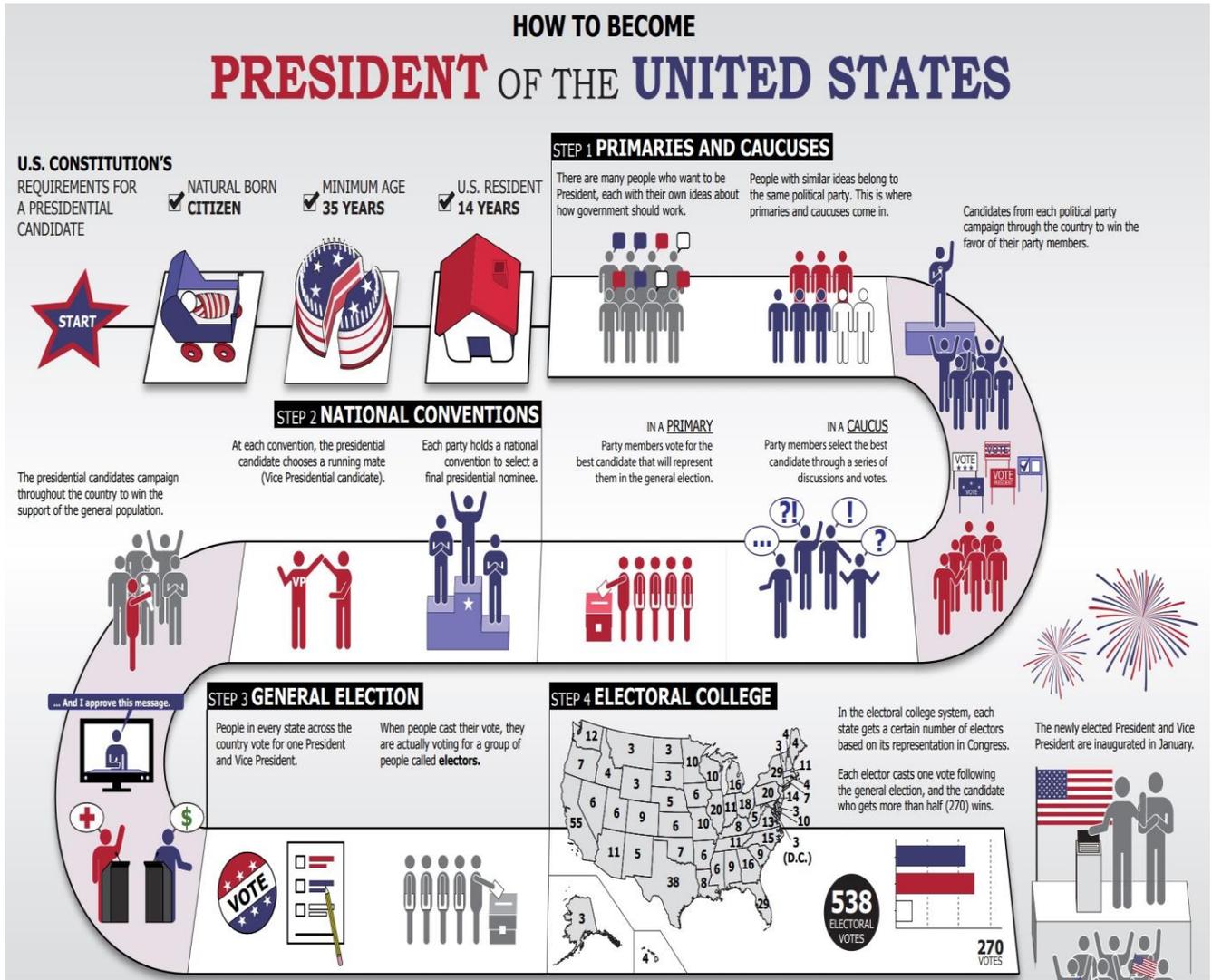
### **Steps of US Presidential Election**

#### **Step 1: Primaries and Caucuses**

- Through Primaries and caucuses political parties select candidates for a general election.
- In Primary, party members vote for the best candidate that will represent them in the general election. **34 U.S. states conduct primary elections.**
- A caucus is a substitute for a primary election to select delegates to the national party convention. **16 states hold caucuses** to determine political party candidates.

**Step 2: National Conventions of Each Party**

- After the primaries and caucuses are over, a national convention is held in which a party’s nomination for president is formally announced to the public.
- During the convention, the elected delegates cast their vote for a party candidate and the candidate with the most delegates gets the party’s nomination.



**Step 3: General Election Campaigning**

- The candidates, selected by their political parties, travel the country, explaining their views and plans to the general population and trying to win the support of potential voters.

**Step 4: General Election (Popular Vote)**

- US citizens actually **vote to elect a group of officials** (the total being 538) who choose the president and vice-president. The **number of electors in a state is proportionate to the size of its population**.
- Every US state gets as many electors as it has lawmakers (Senators and House Representatives) in the US Congress. For example, a densely populated state like California has the highest 55 electors while a sparsely populated state like Alaska has three representatives (the minimum each state gets).

- People in every state across the country vote for one president and one vice president. When people cast their vote, they are **actually voting for a group of people known as electors**.
- The voters of each state vote for electors to be the authorized constitutional members in a presidential election. These voters form the **electoral college**.
- Forty-eight states, plus the District of Columbia, have a **winner-takes-all approach to their Electoral College votes**. This means that on election day whoever wins the popular vote by even a single vote, wins all of the state's electoral votes.
- Two states, **Maine and Nebraska**, assign their **electors using a proportional system**.
- To win the election, a candidate needs to **secure more than 270 electoral votes**.

#### **Step 5: Electoral College**

- The US President is elected by the institution called the **Electoral College**. The Constitution only states that the **candidate who receives a majority of votes in the Electoral College becomes president**. It says nothing about the popular vote.
- Hence, in the US Election process, voters merely indicate a preference, but the task of **actually electing the president falls to these 538 individual electors** to the US Electoral College.
- It is possible for candidates to be the most popular candidate among voters and still fail to win enough states to gain majority electoral votes. In practice, electors almost always vote for the candidate who wins the popular vote.
- If an elector votes against their state's presidential pick, they **become "faithless"**. This happened in the 2016 race when seven electoral college votes were cast this way, but the results weren't affected by the faithless electors.
- In 2016, Donald Trump had almost **three million fewer votes than Hillary Clinton**, but **won the presidency because the electoral college gave him a majority**.

## MAINS Q&A

1. What are the provisions of Draft Data Centre Policy 2020? Discuss the importance of such policy in light of the growing digital economy?

### Answer

India is witnessing a transition from an emerging to a developed market economy and the digital sector is slated to play a key role in this journey. The digital sector is not only catalysing economic growth across all sectors but also forms the bedrock for providing better services to citizens, enabling social and financial inclusion, enhancing productivity and helping create a connected ecosystem.

In this light, the Ministry of Electronics and Information Technology (MeitY) has released the Draft Data Centre Policy 2020 to make India a Global Data Centre hub, promote investment in the sector and propel digital economy growth.

### Provisions of Draft Data Centre Policy 2020

#### 1. Enable Ease of Doing Business

- The central government should accord 'infrastructure status' to data centre parks. This will help in facilitating long-term credit from domestic and international lenders at easier terms.
- There should be a single-window, time-bound clearance system to set up a data-centre park.
- Formulation of Data Centre Incentivization Scheme (DCIS) for promotion of Data Centre Parks / Data Centre.

#### 2. Favourable Ecosystem For The Operations Of Data Centres

- Facilitate the availability of uninterrupted, clean and cost-effective electricity for Data Centres.
- MeitY to work with the Department of Telecommunications (DoT) to facilitate robust and cost-effective connectivity backhaul.
- Data Centres to be declared as an Essential Service under "The Essential Services Maintenance Act, 1968 (ESMA)"

#### 3. Setting-up of Data Centre Economic Zones

- Demarcation of specific zones with necessary infrastructure such as roads, running water and electricity to set up data centre parks.
- The Government of India also proposes to set-up at least 4 Data Centre Economic Zones (DCEZ) in the country, as a Central Sector Scheme - DCEZ Scheme.

#### 4. Promote Indigenous Technology Development, Research And Capacity Building

- Promote and encourage the use of indigenous hardware (IT as well as non-IT equipment) & software products used in Data Centres, thereby reducing overall import burden of the country.
- Collaborate with the Ministry of Skills Development and Entrepreneurship (MSDE) and leading academic institutes to impart large scale training to the workforce on Data Centre, Digital and Cloud technologies, and facilitate sector linkages for such trained workforce.

#### 5. Institutional Mechanism for Policy Governance

- An Inter-Ministerial Empowered Committee (IMEC) to be set up under the Chairmanship of Secretary, MeitY 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 also proposed to be set up, which would act as an **interface between the sector and the Government**.

### **Need For Such Policy**

- With over a billion mobile phones and more than 700 million internet subscribers, India has also witnessed an exponential growth in digital-commerce, digital entertainment and use of social media. This policy **intends to accelerate the projected Data Centre growth** and investments in the sector.
- This need for data centre parks is further **stimulated by the adoption of emerging technologies** such as quantum computing, artificial intelligence, internet of things etc
- The **size of the digital population** in India and the growth trajectory of the digital economy **necessitates a strong growth of Data Centres**, which has the potential to fulfil the growing demands of the country.
- Need for Data Centre infrastructure within the boundaries of the country is further **necessitated by the data localization provisions** of the proposed Data Protection Act and **for protection of the digital sovereignty** of the country in an increasingly connected world.
- This need for Data Centre infrastructure in the country **opens up a potential opportunity for investments** of the order of USD 4.9 billion by 2025.

### **Way Forward**

The size of the digital economy in India is **estimated to grow from \$ 200 billion in 2017-18 to a staggering \$ 1 trillion by 2025**. To achieve this, it is important to **remove impediments to its growth** such as lack of infrastructure or Industry status of the Data Centres, complex clearance processes and time-consuming approvals, high cost of power, etc.

This policy framework will go a long way in accelerating the growth of a secure digital economy and give an impetus to the government's Digital India initiative.

**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 Economic Zone (DCEZ):** It would be concentrated and specialized Data Zones, with the most conducive non-IT and IT infrastructure, connectivity, power and regulatory environment.

**Data Centre Incentivization Scheme:** It is a projected scheme outlay that will be published by MeitY to provide the scheme details to provide the fiscal and non-fiscal benefits to the Data Centre sector and Cloud Service providers.

2. **Recently Maharashtra government announced the setting up of a desalination plant in Mumbai, becoming the fourth state in the country to experiment with the idea. In this light discuss what are desalination Plants and the challenges associated with their implementation?**

### **Answer**

Worldwide, desalination is seen as one possible answer to stave off water crisis. 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 (RO)** 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 but **leave salt and most other impurities behind**, releasing clean water from the other side. These plants are mostly set up in areas that have access to sea water.

### Desalination in India

- 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 two plants **supply 100 million litres a day (MLD) each to Chennai**. Two more plants are expected to be set up in Chennai.
- The other states that have proposed these plants are **Gujarat**, which has announced to set up a 100 MLD RO plant at the Jodiya coast in Jamnagar district. There are also proposals to set up desalination plants in Dwarka, Kutch, Dahej, Somnath, Bhavnagar and Pipavav, which are all coastal areas in Gujarat. **Andhra Pradesh**, too, has plans of setting up a plant.

### Challenges In The Implementation

- **A Costly Affair:** Desalination is an expensive way of generating drinking water as it requires a high amount of energy. On an average, it costs **about ₹900 crore to build a 100 MLD-plant**. To remove the salt required, there has to be a source of electricity, either a power plant or a diesel or battery source. It is estimated that it cost ₹3 to produce 100 litres of potable water.
- **Deposition of brine:** Because RO plants convert seawater to fresh water, the major environmental challenge they pose is the deposition of brine (highly concentrated salt water) along the shores. Ever since the Chennai plants have started to function, fishermen have complained that the brine being deposited along the seashore is triggering changes along the coastline and reducing the availability of prawn, sardine and mackerel.
- **Hyper salinity along the shore:** Environmentalists are saying that hyper salinity along the shore affects plankton, which is the main food for several of these fish species.
- **Loss of marine resource:** Moreover, the **high pressure motors** needed to draw in the seawater end up sucking in small fish and life forms, thereby crushing and killing them — again a loss of marine resource.
- **Usage of Groundwater:** Construction of the RO plants required troves of groundwater. This was freshwater that was sucked out and has since been replaced by salt water, rendering it unfit for the residents around the desalination plants.
- **Lack of vital minerals:** There were concerns that desalinated water was short of vital minerals such as calcium, magnesium, zinc, sodium, potassium and carbonates, collectively referred to as TDS. Higher quantities of these salts in desalination plants tend to corrode the membranes and filtration system in these plants. So ideally, a treatment plant would try to keep the TDS as low as possible. Highly desalinated water has a **TDS of less than 50 milligrams per litre, is pure, but does not taste like water**. Anything from 100 mg/l to 600 mg/l is considered as good quality potable water.

### Way forward

- **Technological Alternatives**
- **Low-temperature thermal desalination (LTTD) technique:** It uses the thermal energy sourced from the ocean. LTTD technique works on the principle that water in the ocean 1,000 or 2,000 feet below is about 4° C to 8° C colder than surface water. So, salty surface water is collected in a tank and subject to high pressure (via an external power source). This pressured water vapourises and this is

trapped in tubes or a chamber. Cold water plumbed from the ocean depths is passed over these tubes and the vapour condenses into fresh water and the resulting salt diverted away.

- **Ocean Thermal Energy Conversion:** While the LTTD technique draws power from diesel sets, this will draw power from the vapour generated as a part of the desalination process. This vapour will run a turbine and thereby will be independent of an external power source. While great in theory, there is no guarantee it will work commercially.
    - For one, this ocean-based plant **requires a pipe that needs to travel 50 kilometres underground in the sea** before it reaches the mainland. The National Institute of Ocean Technology (NIOT) has in the past had significant problems in managing such a pipe.
  - The desalination needs identified include reducing costs, ensuring the quality of reclaimed saline water, and enabling the disposal of concentrate. Reduction in the cost of the desalination process is especially critical for small towns.
  - Efforts must also be made to control the amount of organic or biological materials that remain in reclaimed water. Disposal of concentrate is of particular concern to inland cities. A possible solution is to develop beneficial uses for the concentrate.
- 3. The United Nations Children's Fund (UNICEF) has recently released a report 'Averting a Lost COVID Generation'. Highlight the findings of the report.**

### Answer

The United Nations Children's Fund (UNICEF) recently released a report titled 'Averting a Lost COVID Generation'. It is the first UNICEF report to comprehensively highlight the growing consequences of the pandemic for children.

#### **Findings Of The Report**

- Throughout the COVID-19 pandemic there has been a belief that the pandemic does not have a significant effect on the children. However, data shows that this is not true.
- The report shows that while symptoms among infected children are mild, infections in children are rising.
- As of November, 2020, in 87 countries, children and adolescents under 20 years of age accounted for 11 per cent of the 25.7 million infections reported by these countries.

#### **School Closures**

- Globally, 90% of children were impacted due to school closures because of Covid-19, including 743 million girls. More than 111 million of them are in the least developed countries.
- As of October 2020, 265 million children were still missing out on school meals globally.
- The report states that schools are not the main reason of community transmission, and children are more likely to get the virus outside of school settings.
- Moreover, there is strong evidence that, with basic safety measures in place, the net benefits of keeping schools open are higher than the costs of closing them.

#### **Impact On Health And Social Services**

- As per data from UNICEF surveys across 140 countries, Covid-19 related disruptions to critical health and social services for children are the most serious threats to children.

- Globally, the number of children living in multidimensional poverty – without access to education, health, housing, nutrition, sanitation or water – is estimated to have increased by 15 per cent, or an additional 150 million children by mid-2020.
- Around one-third of the countries analyzed, witnessed a drop of at least 10 per cent in coverage for health services such as routine vaccinations, outpatient care for childhood infectious diseases, and maternal health services.
- There is a 40 per cent decline in the coverage of nutrition services for women and children across 135 countries. Further, more than 250 million children under 5 could miss the life-protecting benefits of vitamin A supplementation programmes.
- An estimated 2 million additional child deaths and 200,000 additional stillbirths could occur over a 12-month period due to interruptions to services and rising malnutrition.

### **Findings From India**

- Nearly 12% of Covid-19 infections in India are among children and adolescents under 20 years.
- In India, 1.5 million school closures have impacted 247 million children enrolled in elementary and secondary education, and 28 million children who were attending pre-school education in anganwadi centres. This is in addition to more than 6 million girls and boys who were already out of school prior to the covid-19 crisis.
- In 2019, 18 million people in 53 UNICEF-supported districts in India accessed toilets for the first time.
- UNICEF and partners are now supporting the Ministry of Education to enable access to safe sanitation, water supply and hygiene spaces for children in 150,000 vulnerable schools across the country.
- However, the socio-economic stress and migration due to the Covid-19 has put this access and practice of using toilets at risk.

### **Way Ahead**

- To respond to this crisis, government and development partners across the world should make efforts to ensure that learning of all children continues and that there is a reduction in the digital divide.
- Access to nutrition and health services should be guaranteed, along with protecting the mental health of children and young people.
- All efforts should be made to reverse the rise in child poverty and to ensure an inclusive recovery for all.

Failure to take corrective measures will have a long-term impact on the education, nutrition and well-being of an entire generation of children and young people, and will put the future of an entire generation at risk.

- 4. The Supreme Court recently laid down guidelines to follow in maintenance/alimony related cases. Delineate existing provisions for maintenance cases along with the guidelines specified by the Court.**

### **Answer**

- The Supreme Court recently laid down uniform guidelines for family courts, magistrates and lower courts to follow while hearing the applications filed by women seeking maintenance/alimony from their husbands.

- The judgment was given in a matrimonial case on the question of payment of maintenance by a man to his wife and son under Section 125 of the Code of Criminal Procedure (CrPC).
- **Alimony or maintenance** is the financial support (ordered by a court) that a person has to give to their spouse during separation or after divorce.

### **Existing Provisions**

- There is no provision in the Hindu Marriage Act with respect to the date from which an order of maintenance may be made effective. Similarly, Section 12 of the Domestic Violence Act, does not provide the date from which the maintenance is to be awarded.
- Section 125(2) of CrPC is the only statutory provision which provides that the Magistrate may award maintenance either from the date of the order, or from the date of application.
- In the absence of a uniform law, there is a vast difference in the practice adopted by the Family Courts in the country, with respect to the date from which maintenance must be awarded.
- Usually maintenance cases have to be settled in 60 days, but in reality, it takes years to settle such cases, due to legal loopholes.

### **Current Judgement**

- The Supreme Court held that wives and children are entitled to alimony/maintenance from the husband from the date they apply for the maintenance in the court.
- In order to prevent the dependent spouse from undergoing financial hardships, it is necessary that maintenance is awarded from the date on which the application is filed.
- Both the applicant wife and the respondent husband have to disclose their assets and liabilities in a maintenance case. Any earlier case filed or pending under any other law should also be revealed in court.
- In contemporary society marriages do not last for a reasonable length of time, due to which it would not be fair to order a husband to pay his wife permanent alimony for the rest of her life.

### **Factors For Deciding The Amount Of Maintenance**

- The court ruled that in a marriage of long duration, the duration of the marriage would be a relevant factor in deciding the amount of maintenance.
- On termination of relationship, if the wife is educated and professionally qualified, but had to give up her employment opportunities to look after the needs of family, this factor would also be considered.
- The Court noted, that if the wife is earning, it cannot be a reason for not giving maintenance. The Court has to determine whether the income of the wife is sufficient to maintain herself.
- Serious disability or ill health of a spouse, children from the marriage/dependent relative who require constant care and expenditure, would also be a factor while deciding the maintenance amount.
- Strict proof of marriage will not be a pre-condition for grant of maintenance.
- The expenses of the children, including their education, basic needs and other vocational activities, should be considered by courts while calculating the alimony.
- Education expenses of the children must be normally paid by the father. If the wife is working and earning sufficiently, the expenses may be shared proportionately between the husband and the wife.

### **Enforcement Of Orders**

- An order of maintenance may be enforced/ executed under Section 28A of the Hindu Marriage Act, Section 20(6) of the Domestic Violence Act or Section 128 of CrPC.

- Further, an order or decree for maintenance may be enforced as a money decree under the Code of Civil Procedure.
- Non-payment of maintenance could lead to arrest and detention of the husband and may even lead to confiscation of his assets and their auction to give maintenance to the wife.

The guidelines will go a long way in alleviating the problems faced by women in the country who have to suffer for years during which they do not get the maintenance they deserve for their own and children's upkeep along with acting as a deterrent that may prevent scenarios where they are abandoned at the drop of a hat.

**5. The Lakshmi Vilas Bank (LVB) was recently put under moratorium by the government. Delineate the reasons for imposing a moratorium on LVB and the measures announced by RBI for LVB, along with the impact of recent failures in the banking system.**

**Answer**

The government recently announced that the Lakshmi Vilas Bank has been put under moratorium (temporary suspension of activity).

**Reasons For Putting LVB Under Moratorium**

- The financial position of The Lakshmi Vilas Bank Ltd. has been deteriorating, as the bank has been incurring continuous losses over the last three years.
- The bank's gross non-performing assets (NPAs) are at 25.4% of its advances (loans) as of June 2020, compared to 17.3% a year ago. Further, the bank is also experiencing continuous withdrawal of deposits and low levels of liquidity.
- It has also experienced serious governance issues and practices in the recent years which have led to deterioration in its performance.
- The bank was placed under the Prompt Corrective Action (PCA) framework in September 2019. Prompt Corrective Action (PCA) is a framework under which financially weak and mismanaged banks are monitored by the RBI.
- Moreover, the bank has not been able to raise adequate capital to address these issues. Due to these developments, the RBI applied to the Central Government for imposing a moratorium under section 45 of the Banking Regulation Act, 1949.

**Measures Announced By RBI for LVB**

- Under the moratorium the RBI has restricted withdrawals by depositors at Rs 25,000 from savings and current accounts, and expenditure on any item at Rs 50,000 per month.
- The RBI has also superseded the Board of Directors of LVB, for a period of 30 days, in order to protect the depositors' interest.
- The central bank also appointed TN Manoharan, former non-executive chairman of Canara Bank, as administrator of LVB.

**Merger of LVB with DBIL**

- RBI has announced a scheme to merge LVB with DBS Bank India Ltd (DBIL), an Indian subsidiary of Singapore's DBS Bank. DBIL will bring in additional capital of Rs 2,500 crore, to support credit growth of the merged entity.

- Due to comfortable level of capital, the combined balance sheet of DBIL would remain healthy after the proposed merger.
- With the approval of the Central Government, the Reserve Bank will try to implement the scheme before the expiry of the moratorium, so the depositors do not have to face hardships for a long time.

### **Recent Failures In The Financial System**

- The collapse of Infrastructure Leasing & Financial Services (IL&FS) in 2018 led to liquidity issues and loan defaults in the overall financial system.
- Punjab & Maharashtra Co-op Bank was hit by a loan scam involving Housing Development and Infrastructure Ltd (HDIL) and the bank is yet to be bailed out.
- After a while, the collapse of Yes Bank in March 2020 had a significant impact on the financial system.

### **Impact On Depositors**

- These failures have raised concerns and has an impact on the confidence of depositors. However, the RBI, has assured depositors of LVB that their interests will be protected.
- Further, there is a safety net for small depositors, the Deposit Insurance and Credit Guarantee Corporation (DICGC), an RBI subsidiary, which gives insurance cover on deposits up to Rs 5 lakh in banks.

### **Impact On Investors**

- Shareholders in Yes Bank lost significant wealth as the stock price crashed significantly. Shares of LVB have also dropped significantly after the announcement of the moratorium.
- In the case of LVB, equity capital is being fully written off. This means existing shareholders face a total loss on their investments unless there are buyers in the secondary market.
- In the case of Yes Bank, too, some individual investors faced a total loss on their investments in Additional Tier-1 bonds.

### **Future Outlook**

- The various steps taken by the RBI in the recent past show that the regulator is keen to proactively step in to deal with risks to wider financial sector stability.
- However, irrespective of the health of steps taken by the RBI the health of the overall finance sector remains a significant concern, as the wide-ranging damage due to the COVID-19 pandemic has put a significant stress on the financial system.

Hence, the RBI has its task cut out in ensuring it keeps the crucial engine of credit ticking over as the economy strives to revive, along with maintaining a heightened vigil over scheduled commercial banks as well non-banking financial companies, due to the threat of a systemic downfall from a failure.

- 6. The internal working group (IWG) of Reserve Bank of India (RBI) in its report, recommended that large corporates and industrial houses may be allowed as promoters of banks. Highlight the reasons for the recommendation along with the issues associated with it.**

### **Answer**

- The internal working group (IWG) of Reserve Bank of India (RBI) in its report, recently gave a recommendation that large corporates and industrial houses may be allowed as promoters of banks.

- This should be done after necessary amendments to the Banking Regulation Act, 1949 and strengthening of the supervisory mechanism for large conglomerates.
- The IWG was constituted by the RBI in June, 2020 to review ownership guidelines and corporate structure for Indian private sector banks.

### **Reasons For The Recommendation**

- Even after three decades of rapid growth, the total balance sheet of banks in India still constitutes less than 70 per cent of the GDP. This is significantly lower compared to China, where this ratio is close to 175%.
- Domestic bank credit to the private sector is just 50% of GDP when in economies such as China, Japan, the US and Korea it is more than 150 per cent. In other words, India's banking system has not been able to meet the credit demands of a growing economy.
- There is only one Indian bank in the top 100 banks globally by size. Further, Indian banks are also one of the least cost-efficient.
- Moreover, public sector banks are losing market share to private banks and are struggling with high non-performing assets. On the other hand, private banks are more efficient and profitable.
- The Indian economy, especially the private sector, needs money to grow. Government finances were already under stress before the Covid-19 crisis.
- A significant drop in economic growth and reduction in government revenues has reduced the ability of the government to push for growth through the public sector banks. However, large corporates, have huge financial resources to fund India's future growth.
- Thus, to address the above mentioned issues and to increase the capacity of the banking sector to fund India's growth, the IWG suggested changes to boost private sector banking.

### **Criticisms**

#### **A. Increased Risks**

- In the past, RBI has been against the idea of allowing large corporates to establish banks, as an increase in the number of private banks is risky. This was evident during the global financial crisis of 2008.
- A predominantly government-owned banking system tends to be more financially stable because of the trust in government as an institution.
- Moreover, even in private bank ownership, past regulators have preferred that one single owner does not have high ownership stake in the bank, to reduce the risks.

#### **B. Issue Of Connected Lending**

- Allowing large corporates to establish banks can lead to conflict of interest and connected lending.
- **Connected lending** refers to a situation where the promoter of a bank is also a borrower, as it is possible for a promoter of the bank to divert the depositors' money into their other companies.
- There are various ways of violating the regulations on connected lending and due to complex structures of entities it is difficult to prevent connected lending.
- Connected lending has been happening for a long time and the RBI has found it difficult to stop it. The recent episodes in ICICI Bank, Yes Bank, DHFL etc. were all examples of connected lending.
- The ever-greening of loans (where one loan after another is extended to enable the borrower to pay back the previous one) is often the starting point of such lending.

**C. Other Issues**

- Assessing 'fit and proper' status of the promoters and its large number of group entities is very difficult. India has already seen a number of bank promoters who passed a fit and proper test at the time of licensing but deteriorated later. Bailout costs of such banks will add to the financial burden of the government.
- Even if banking licenses are allotted fairly, it will give undue advantage to large business houses that already have the initial capital that is required initially to form a bank.

Thus, corporate entry into banking will further increase the concentration of economic and political power in certain business houses and will increase the importance of money power even more in the politics, and make it more likely to succumb to authoritarian cronyism.

**Extra Mile****Other Recommendations By IWG**

- Well-run large non-banking finance companies (NBFCs), with an asset size of Rs 50,000 crore and above, including those which are owned by a corporate house, may be considered for conversion into banks.
- The committee further said that such NBFCs, with at least a 10-year track record, may be allowed to convert into banks.
- For payments banks wanting to convert to a small finance bank (SFB), the IWG recommended reduction in the track record of experience as payments bank to three years from five years now.
- The committee has also proposed a review of the "fit and proper" norms, which is the deciding factor in the regulator allowing or rejecting an application for a bank.

**Shareholding And Minimum Initial Capital Requirements**

- The RBI committee has also recommended that after 15 years, promoters should be allowed to hold up to 26% stake in the bank, instead of the current limit of 15%.
- The panel also suggested that the current rule where the promoters of a bank have to hold a minimum of 40% in the bank for the first five years, should continue. The promoters could choose to reduce their holding after the five-year period.
- On non-promoter shareholding, the panel has suggested a uniform limit of 15 per cent for all types of shareholders.
- The minimum initial capital requirement for licensing new banks should be enhanced from Rs 500 crore to Rs 1,000 crore for universal banks and from Rs 200 crore to Rs 300 crore for small finance banks.

**7. Do you agree with the statement that G-20 has become less relevant over the period of time? Justify your position.**

**Answer**

- Established in 1999, G20 was elevated to a premier global forum for international economic cooperation in 2008 **to effectively respond to the global financial crisis of 2008.**
- However, in recent years, the G20 has struggled to maintain its influence as some members shift from multilateralism to more nationalistic policies. This has led to a perception that G20 has outlived its usefulness.

### **G20 Has Outlived Its Usefulness**

- It failed to revive the **sluggish global growth and falling trade** between global economies. It failed to **find a solution to tariff war** between US and China.
- In recent times, it has been observed that the **rivalry between the United States and China hijacks** the agenda of this multilateral gathering.
- The summit often talks of wanting to open up new horizons for development **without giving any indication on how this would be done**. Buenos Aires declaration of 2018 or Osaka declaration of 2019 support this fact.
- So far, it has failed to check the **rising tendency of protectionism and xenophobia** which are evident from BREXIT, termination of GSP by USA and from statements of US President Trump.
- **Reducing the reliance on credit rating agencies** by finding alternate methods was one of the prime objectives of G20. It has not been able to devise the alternate mechanism.
- **Reform in IMF, WTO** is the need of the hour. However, it has failed to such financial reforms.
- For the participating leaders, the **lack of an overarching focus**, has meant the G20 was used mainly to burnish bilateral ties. This was seen at the recently concluded Osaka Summit.

### **G20 Is Still Relevant**

- **Significant Weight** - G20 members **represent around 85 per cent of global gross domestic product**, over **75 per cent of global trade**, and **two-thirds of the world's population**.
- **Promotes Multilateralism** – the G20 is better positioned than older groups to navigate the divide between developed and emerging economies, and the practice of rotating the chair gives them all a chance to shape the global agenda.
- **A number of overarching themes** –Summits usually have a number of overarching themes. In Buenos Aires last year, these were “**the future of work, infrastructure for development and a sustainable food future**”.
- It has gradually broadened its global economy focus to areas like counterterrorism, Climate change, North Korea and Iran.
- The G20 was also credited with **helping avert a shift to protectionism post-global financial crisis in 2008, tripling the International Monetary Fund's budget** and giving development banks more remit.
- **United Fight against COVID-19 Pandemic** – In March 2020, G-20 virtual summit was called to discuss the global challenges posed by the coronavirus outbreak. The leaders pledged to **inject \$5 trillion** into the global economy to reduce the economic impact of the coronavirus pandemic.
- They also agreed to contribute to WHO's COVID-19 Solidarity Response Fund on voluntary basis. This contribution would be in addition to the pledged amount of \$5 trillion.

### **Conclusion**

- There is need to persuade leaders that the task begun in November 2008 is not over. A slowdown is around the corner, a recession in some countries is a few quarters away.
- The **tensions and so-called new cold war** make organisations like the G20 even more important as a **venue for direct contact among leaders**.
- Above all, the current pandemic has created a worldwide economic slow down which makes G-20 even more relevant.

**G20 Summit 2020**

- 15th G20 Leaders Summit was held virtually on November 21, 2020. The two-day summit was **convened by Saudi Arabia, current chair of G20.**
- Theme - "**Realizing Opportunities of 21st Century for All**"
- Indian PM Modi also participated in the summit.
- The main objective of the G20 Summit was to focus on enabling an inclusive, resilient and sustainable recovery from COVID 19 pandemic and its impact.
- Italy would take over the G20 presidency in 2021. It was decided that the G20 Presidency will be held by Indonesia in 2022, **India in 2023** and Brazil in 2024.

**India's Proposal**

- Indian PM called for a **new Global Index for the Post-Corona World** that comprises four key elements –
  - Creation of a vast Talent Pool;
  - Ensuring that Technology reaches all segments of the society;
  - Transparency in systems of governance; and
  - Dealing with Mother Earth with a spirit of Trusteeship.
- India also highlighted the fact that the time has come to **focus on Multi-Skilling and Re-skilling** to create a vast Human Talent Pool. This would not only enhance dignity of citizens but would make our citizens more resilient to face crises.
- It also asserted that any **assessment of new technology should be based on its impact on Ease of Living and Quality of Life.**
- Noting that 'Work from Anywhere' is a new normal in the post-COVID world, India suggested **creation of a G20 Virtual Secretariat** as a follow up and documentation repository.

**8. India's contribution to global peace has been remarkable. In this context, highlight the significant role of India in UN Peacekeeping Operations. Do you think reform in the UN Peacekeeping Operations is the need of the hour?**

**Answer**

India has been actively participating in peacekeeping right from 1950 when it supplied medical personnel and troops to the **UN Repatriation Commission in Korea**. As one of the founding members of the UN, India's contribution to the maintenance of international peace and security has been second to none.

**Contribution of India in UN Peacekeeping**

- India has participated in 51 of the 71 missions and contributed over 2 lakh personnel.
- It has troop deployment in Lebanon, Golan Heights, Congo and South Sudan in addition to staff officers in other missions. India has also set up **2 field hospitals in South Sudan and one in Congo.**
- As of January 2019, India had suffered the **highest number of fatalities** (164 out of 6,593 personnel) among countries that have sent forces to the United Nations peacekeeping mission since 1948.

- Nearly 80% of the Indian peacekeepers are deployed in hostile regions such as **Central African Republic and South Sudan in various sections.**
- India has developed a well-rounded policy for participation in UN peacekeeping operations. **Centre for United Nations Peacekeeping** was set up in September 2000 under the aegis of the United Service Institution of India in New Delhi, with the support of the MEA.
- This Centre besides overseeing the training of contingents earmarked for peacekeeping operations, has undertaken conduct of training courses. These courses have now been formally endorsed by the Department of Peacekeeping Operations at UN HQ.
- In April 2019, a total of 150 Indian peacekeepers serving with the **UN Mission in South Sudan (UNMISS)** have received **medals of honour** for their dedicated service and sacrifice.

#### **Reform In UN Peacekeeping: Need of The Hour**

- There is a **difference of opinion** between the countries of the **Global North and South** with regards to the scope and mandates of peacekeeping operations.
- For instance, countries of the South often demand **more aggressive peacekeeping**. They condemn the North for **not intervening adequately** in Rwanda, Sierra Leone, and Congo, yet at the same time they **accuse them of interventionist policies.**
- Northern countries also hesitate to engage their troops with the UN due to its deficiencies and, also **refuse to finance the measures** needed to improve the UN.
- The countries of the north are asking for more **robust peacekeeping mandates**, while countries of the south fear that this may threaten their sovereignty.
- The peacekeepers are demanding more resources, whereas Global South fears that this would divert resources better spent on fighting poverty.
- The Security Council is accused of **using these operations only in areas, which are geopolitically significant** to them, and ignoring the rest.

#### **Conclusion**

- Acknowledging India's contribution, UN secretary general Antonio Guterres said that it would be an understatement to say that India's contribution to global peace has been remarkable.
- India's spontaneous and unreserved participation in UN peacekeeping operations over the years has been a clear demonstration of the country's commitment to the objectives set out in the UN Charter.
- This commitment has been widely acknowledged and the image of the Indian forces in the international arena is that of highly competent and well-trained professionals.

#### **Extra Mile**

##### **Key Facts**

- India is among the top troop contributing nations to the U.N. and is the **fifth largest with 5,424 personnel in eight countries.**
- India's contribution to the regular budget is 0.83% and 0.16% of the peacekeeping budget.
- China currently has over 2,500 troops in various U.N. missions and has committed another 8,000 troops as standby. China presently contributes 12% of the U.N. regular general budget and 15% of the peace keeping budget.
- The U.S. on the other hand has **never contributed ground troops but contributes 27% of the U.N. peace keeping budget.**

**South East Asian Nations in U.N. Peacekeeping**

- India and the U.S. are looking to undertake **training of military personnel** for the **UN Peacekeeping (UNPK) missions** from South East Asian countries.
- This is being done against the backdrop of China significantly scaling up its troop contribution for UNPK missions.
- **What Is Being Proposed**
  - In 2016, **India and USA** began a joint annual initiative “**UN Peacekeeping Course for African Partners.**”
  - The aim of this initiative was to build and enhance the capacity of African troop and police-contributing countries to participate in the U.N. and regional peacekeeping operations.
  - The U.S. is keen on a similar initiative for South East Asian nations like Vietnam and others.

**Steps Taken So Far to Reform UN Peacekeeping Operations**

- The Secretary-General of the UN, António Guterres, launched an **Action for Peacekeeping (A4P) initiative** on 28 March 2018.
- It was launched to renew the individual and collective commitments of Member States to strengthen peacekeeping operations on the ground and resolve these conflicting issues.
- The **Declaration of Shared Commitments on UN Peacekeeping Operations**, part of the A4P initiative, has highlighted the crucial areas for reforms.
- This includes: *improving the safety of peacekeepers, holding them accountable for their actions, strengthening protection provided by peacekeeping forces, and finding political solutions to conflicts and enhancing the political impact of peacekeeping.*
- UNSC has adopted the resolution 2272 - to hold peacekeepers accountable for sexual abuse.
- **India’s Position on UN Peacekeeping Reform:**
  - India wants that the UNSC should decide peacekeeping operations within 30 days or a maximum period of 90 days in order to avoid tragedies because of delays.
  - India also wants the involvement of experts from various fields in peacekeeping in order to better deal with emerging challenges. There should also be a **sound exit policy for peacekeepers.**

**PRELIMS MCQs**

1. 'Nurturing Neighbourhoods Challenge' recently in news was launched by which among the following?

a) Ministry of Housing & Urban Affairs

b) Niti Aayog

c) Ministry of External Affairs

d) United Cities and Local Governments

**Answer: A**

**Explanation:**

Ministry of Housing & Urban Affairs (MoHUA) launched three initiatives, namely, **the Nurturing neighbourhoods Challenge**, **Data Maturity Assessment Framework** and an on-line training programme for City Data Officers (CDOs) of 100 Smart Cities.

**Nurturing Neighbourhoods Challenge**

- **It is a 3-year initiative, which will support cities to develop, pilot, and scale solutions that enhance the quality of life** of young children, their caregivers and families in the public realm.
- The challenge is conducted with the support of the Bernard van Leer Foundation, Netherlands with technical support from World Resources Institute (WRI) India.
- Through the challenge, **selected cities will receive technical assistance and capacity-building to reimagine parks and open spaces**; improve access to early childhood facilities; adapt public spaces with early childhood-oriented amenities; and create accessible, safe, walkable streets for young children and families.
- Nurturing Neighborhoods Challenge' will be **open for the 100 Smart Cities, cities with population of more than 5 lakh and State/Union Territory capitals.**

**The Data Maturity Assessment Framework (DMAF)**

- It will support cities in the creation of 'culture of data' under the Data Smart Cities initiative of the smart cities Mission.
- The core objective of this framework is to **enable cities to assess their own data maturity with respect to a standardized framework** covering aspects of enabling policies, governance structures, data management, capacity building, and stakeholder engagement at the city level.
- This is expected to play an enabling role in **democratizing the data culture for open- innovation**, collaboration, co-creation and academic research. The assessment for this cycle has been expanded to include cities other than Smart Cities.

**Training Programme for City Data Officers (CDO)**

- Under the CDO Training Programme, MoHUA has partnered with Tata Trusts to launch a guided e-learning course called 'Enabling Data Driven Decision Making in Urban Local Bodies'.
- Specially designed for City Data Officers (CDOs) appointed in the 100 Smart Cities, the course will expose CDOs to basic and advanced tools for data collection, analysis and visualization.
- CDOs will also be enabled to understand principles of effective data-driven governance and show how to create actionable data policy frameworks to enable practical learning and application.

**2. Consider the following statements regarding Measles:**

1. Measles is a bacterial disease.
2. Measles is a contagious disease.

**Which of the statements given above is/are correct?**

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

**Answer: B**

**Explanation:**

- The World Health Organisation (WHO) and US Centres for Disease Control and Prevention recently released a report, titled 'Progress Towards Regional Measles Elimination Worldwide 2000-2019'.
- The report tracks measles cases and deaths related to measles, in 194 WHO member states. It also tracks the progress on vaccination to prevent measles in these countries.

**Findings Of The Report**

- As per the report, number of measles cases across the world increased to 8,69,770 in 2019, the highest number reported since 1996 with a rise in all WHO regions.
- During 2000–2019, the annual number of measles deaths decreased 62%, from 539,000 to 207,500; and an estimated 25.5 million measles deaths were avoided.
- Global measles deaths climbed nearly 50 per cent since 2016, claiming an estimated 2,07,500 lives in 2019 alone.
- Failure to vaccinate children on time with two doses of measles-containing-vaccine, MCV1 and MCV2 is the main reason of these increases in cases and deaths.

**Vaccination Coverage**

- Vaccination coverage against measles remains well below the 95 per cent level needed to control measles and prevent outbreaks.
- MCV1 coverage has been stagnant globally for over a decade at between 84 and 85 per cent. MCV2 coverage has been steadily increasing but is at 71 per cent now.
- In 2019, India was among six countries with the highest number of infants who had not received the vaccine against measles. These six countries account for around half (48%) of the world's total.
- Around 1.2 million children in India did not receive the first dose of the measles vaccine in 2019.
- The other countries are, Nigeria (3.3 million), Ethiopia (1.5 million), the Democratic Republic of the Congo (1.4 million), Pakistan (1.4 million) and the Philippines (0.7 million).

**Impact Of Covid-19 On Measles Vaccination**

- Although reported cases of measles are lower in 2020, efforts to control Covid-19 have had an impact on vaccination drives and efforts to prevent and minimize a measles outbreak.
- As of November 2020, over 94 million people across 26 countries were at risk of not getting vaccinated, because vaccination campaigns were postponed following the Covid-19 outbreak.
- Only eight out of the 26 countries that had stopped the immunization drive for 2020 have resumed their campaigns. This may lead to an increase in the number of measles cases and deaths worldwide.

**Measles**

- Measles is a highly contagious disease caused by a virus. The virus infects the respiratory tract, then spreads throughout the body.
- After getting infected by measles, people gain immunity for the rest of their life and they are very unlikely to contract measles a second time. Measles is a human disease and is not known to occur in animals.
- Measles can be prevented by a highly-effective measles-containing-vaccine (MCV) given in two doses MCV1 and MCV2. The WHO recommends 95% coverage using two doses of measles vaccine to prevent outbreaks. No specific antiviral treatment exists for measles virus.
- Routine measles vaccination for children, combined with mass immunization campaigns in countries with high case and death rates, are key public health strategies to reduce global measles deaths.

**Centres for Disease Control and Prevention**

- The Centres for Disease Control and Prevention (CDC) is the leading national public health institute of the United States.
- The CDC is a United States federal agency under the Department of Health and Human Services and is headquartered in Atlanta, Georgia.
- Its main goal is to protect public health and safety through the control and prevention of disease, injury, and disability in the US and internationally.

**3. Lilavati Award is given to institutes affiliated with?**

- a) All India Council of Technical Education                      b) Medical Council of India  
c) Indian Nursing Council    d) None of the above

**Answer: A**

**Explanation:**

- The All India Council for Technical Education (AICTE) recently launched the Lilavati Award.
- The awards are aimed to award the efforts taken in the field of women's development and to create equality and fairness for women in all sphere of their lives.
- The award will be given to individuals and institutes affiliated with AICTE. It will be given under various sub themes namely, women's health, literacy, self-defence, legal awareness, and sanitation and hygiene.
- Teams can apply based on their work undertaken in the last two years. The team will comprise five people with at least two women members.
- It is hoped that the award will ensure the participation of women and enable them to hold higher positions in educational institutions.

**4. Consider the following statements about Umang App:**

1. **UMANG app is developed by Ministry of Electronics and Information Technology.**
2. **It includes utility services from private organizations.**

**Which of the statements given above is/are correct?**



**Explanation:**

- The Union Cabinet has approved Production Linked Incentive (PLI) scheme worth up to Rs 1.46 lakh crore for 10 key sectors to boost India’s manufacturing capabilities and enhance exports.
- The scheme for these 10 sectors will be in addition to the earlier announced PLI schemes for mobile phones and specified electronic components; pharmaceutical ingredients; and medical devices.

**Details of the Production Linked Incentive scheme**

- The PLI scheme aims to boost domestic manufacturing and reduce imports by providing cash incentives on incremental sales from products manufactured in the country.
- Along with inviting foreign companies in India, the scheme aims to encourage local companies to set up, or expand, existing manufacturing units.
- The Production Linked Incentives will be available over a five-year period and as of now, there is no limit on the number of companies that will be eligible for PLI under each category.
- The PLI scheme will be implemented by the concerned ministries/departments and will be within the overall financial limits prescribed.
- The final proposals of PLI for individual sectors will be evaluated by the Expenditure Finance Committee (EFC) and approved by the Cabinet.
- Savings, if any, from one PLI scheme of an approved sector can be utilized to fund another approved sector by the Empowered Group of Secretaries.
- However, any new sector for PLI will require fresh approval of the Cabinet.

**Sectors Approved**

- The **10 sectors approved** are, Advance Chemistry Cell (ACC) battery; electronic/technology products; automobiles & auto components; pharmaceutical drugs, telecom and networking products; textile products; food products; high efficiency solar PV modules; white goods (ACs and LED); and Speciality steel.
- Among the sectors, Automobiles & Auto Components have received the maximum incentive of Rs 57,042 crore, followed by ACC battery which got an incentive of Rs 18,100 crore.
- In the case of pharmaceuticals, the Rs 15,000-crore incentive will be in addition to an existing Rs 6,940-crore PLI scheme announced earlier this year for building self-reliance in over 50 key drug ingredients.
- The earlier scheme was only for APIs (Active Pharmaceutical Ingredients), KSMs (Key Starting Materials) and drug intermediates.
- The new scheme is expected to be for formulations, complex APIs, biosimilars, vaccines and other critical therapeutic categories.

Sectors	Implementing Ministry/Department	Approved financial outlay over a five-year period Rs.crore
Advance Chemistry Cell (ACC) Battery	NITI Aayog and Department of Heavy Industries	18100
Electronic/Technology Products	Ministry of Electronics and Information Technology	5000
Automobiles & Auto Components	Department of Heavy Industries	57042
Pharmaceuticals drugs	Department of Pharmaceuticals	15000
Telecom & Networking Products	Department of Telecom	12195
Textile Products: MMF segment and technical textiles	Ministry of Textiles	10683
Food Products	Ministry of Food Processing Industries	10900
High Efficiency Solar PV Modules	Ministry of New and Renewable Energy	4500
White Goods (ACs & LED)	Department for Promotion of Industry and Internal Trade	6238
Speciality Steel	Ministry of Steel	6322
<b>Total</b>		<b>145980</b>

**Impact**

- The scheme will make Indian manufacturers globally competitive, attract investment and enhance exports.
- Growth in production and exports of industrial goods will give the Indian industry an exposure to foreign competition and ideas, which will help in improving its capabilities to innovate further.
- Promotion of the manufacturing sector and creation of a productive manufacturing ecosystem will not only enable integration with global supply chains but also establish backward linkages with the MSME sector in the country.
- It will lead to overall growth in the economy and create huge employment opportunities.

**6. Which of the following are functions of Bureau of Energy Efficiency (BEE)?**

1. Give financial assistance to institutions for promoting efficient use of energy.
2. Implement international co-operation programmes related to efficient use of energy.
3. Prepare educational curriculum on efficient use of energy.

Which of the statements given above is/are correct?

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

**Answer: D**

**Explanation:**

The Ministry of Power has issued a notification to bring all electricity distribution companies (DISCOMS) under the Energy Conservation (EC) Act, 2001.

**Details Of The Notification**

- As per the notification, all entities who have been issued distribution licence by State/Joint Electricity Regulatory Commission under the Electricity Act, 2003 are notified as Designated Consumers (DCs).
- Earlier, only DISCOMS with annual energy losses equal to or above 1,000 MU (million units), were notified as designated consumers and used to come under the EC Act.
- Now with this notification, the number of DISCOMS covered under the EC Act will increase from 44 to 102.
- All DISCOMS will now be governed under the various provisions of EC Act, such as appointment of Energy Manager, Energy Accounting and Auditing, identification of Energy Losses Category-wise, implementation of energy conservation and efficiency measures.

**Impact**

- The decision will facilitate energy accounting & auditing as a compulsory activity for all the DISCOMS.
- It will 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 in implementing effective solutions.
- The amendment is expected to increase profitability of DISCOMS and improve the financial state of the DISCOMS.

**Energy Conservation Act, 2001**

- Considering the vast potential of energy savings and benefits of energy efficiency, the government had enacted the Energy Conservation Act, 2001. The Act became effective in 2002.
- The Act provides for the legal framework and institutional arrangement (BEE) to increase energy efficiency in the country.
- It also provides for identification of certain energy intensive industries as designated consumers.
- The Act empowers the Central Government to:
  - Specify energy consumption standards for notified equipment and appliances.
  - Direct compulsory 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.
  - 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.

**Bureau of Energy Efficiency**

- The Bureau of Energy Efficiency is a statutory body established under the provisions of Energy Conservation (EC) Act, 2001.
- The Bureau is responsible for improvement of energy efficiency of the economy through various regulatory and promotional instruments.
- **Functions of BEE**
  - Develop testing and certification procedures and promote testing facilities.
  - Promote innovative financing of energy efficiency projects.
  - Give financial assistance to institutions for promoting efficient use of energy and its conservation.
  - Implement international co-operation programmes relating to efficient use of energy and its conservation.
  - Promote use of energy efficient processes, equipment, devices and systems by creating awareness.
  - Prepare educational curriculum on efficient use of energy and its conservation.

**7. Consider the following statements about Unified Payments Interface (UPI):**

1. UPI is developed by the National Payments Corporation of India.
2. In UPI, a virtual payment address is linked to the bank account.
3. UPI allows multiple bank accounts to be added into a single mobile application.

Which of the statements given above is/are correct?

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

Answer: D

**Explanation:**

- The National Payments Corporation of India (NPCI) has given its approval to WhatsApp to 'go live' on the Unified Payments Interface (UPI) in the multi-bank model.
- According to NPCI, WhatsApp can expand its UPI user base in a graded manner, starting with a maximum registered user base of 20 million in UPI.

**Background**

- WhatsApp has been running the pilot service of its payment service (WhatsApp Pay) in India, for the last two years. However, till now WhatsApp had not received permission to run it on a full scale due to concerns over data localisation.
- WhatsApp has nearly 400 million users in India, but the pilot service of WhatsApp Pay was limited to 1 million customers.
- Currently, third party applications such as PhonePe, Google Pay, Paytm, and Amazon Pay, dominate the UPI ecosystem in India.
- According to industry estimates, the biggest player is Google Pay with over a 40 per cent market share, closely followed by PhonePe.

**Details of WhatsApp Pay**

- After the approval, people across India will now be able to utilise the messaging platform of WhatsApp to send and receive money.
- The payment service will be available in ten Indian regional language versions of WhatsApp.
- There is no fee for the transactions, and the WhatsApp Pay service is supported by 160 banks.

**30% Cap On Transactions**

- NPCI has also put a limit on the share of total number of transaction that a third party application can process in UPI.
- Thus, any third party app, which uses the NPCI platform for sending and receiving payments, will not be able to execute more than 30 % of the total payments being done on UPI. The 30 % will be calculated based on the total volume of transactions processed in the past three months.
- The limit will not be applicable immediately on the existing players and these companies will be given time till January 2023 to comply with the limit norms. For WhatsApp and other future apps on UPI, the limit will apply from January, 2021.
- The move is aimed to help address the risks to the UPI platform and protect the ecosystem, as it is expected to grow significantly in the near future.
- It will also help to prevent a monopoly in the market, by ensuring that one single operator does not end up with most of the market share.

**UPI**

- Unified Payments Interface (UPI) is an instant real-time payment system developed by National Payments Corporation of India, facilitating inter-bank transactions. As many as 189 banks are functional on the UPI platform.
- The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform.
- In UPI, a user just needs to download the UPI app, register details, and create a virtual payment address (VPA). The user needs to link the VPA to their bank account.



- Earlier, if the developer sold property below the circle rate, the differential between the circle rate and the agreed rate was taxable for both buyer and seller.
- Last year, the government allowed developers to sell at rates up to 10% lower than the circle rate without attracting additional tax. The government has now doubled the differential to 20%. This benefit will be available until June 30, 2021.

**Increased Allocation for PMAY-Urban**

- The government has increased allocation to give subsidy under the Prime Minister Awas Yojana (PMAY-Urban) by Rs 18,000 crore, over and above the Rs 8,000 crore already allocated in the Budget. Under PMAY, the government gives interest subsidies on loans between Rs 2.35 lakh and Rs 2.7 lakh.
- As per the finance ministry, the move would create 78 lakh jobs, and improve production and sale of steel & cement, giving a boost to the overall economy.

**Measures For Construction And Infrastructure**

- To free up working capital for contractors bidding for public projects, the Centre has decided to reduce the performance security payable on individual contracts to 3% from the current rate of 5% to 10% of project value.
- The earnest money deposit requirement to bid for tenders is also being replaced by just a bid security declaration for a period of one year.
- These relaxations have been provided until December 31, 2021 and will act as a major relief for the construction sector and will increase their financial ability to carry out the project.
- The government has also announced Rs 6,000 crore of equity in the National Investment and Infrastructure Fund (NIIF) to support debt financing totalling Rs 1.1 lakh crore by 2025.

**Measures To Boost Employment: Atmanirbhar Rozgar Yojana**

- To boost formal sector employment, a new Atmanirbhar Rozgar Yojana has been launched by the government.
- Under this, the government will pay the **Employees' Provident Fund (EPF) contributions** for two years of all new employees hired between October 1, 2020 and June 30, 2021.
- The definition of 'new employee' has been kept flexible to include anyone who was part of the EPF net earlier, but had lost their job between March 1 and September 30, 2020. This may help improve such workers' re-employment prospects.

Details of Atmanirbhar Rozgar Yojana

- Under the scheme, government will pay the PF contribution for workers with wages up to Rs 15,000.

**Booster dose** | A look at the fresh stimulus steps announced by the Finance Minister

 <p><b>Jobs</b> A new <b>Atmanirbhar Bharat Rozgar Yojana</b> mooted to spur job creation</p> <ul style="list-style-type: none"> <li>• Govt. to foot <b>two years' EPF dues</b> (24% of wages) for new employees hired between Oct. 1, 2020 and June 30, 2021</li> <li>• People earning less than <b>₹15,000 per month</b> who lost jobs between March 1 and Sept. 30 to be covered if re-employed</li> <li>• Firms with more than 50 employees must hire <b>at least 5 more</b> to be covered</li> </ul>	<ul style="list-style-type: none"> <li>• Additional <b>₹10,000 crore</b> announced for the PM Garib Kalyan Rozgar Yojana which could be used for MGNREGS or PM Gram Sadak Yojana</li> </ul>  <p><b>Salaried taxpayers</b> Some income tax relief for purchase of residential units of value up to <b>₹2 crore</b></p> <ul style="list-style-type: none"> <li>• Permissible differential under Income Tax Act between circle rate and agreement value to be raised from <b>10% to 20%</b> for primary sale of new units till June 30, 2021</li> </ul>	<p>demand for 25 lakh MT of steel and 131 lakh MT of cement</p> <ul style="list-style-type: none"> <li>• Free up infrastructure contractors' capital by reducing performance security charges, and scrapping earnest money deposits for bidding on government projects</li> <li>• <b>₹6,000 crore</b> equity infusion in debt platform of National Infrastructure Investment Fund, which will be used to raise <b>₹1.1 lakh crore</b> for infra projects by 2025</li> <li>• <b>₹10,200 crore</b> additional funding for capital and industrial expenditure</li> </ul>
 <p><b>Farmers</b> Govt. to provide <b>₹65,000 crore</b> as fertilizer subsidy to ensure adequate availability in view of the expected rise in sown area</p>	 <p><b>Infrastructure</b> <b>₹18,000 crore</b> allocated to PM Awas Yojana to build urban housing, over the <b>₹8,000 crore</b> allotted in the Budget</p> <ul style="list-style-type: none"> <li>• Govt. expects this would create <b>78 lakh new jobs</b> and drive</li> </ul>	 <p><b>Stressed sectors</b> Emergency Credit Line Guarantee Scheme extended till March 31, 2021</p> <ul style="list-style-type: none"> <li>• New scheme to provide credit to firms in the healthcare sector and 26 other sectors identified as 'stressed'</li> </ul>

- For establishments employing **up to 1,000 employees**, the total PF contribution of 24 per cent for both employers and employees will be paid by the government.
- For establishments employing **more than 1,000 employees**, the employees' share of 12 per cent will be contributed by the government.
- To be eligible for the scheme, firms having more than 50 employees must hire at least five new workers, while those with less than 50 employees must hire a minimum of two workers.
- The scheme will cover nearly 99.1% of all establishments and an estimated 65% of all those employed under the formal sector.

#### Additional Funding for Pradhan Mantri Garib Kalyan Rozgar Yojana

- The government also announced an additional funding of Rs 10,000 crore, for employment under the earlier announced scheme of the Pradhan Mantri Garib Kalyan Rozgar Yojana.
- The government had earlier identified 116 districts across six states where at least 25,000 workers have returned in each district to provide employment to migrant workers for 125 days by bringing together nearly 25 schemes.
- An amount of Rs 37,543 crore has been spent till now under the scheme.

#### **Measures For Rural Areas**

- To increase rural employment, an additional ₹10,000 crore has been provided for spending through Mahatma Gandhi National Rural Employment Guarantee Act and PM Gram Sadak Yojana.
- Effectively, this takes the total allocations for MGNREGA in the year close to ₹1.1 lakh crore. Around, ₹73,504 crore has already been spent to generate 251 crore person days of employment in this year.
- The measures also include a ₹65,000 crore additional funding for providing fertilizer subsidies to farmers, to support increasing demand due to good monsoon and sharp increase in crop-sown area.

#### **Future Outlook**

- As per Finance Ministry, the recovery in the economy reflects strong economic growth. Even the RBI now expects the economy to contract at a slower pace in the second quarter than earlier expectations.
- However, the RBI also said that there are several risks to growth due to the second global COVID-19 wave which could impact global growth, and India's exports.
- Thus, it is not yet clear whether the recent improvement in the economy will continue beyond the festival season.

#### **9. A technical recession is used to describe -**

- a) Two consecutive years of decline in output**
- b) Two consecutive quarters of decline in output.**
- c) Four consecutive quarters of decline in output**
- d) None of the above**

**Answer: B**

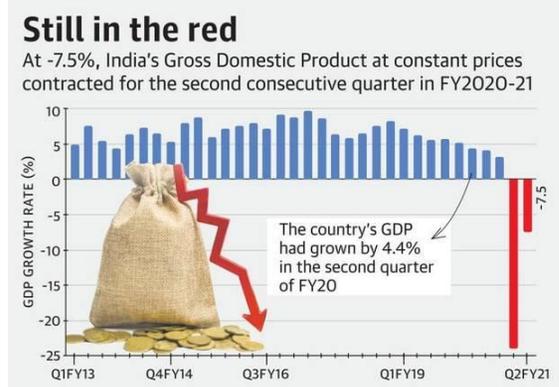
#### **Explanation:**

- India's economy contracted by 7.5% in the July-September quarter following a record contraction of 23.9% in the previous quarter (April-June quarter).

- With the contraction in two successive quarters, India has entered into a technical recession in the first half of the current fiscal year (for the first time in the history.)
- With this, the GDP growth in April-September, the first half of this financial year, contracted by 15.7% compared with a 4.8% growth during the same period last year.

### Technical Recession

- A technical recession is a term used to describe two consecutive quarters of decline in output. In the case of a nation's economy, the term usually refers to back-to-back contractions in real GDP.
- The most significant difference between a 'technical recession' and a 'recession' is that while the former term is mainly used to capture the trend in GDP, the latter expression encompasses a more broad-based decline in economic activity that covers several economic variables including employment, household and corporate incomes and sales at businesses.



- 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.
- Another key feature of a technical recession is that it is most often caused by a one-off event (in this case, the COVID-19 pandemic and the lockdowns) and is generally shorter in duration.

### Sector Wise Performance

- **Agriculture**, which was the only sector to record growth between April and June this year, grew at the same pace of 3.4% in the second quarter.
- The **manufacturing sector** came out of the negative region (39.3% contraction in Q1) to post a 0.6% growth in Q2.
- Electricity, gas, water supply and other utility services also recorded 4.4% growth in the second quarter, recovering from a 7% contraction in Q1.
- The **construction sector**, which had contracted 50.3% in the first quarter at the peak of the lockdown, saw some improvement with reduction in contraction to 8.6% in the second quarter. The **mining sector** also improved by reducing the contraction of 23.3 per cent in Q1 to 9.1 per cent in Q2.
- During, July-September, the services sector was the worst hit, with trade, hotels, transport, communication and broadcasting services posting a contraction of 15.6%.
- It was followed by 12.2% contraction in public administration, defence and other services, and 8.1% contraction in financial, real estate and professional services.

### Reduction In Government Spending

- As per economists, the improvement in GDP in the second quarter was mainly due to private sector improvement, as government spending has reduced.
- The reduction in government spending in the second quarter led to a 22% contraction in government final consumption expenditure.
- As a result, this component turned into the worst performer on the expenditure side from being the best performer with a 16.4% expansion in the first quarter.



- The objective of PMKSY is to supplement agriculture, modernize processing and decrease agri-waste.

**Schemes Under PMKSY**

Under PMKSY the following schemes are to be implemented.

- Mega Food Parks
- Integrated Cold Chain, Value Addition and Preservation Infrastructure
- Creation/Expansion of Food Processing/Preservation Capacities
- Infrastructure for Agro Processing Clusters
- Scheme for Creation of Backward and Forward Linkages
- Food Safety & Quality Assurance Infrastructure
- Human Resources and Institutions

**Impact**

- The implementation of PMKSY will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
- It will help in providing better prices to farmers and is a big step towards doubling of farmers' income.
- It will create huge employment opportunities especially in the rural areas, increase the processing level, availability of safe and convenient processed foods at affordable price to consumers and enhance the export of the processed foods.

**11. Consider the following statements regarding Competition Commission of India (CCI):**

1. CCI is a statutory body.
2. CCI has the powers of Civil Court.

Which of the statements given above is/are correct?

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

**Answer: C**

**Explanation**

- The Competition Commission of India (CCI) has initiated a probe against Google for abuse of its dominant market position, to promote its payments app, Google Pay.
- The Competition Commission of India (CCI) received six different types of complaints from Indian startups, against Google. However, CCI has chosen to investigate only two complaints for violations of antitrust rules as follows:
  - Compulsory use of Google Play's payment system for purchasing the apps and IAPs (in-app purchases) in the Play Store.
  - Pre-installation of Google's GPay on Android smartphones.
- This is the third major antitrust probe ordered by CCI against Google and the various services it offers in the country. Google is also facing antitrust probes in the European Union and the United States.

**CCI's Investigation Order**

- In its order to investigate, the CCI criticised Google's policy to charge 30 per cent commission for all app and in-app purchases.
- It further said that, since Google's Play store has about 90 per cent share of all downloads, a significant volume of payments being processed in the market is controlled by Google.
- CCI believes that Google's billing policy, (which has been postponed in India to April 2022) is unfair and it can increase the cost for Google's competitors in the market.
- If the application developers, in response, raise their subscription fees to cover these costs or remove/reduce premium/ paid subscription offers for users, it may affect user experience, cost and choice.
- Moreover, the conditions imposed by Google, limit the ability of app developers to offer payment processing solutions of their choice to the users.
- Based on the current knowledge, the Commission feels that Google's actions are in violation of Section 4 of the Competition Act and therefore, must be investigated. **Section 4 of the Competition Act** is related to abuse of dominant market position.
- The Commission has directed to finish the probe and submit the report in 60 days.

**Google's Response**

- Google has said that Google Play is not the only app distribution option and multiple other distribution channels exist for apps on the Android platform.
- It believes that the CCI will find that it operates in an extremely competitive environment, and users choose Google Play because it offers consumers a simple and secure payment experience.

**Competition Commission of India (CCI)**

- Competition Commission of India is a statutory body responsible for enforcing The Competition Act, 2002 throughout India. It was established in 2003 and became fully functional in 2009.
- CCI consists of a **Chairperson and 6 Members** appointed by the Central Government.
- The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control), which causes or likely to cause an appreciable adverse effect on competition within India.
- The following are the **objectives of the Commission**.
  - To prevent practices having adverse effect on competition.
  - To promote and sustain competition in markets.
  - To protect the interests of consumers.
  - To ensure freedom of trade.
- 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.
- **Powers of CCI**
  - The Commission has the power to direct any enterprise or association of enterprises to discontinue an abuse of dominant position. The Commission can also impose penalties on enterprises for abuse of dominant position.
  - It can direct an enterprise in a dominant position to be divided, to ensure that such enterprise does not abuse its dominant position.





- 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.

### **The Controversy**

- While identifying as Assamese, the 'Miya' community feels that like other ethnic groups, they too should celebrate their own culture and heritage within the larger Assamese fold.
- They believe their heritage is unique to Assam's char dwellers because it is a product of a hundred years of assimilation with the Assamese society.
- There is opposition to the museum, as it has been proposed in the Kalakshetra, which is a cultural complex in Guwahati named after neo-Vaishnavite reformer Srimanta Sankardev, and was set up as part of the Assam Accord. Various sections of the society claim that this has hurt Assamese sentiments.

### **15. Consider the following statements regarding the ASEAN Defence Ministers' Meeting Plus (ADMM-Plus):**

- 1. It is a platform for ASEAN and its six Dialogue Partners to strengthen security and defence cooperation in the region.**
- 2. India is not included in the ADMM-Plus mechanism.**

**Which of the above statements is/are Correct?**

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

**Answer – D**

### **Explanation**

Vietnam invited India for **ASEAN Defence Ministers' Meeting-Plus** (ADMM Plus) being hosted by Vietnam in December 2020. This invitation was extended during the recently held talks between Defence Ministers of India and Vietnam.

### **About ADMM-Plus**

- The ADMM-Plus is a platform for **ASEAN and its eight Dialogue Partners** to strengthen security and defence cooperation for peace, stability, and development in the region.
- The eight dialogue partners are - Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States (collectively referred to as the "**Plus Countries**")
- The Inaugural ADMM-Plus was convened in Hanoi, Vietnam, in October 2010.
- Since 2017, the ADMM-Plus meets annually, to allow enhanced dialogue and cooperation among ASEAN and the Plus Countries in the midst of an increasingly challenging regional security environment.

- The ADMM-Plus currently focuses on **seven areas of practical cooperation**, namely maritime security, counter-terrorism, humanitarian assistance and disaster management, peacekeeping operations, military medicine, humanitarian mine action and cyber security

**16. Mission Sagar – II is related to**

- a) **Naval exercise between India and Seychelles**
- b) **Strengthening Coastal Security of India**
- c) **Maritime exercise conducted by member countries of IORA**
- d) **None of the above**

**Answer – D**

**Explanation**

- As part of humanitarian Mission Sagar – II, India is providing assistance to Friendly Foreign Countries to **overcome natural calamities and COVID-19 pandemic**.
- Under this mission, Indian Naval Ship will deliver food aid to **Sudan, South Sudan, Djibouti and Eritrea**.
- Mission Sagar-II, follows the ‘Mission Sagar’ undertaken in May 2020.

**Mission Sagar**

- India launched **Mission Sagar** as part of the **government’s outreach initiative towards five Island nations in the Indian Ocean** amidst the ongoing COVID-19 pandemic.
- Five Island Nations are - **Maldives, Mauritius, Seychelles, Madagascar and Comoros**
- Under the mission, India will provide food Items, COVID related Medicines including HCQ Tablets and Special Ayurvedic Medicines with Medical Assistance Teams to these nations.
- This deployment as ‘Mission Sagar’ is in line with **India’s role as the first responder in the region**.
- It is also in consonance with the vision of **Security and Growth for All in the Region ‘SAGAR’** promulgated in March 2015.

**17. Consider the following statements regarding the Organisation of Islamic Cooperation (OIC):**

1. **OIC has a permanent secretariat in Jeddah, Saudi Arabia.**
2. **Few members of the OIC have veto.**
3. **India is not a member of OIC.**

**Which of the above statements is/are Correct?**

- a) **1 and 2 Only**
- b) **2 and 3 Only**
- c) **1 and 3 Only**
- d) **1, 2 and 3**

**Answer – C**

**Explanation**

- India has hit out at the Organisation of Islamic Cooperation (OIC) for making factually incorrect and unwarranted references to Jammu and Kashmir.

- The **47th session of the Council of Foreign Ministers (CFM)** of the OIC in its recently held meeting at Niamey in Niger had made a reference to India over its policies on Jammu and Kashmir.

### India's Response

- India **strongly and categorically rejected** the resolution adopted by the OIC terming it as factually incorrect, gratuitous and unwarranted references to India.
- India has **reiterated that OIC has no locus standi** in matters strictly internal to India including that of Union Territory of Jammu and Kashmir which is an integral and inalienable part of India.

### India's Relationship with OIC

- At the 45<sup>th</sup> session of the summit in 2018, Bangladesh suggested that India, where more than 10% of the world's Muslim population live, should be given observer status. It was vetoed by Pakistan.
- It was Qatar that first proposed 'Observer' status for India at the OIC Foreign Ministers' meet in 2002.
- India was **invited to attend the OIC meeting in 1969** but Pakistan prevailed upon and got the **invite withdrawn**.
- However, India, in 2019, made its **maiden appearance at the OIC summit**, as a guest of honour. The then External Affairs Minister Sushma Swaraj addressed the inaugural plenary in Abu Dhabi.

### About OIC

- The Organisation of Islamic Cooperation (OIC) (formerly Organization of the Islamic Conference) is the second largest inter-governmental organization after the United Nations.
- It has **membership of 57 states** spread over four continents.
- The Organization was established upon a decision of the **historical summit which took place in Rabat**, Kingdom of Morocco on 25 September 1969 as a result of criminal arson of Al-Aqsa Mosque in occupied Jerusalem.
- It has a permanent secretariat in **Jeddah, Saudi Arabia**.
- This organization has been termed a **toothless tiger** by many analysts when it comes to dealing with squabbles among member states.
- Every member has a **veto**. As a result, the organization **fails to take a critical stand** on serious disputes that are shaping in the middle east.
- The theme of 46th ministerial meet was **"50 years of Islamic cooperation: The road map for prosperity and development"**.

### 18. Consider the following statements regarding Asia-Pacific Economic Cooperation (APEC):

1. **APEC is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.**
2. **The APEC Secretariat is based in Singapore.**
3. **India is not a member of APEC.**

Which of the above statements is/are Correct?

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

Answer – D









25. BNT162b, recently seen in news, is related to

- a) COVID-19
- b) New Variety of Biofortified Wheat
- c) An Exoplanet
- d) Newly found Virus

**Answer: A**

**Explanation**

- American pharma company Pfizer's m-RNA vaccine candidate had been found to be **more than 90% effective in preventing Covid-19** in participants without evidence of prior SARS-CoV-2 infection.
- Pfizer-BioNTech candidate, **BNT162b**, is a **single nucleoside-modified messenger RNA (modRNA) vaccine**, which is made of a short segment of genetic material — the messenger RNA.
- **BioNTech** is the German biotech company partnering with Pfizer for this vaccine.
- It **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**.

26. Consider the following sentences

1. **Indian Space Research Organisation (ISRO) successfully launched EOS-01, an earth observation satellite by a GSLV rocket.**
2. **EOS-01 is another Radar Imaging Satellite (RISAT) that will work together with RISAT-2B and RISAT-2BR1 launched last year.**

Which of the above sentences is/are correct?

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

**Answer: B**

**Explanation:**

- **Indian Space Research Organisation (ISRO) successfully launched EOS-01, an earth observation satellite**, along with nine satellites from foreign countries, by a PSLV rocket.
- EOS-01 is nothing but another **Radar Imaging Satellite (RISAT)** that will work together with **RISAT-2B and RISAT-2BR1** launched last year. 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, Cartosat series of satellites were meant to provide data for land topography and mapping, while Oceansat satellites were meant for observations overseas.
- EOS-01, like 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.
- EOS-01 and 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.



**Answer: A**

**Explanation:**

- The **Department of Science & Technology** has selected 21 scientists associated with **innovative research ideas in different fields 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.**
- Scientists selected for the award will be allowed to **pursue unfettered research with freedom and flexibility** in terms of expenditure as approved in the research plan.
- Under the scheme, the awardees are given support by the DST which will cover all the requirements for performing the research and will include a fellowship of Rs. 25,000/- per month for five years. In addition to this, DST supports the awardees by giving them a research grant of 5 lakh Rupees for 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.**

**29. Consider the following statements about the Quick Reaction Surface-to-Air Missile (QRSAM):**

- 1. The QRSAM is a long-range surface-to-air missile (SAM) system.**
- 2. It will replace the Akash missile defence system and has a range of 50 to 100 km.**

**Which of the statements given above is/are correct?**

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

**Answer: D**

**Explanation**

- India successfully test-fired the **Quick Reaction Surface-to-Air Missile (QRSAM)** system at an **integrated test range in Chandipur** off the Odisha coast.
- The QRSAM is a **short-range surface-to-air missile (SAM) system**, primarily designed and **developed by Defence Research and Development Organisation (DRDO)** to provide a protective shield to moving armoured columns of the Army from enemy aerial attacks.
- It is a **canister-based system**, which means that it is stored and operated from specially designed compartments. In the canister, **the inside environment is controlled**, thus along with making its transport and storage easier, the shelf life of weapons also improves significantly.
- It has been designed for induction into the Army **to replace the 'Akash' missile defence system and has a range of 25 to 30 km.**
- The missile system was **fully indigenous** with **active radio frequency seekers, electro-mechanical actuation systems** sourced from various industries.
- The QRSAM weapon ensemble, which functions on the move, consists of a fully automated command and control system, **two radars and one launcher.** Both radars have 360-degree coverage with **"search on move"** and **"track on move"** capabilities.
- The system is compact, uses a **single-stage solid propelled missile** and the weapon system would be **ready for induction by 2021.**









● **Significance Of Studying Venus**

- Venus is often described as the “**twin sister**” of the Earth because of the similarities in size, mass, density, bulk composition and gravity.
- It is believed that **both planets share a common origin**, forming at the same time out of a condensing nebulosity around 4.5 billion years ago.
- Venus is around 30% closer to the Sun as compared to Earth resulting in much higher solar flux. Solar flux, or concentrated sunlight, is a measure of how much light energy is being radiated in a given area.

34. Panna Tiger Reserve recently declared as a UNESCO Biosphere Reserve is located in

- a) Arunachal Pradesh
- c) Odisha

- b) Madhya Pradesh
- d) Sikkim

Answer: B

Explanation:

- **Panna Tiger Reserve (PTR) in Madhya Pradesh (MP)** was included in the global network of biosphere reserves by the United Nations Educational, Scientific and Cultural Organisation (UNESCO).
- PTR last year witnessed a **remarkable turnaround in tiger population by increasing the number of big cats to 50 from zero estimated a decade ago**. The Panna 'National Park' was initially set up in 1981. It received the status of a tiger reserve in the early 1990s when the "Project Tiger" was started and gradually the population of tigers started increasing.
- Report by the All India Tiger Estimation made **Madhya Pradesh the state with the highest number of tigers**. The state had a total of 526 big cats according to 2018 census. After Madhya Pradesh, Karnataka and Uttarakhand have the highest number of tigers.
- UNESCO's recognition mentioned **Panna Tiger Reserve as a critical tiger habitat**. It stated that the area has undergone substantial ecosystem restoration in the buffer zone. Adding the tiger reserve to UNESCO's list will help in exploring new measures towards the conservation of wildlife and sustainability.
- Covering an area of approx 542.67 sq km, the thick deciduous forest of the Panna National Reserve is the natural habitat of sloth, Indian wolf, Bear Pangolin, Leopard, Gharial, Indian fox and a lot more. It also has **stone carvings that date back to the Neolithic era**.

**Additional Information**

**Biosphere Reserve (BR)**

- Biosphere Reserve (BR) is an **international designation by UNESCO** for representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/marine ecosystems or a combination thereof.
- **UNESCO's Man and the Biosphere Programme (MAB)**, launched in 1971, is an Intergovernmental Scientific Programme under which, countries can designate biosphere reserves.
- World network of biosphere reserves (WNBR) was created in 1977 under MAB program. It covers all internationally designated biosphere reserves and promotes cooperation between countries through exchanging knowledge and best practises.



**Answer: A****Explanation:**

- The Cabinet Committee on Economic Affairs has approved the investment of Rs.1810.56 crore for 210 MW Luhri Stage-I Hydro Electric Project located **on river Satluj which is situated in Shimla & Kullu districts of Himachal Pradesh**. This project will generate 758.20 million units of electricity annually.
- This project is being implemented by **Satluj Jal Vidyut Nigam Limited (SJVNL)** on Build-Own-Operate-Maintain (BOOM) basis with active support from Government of India and State Government.
- The power generated from the Project will help in providing Grid stability and will improve the power supply position.
- Besides **adding valuable renewable energy to the Grid**, the project would also lead to **reduction of 6.1 lakh Tons of carbon dioxide from environment** annually, thus contributing to improvement in air quality.
- The construction activities of the project will result in **direct & indirect employment to around 2000 persons** and will contribute to overall socio-economic development of the State.
- The Project Affected Families will be **provided with 100 units of free electricity per month for ten years**.

**37. Polavaram multi-purpose irrigation Project recently in news is located in which among the following rivers?**

- |             |            |
|-------------|------------|
| a) Godavari | b) Periyar |
| c) Vaigai   | d) Betwa   |

**Answer: A****Explanation**

- Recently, Minister of Irrigation (Water Resources), Andhra Pradesh has announced that Polavaram multi-purpose irrigation project will be ready by the end of 2021.

**About Polavaram multi-purpose irrigation project**

- The Polavaram Project is an under construction multi-purpose irrigation project on the **Godavari River in Andhra Pradesh**.
- It has been accorded national project status by the Centre.
- Polavaram project is very important to the people of Andhra Pradesh as it will irrigate nearly 3 lakh ha of land, generate hydel power with installed capacity of 960 MW and provide drinking water facilities to 25 lakh populations, particularly in Visakhapatnam, East Godavari and West Godavari and Krishna Districts.
- The Project also provides diversion of 2,27 T. M.Cum (80 TMC ft.) of Godavari Waters to Krishna Basin.





- The outflowing water after power generation at Sholayar will be made to pass through a tunnel and a turbine to produce power for which, the KSEB claims, there is no need for additional storage facilities.

**Criticisms Against The Project**

- The project is coming in 20 acres of dense evergreen forest. A vast stretch of this evergreen forest, home to rich varieties of mammals, birds, reptiles, and amphibians, has to be cleared for the project and around 2,000 huge trees and 6,000 small trees have to be felled.
- Extensive blasts have to be carried out for making a five-km-long tunnel in the highly eco-sensitive area, which witnessed many landslips during the floods in 2018.
- Both the **Madhav Gadgil and K. Kasthurirangan committees** have noted these forests as environmentally sensitive areas.
- According to the River Protection Forum, the project, which it says is not economically viable, was granted the go-ahead without obtaining permission from the tribal communities which enjoy inviolable community forest rights in the area.

### Haryana Clears Bill On Right To Recall Panchayat Member

The Haryana Assembly has passed a Bill which provides the right to recall members of Panchayati Raj institutions to those who elected them and gives women 50% reservation in these rural bodies.

#### **Haryana Panchayati Raj (Second Amendment) Bill, 2020**

- **Right to Recall:** The Bill allows the recall of village sarpanches and members of the block-level panchayat samitis and district-level zila parishads if they fail to perform.
  - To recall a sarpanch and members of the two bodies, **50% members of a ward or gram sabha have to give in writing that they want to initiate proceedings.**
  - This will be followed by a **secret ballot, in which their recall will require two-third members voting against them.**
- **Reservation to Backward Classes Category:** The Bill proposed 8% reservation to the “more disadvantaged” among the Backward Classes.
- **Enhancing Participation Of Women:** The Bill is aimed at enhancing participation of women in the three-tier panchayati raj system by allowing **50% reservation** to them in gram panchayats, panchayat samitis and zila parishads.

#### **The Right To Recall Legislators**

- A recall election is typically a **process by which voters seek to remove elected officials through a direct vote** before their term is completed.
- It has been in place in Canada’s Legislative Assembly of British Columbia since 1995. In the United States, the states of Alaska, Georgia, Kansas, Washington etc. allow for recall on specific grounds such as misconduct or malfeasance.

#### **It’s Progress In India**

- This is not a new concept for India. The concept of “**Rajdharm**”, wherein the **lack of effective governance was a cause for removal of a king**, has been spoken about since the Vedic times.
- M.N. Roy, proposed, in 1944, a shift to a decentralised and devolved form of governance, allowing for representatives to be elected and recalled.
- **Section 47 of the Chhattisgarh Nagar Palika Act, 1961**, provides for holding of elections to recall elected officials due to non-performance. The Right to Recall also **exists at local level bodies in Madhya Pradesh, Bihar and Chhattisgarh.**
- In 2011, **Gujarat State Election Commission** had advised amendments to introduce a right to recall of elected members in municipalities, districts, talukas and village panchayats.

#### **Need For Right To Recall**

- **No recourse for the electorate:** There exists no recourse for the electorate if they are unhappy with their elected representative. The Representation of the People Act, 1951, only provides for “vacation of office upon the commission of certain offences and does not account for general incompetence of the representatives or dissatisfaction of the electorate as a ground for vacation.
- **Vertical accountability:** Having such a right offers a mechanism to ensure vertical accountability. The true idea of democracy can only be achieved on this edifice of accountability for politicians.
- **Check on corruption:** Such a right would be a significant check on corruption along with ongoing criminalisation of politics.

- **Limit campaign spending:** Having a process to recall could limit campaign spending, as morally skewed candidates weigh the risk of being recalled.
- **Engender direct democracy:** This right would help engender direct democracy in our country, broadening access and raising inclusiveness. To deepen democracy, the right to recall must be given hand in hand with the right to vote.
- **In a first-past-the-post system,** not every elected representative truly enjoys the mandate of the people. Logic and justice necessitate that if the people have the power to elect their representatives, they should also have the power to remove these representatives when they engage in misdeeds or fail to fulfil their duties.

### **Way Forward**

- To encourage the process of the right to recall, legislative change is needed which seeks to introduce recall petitions, for elected representatives in the Lok Sabha and in respective Legislative Assemblies.
- While it is necessary to **ensure that a recall process is not frivolous and does not become a source of harassment to elected representatives,** the process should have several built-in safeguards such as an initial recall petition to kick-start the process and electronic-based voting to finally decide its outcome.
- Furthermore, it should ensure that a **representative cannot be recalled by a small margin of voters** and that the recall procedure truly represents the mandate of the people.
- To **ensure transparency and independence,** chief petition officers from within the Election Commission should be designated to supervise and execute the process.

### **Separate Religious Code For Sarna Tribals**

The Jharkhand legislature has passed a government-backed resolution that would allow **tribals in the state to identify with a distinct religion.** If the Centre approves the new Sarna code, Census 2021 would have to make space for a new religion.

#### **Background**

- Currently, the **census classifies people under six religions** - Hindu, Muslim, Christian, Sikh, Jain, and Buddhist - while those who do not subscribe to these are clubbed under the 'Other' category.
- Tribal groups have long demanded that **followers of their 'Sarna' religion be listed separately** as they worship nature and have a distinct tradition and culture. Some have threatened to boycott the census exercise if the demand is not met.
- A separate column for tribe as a religious identity was included in the census from 1871 to 1951, but was subsequently dropped. For the last many years several protests and meetings have been held by various tribal groups in Jharkhand and elsewhere pushing the same demand.
- The National Scheduled Tribes Commission had earlier suggested that Sarna Dharma be given an independent category in the 2011 Census Religion Code. The organizations then asked the tribals to choose the 'other' option in the census.
- With the Center dropping the "other" option for Census 2021, tribals will be forced to either leave the column or declare their members of one of the six specified religions. They say a separate list will help them maintain their religious identity.

#### **What Is The Sarna Religion?**

- The followers of Sarna faith believe **pray to nature**. The holy grail of the faith is “**Jal, Jungle, Zameen**” and its followers pray to the trees and hills while believing in protecting the forest areas.
- Jharkhand has 32 tribal groups of which eight are from Particularly Vulnerable Tribal Groups. While many follow Hindu religion, some have converted to Christianity. It is believed that 50 lakhs tribal in the entire country put their religion as ‘Sarna’ in the 2011 census, although it was not a code.

### **Need For Recognizing Sarna Code**

- Tribal groups have been demanding for long that followers of the 'Sarna' religion be listed separately as they worship nature and have a distinct tradition and culture.
- **The population of tribals in the state had declined** from the 38.3 per cent in 1931 to 26.02 per cent in 2011. It cited that one of the reasons for this was tribals who go for work in different states not being recorded in the Census and in other states, they are not counted as Tribals.
- Decline in the population of tribals has an **impact on the constitutional provisions and policies framed to benefit the tribal communities**. The basis for identifying an area as Schedule V is dependent on the tribal population.
- Jharkhand has 32 tribal groups of which eight are from Particularly Vulnerable Tribal Groups. Many of the tribals who follow this faith have converted to Christianity—the state has more than 4% Christians most of whom are tribals.
- Followers of the Sarna faith believe the converted tribals are taking the benefits of reservation as a minority as well as the benefits given to Schedule Tribes. They believe that benefits should be given specifically to them and not those who have converted.
- In 2019, there were **demands of denotifying Schedule V areas where the tribal population has come down**. The recognition of Adivasi Sarna code will address this problem.

### **Issues Involved**

- Many of the tribals who follow Sarna faith have later converted to Christianity—the state has more than 4% Christians most of whom are tribals. Some who still follow the Sarna faith believe the **converted tribals are taking the benefits of reservation as a minority as well as the benefits given to Schedule Tribes**. They also believe that benefits should be given specifically to them and not those who have converted.
- Activists, however, raised concerns about the usage of the term ‘Sarna’ and limiting it to tribals. “There are two problems.
  - First, the **term Sarna is not common to all the adherers of a naturalistic religion** based on worship of forests, rivers and mountains.
  - Second, Equating the idea of a naturalistic religion with only the Schedule Tribe population is problematic. It should be open to all.

### **Contempt of Court**

Recently Attorney General gave 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.

### **What Is Contempt Of Court?**

- According to the Contempt of Courts Act, 1971, contempt of court can **either be civil contempt or criminal contempt**.

- **Civil contempt** means wilful disobedience of any judgment, decree, direction, order, writ or other process of a court, or wilful breach of an undertaking given to a court.
- **Criminal contempt**, on the other hand, is attracted by the publication (whether by words, spoken or written, or by signs, or by visible representations, 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 obstruct, the administration of justice in any other manner.

In 2006, the government brought in an amendment, which now provides “truth” as defence provided it is bona fide and in public interest.

### **Does A-G’s Consent Needed To Initiate Contempt Of Court Proceedings?**

- The prior consent of the Attorney General is required for the Supreme Court to initiate criminal contempt action in a case.
  - Subsection 1 of Section 15 (Cognizance 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...”.
  - Recently **Attorney General declined consent to initiate contempt proceedings against Andhra Pradesh Chief Minister** and his principal advisor for making allegations against a judge of the Supreme Court and some other judges of the state high court.
- However, referring to a recent judgement in the **Vijay Kurle case**, the Supreme Court (SC) said that the **source of power of the Supreme Court for proceeding for an action of contempt is under Article 129** (apex court is the court of records) under the Constitution and this power is **not limited in any manner by the Contempt of Courts Act, 1971**.
- SC made this observation while rejecting activist-lawyer Prashant Bhushan's plea that he was proceeded against without the consent of the country's top law officer.

### **Punishment For Contempt Of Court**

- According to the Act, contempt of court may be punished with **simple imprisonment for a term which may extend to six months, or with fine which may extend to two thousand rupees, or with both**, provided that the accused may be discharged or the punishment awarded may be remitted on apology being made to the satisfaction of the court.
- The Supreme Court recently found activist-advocate Prashant Bhushan guilty of contempt of court for two of his tweets, and imposed a token fine of Re 1 on him after Bhushan refused to apologise.

### **15<sup>th</sup> Finance Commission Report**

- The Fifteenth Finance Commission (FFC) submitted to finance minister its report laying out the blueprint for **devolution of Centre’s tax revenue to states for FY22-26**.
- 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.

- The FFC (Chair: Mr N. K. Singh) was required to submit two reports. The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament on February 1, 2020. The final report with recommendations for the 2021-26 period has to be submitted by October 30, 2020.

**Key Recommendations In The First Report (2020-21 Period) Include:**

- **Devolution of taxes to states:** The share of states in the centre's taxes is recommended to be decreased from 42% during the 2015-20 period to 41% for 2020-21. The 1% decrease is to provide for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the central government.
- **Income distance:** Income distance is the distance of the state's income from the state with the highest income. States with lower per capita income would be given a higher share to maintain equity among states.
- **Demographic performance:** The Demographic Performance criterion has been introduced to reward efforts made by states in controlling their population. It will be computed by using the reciprocal of the total fertility ratio of each state, scaled by 1971 population data. States with a lower fertility ratio will be scored higher on this criterion.
- **Forest and ecology:** This criterion has been arrived at by calculating the share of dense forest of each state in the aggregate dense forest of all the states.
- **Tax effort:** This criterion has been used to reward states with higher tax collection efficiency. It has been computed as the ratio of the average per capita own tax revenue and the average per capita state GDP during the three-year period between 2014-15 and 2016-17.
- **Grants-in-aid:** In 2020-21, the following grants will be provided to states: (i) revenue deficit grants, (ii) grants to local bodies, and (iii) disaster management grants. The Commission has also proposed a framework for sector-specific and performance-based grants.

**Recommendations On Fiscal Roadmap**

- **Fiscal deficit and debt levels:** It recommended that both central and state governments should focus on debt consolidation and comply with the fiscal deficit and debt levels as per their respective Fiscal Responsibility and Budget Management (FRBM) Acts.
- **Off-budget borrowings:** The Commission observed that financing capital expenditure through off-budget borrowings detracts from compliance with the FRBM Act. It recommended that both the central and state governments should make full disclosure of extra-budgetary borrowings. The outstanding extra-budgetary liabilities should be clearly identified and eliminated in a time-bound manner.
- **Tax capacity:** The Commission noted that tax revenue is far below the estimated tax capacity of the country. The Commission recommended: (i) broadening the tax base, (ii) streamlining tax rates, (iii) and increasing capacity and expertise of tax administration in all tiers of the government.
- **Statutory framework for public financial management:** It observed that an overarching legal fiscal framework is required which will provide for budgeting, accounting, and audit standards to be followed at all levels of government.
- **Financing of security-related expenditure:** The Commission noted that the Ministry of Defence proposed following measures for this purpose: (i) setting up of a non-lapsable fund, (ii) levy of a cess, (iii) monetisation of surplus land and other assets, (iv) tax-free defence bonds, and (v) utilising proceeds of disinvestment of defence public sector undertakings. Commission intends to constitute an expert group which is expected to examine these proposals or alternative funding mechanisms.

### **National Legal Services Day 2020**

- National Legal Services Day 2020 is being celebrated on November 9 in India.
- It was first observed in the country in the year 1995. The National Legal Services Day is commemorated as an ode to the enactment of the **Indian Legal Services Authorities Act 1987**.
- The **National Legal Services Authority (NALSA)** has been constituted under the Legal Services Authorities Act, 1987 to **provide free Legal Services to the weaker sections of the society** and to organize Lok Adalats for amicable settlement of disputes.
- **The Chief Justice of India is the Patron-in-Chief of NALSA**. The second senior most Judge of Supreme Court of India serves as the Executive Chairman of the Authority.
- National Legal Service Day is celebrated to make people aware of the various provisions under the Legal Services Authorities Act and the right of the litigants.

### **General Consent To CBI**

- Jharkhand has joined the bandwagon of Opposition-ruled states that have withdrawn general consent for an investigation by the Central Bureau of Investigation (CBI).
- Several other states such West Bengal, Rajasthan, Maharashtra and Kerala had withdrawn their general consent earlier.

### **What Is General Consent**

- The CBI is governed by the Delhi Special Police Establishment Act (DPSEA). This law makes the **CBI a special wing of Delhi Police and thus its original jurisdiction is limited to Delhi**.
- Recently, a Calcutta High Court order expanded its jurisdiction to investigate the central government employees in West Bengal without seeking specific consent of the state government.
- For other matters, **CBI needs consent of the state government in whose territorial jurisdiction, the CBI has to conduct an investigation**. This is unlike other central government agencies, for example, the National Investigation Agency (NIA), which by law, enjoys an all-India jurisdiction.

### **What Does The CBI Law Say?**

- Section 6 of the DPSE Act **authorises the central government to direct CBI to probe a case within the jurisdiction of any state on the recommendation of the concerned state government**. The courts can also order a CBI probe, and even monitor the progress of investigation.
- The CBI manual says, "The central government can authorize CBI to investigate such a crime in a state but **only with the consent of the concerned state government**. The Supreme Court and High Courts, however, can order CBI to investigate such a crime anywhere in the country without the consent of the state."

### **Types Of Consents For The CBI**

There are **two types of consent** for a probe by the CBI. These are: **General and Specific**.

- **General Consent:** When a state gives a general consent to the CBI for probing a case, the **agency is not required to seek fresh permission every time** it enters that state in connection with investigation or for every case. A general consent is given to facilitate that seamless investigation in a case of corruption or violence.
- **Specific Consent:** When a general consent is withdrawn, **CBI needs to seek case-wise consent for investigation** from the concerned state government. If specific consent is not granted, the CBI

officials will not have the power of police personnel when they enter that state. This hurdle impedes seamless investigation by the CBI.

### **Types Of Cases The CBI Investigates In A State**

The CBI investigates three types of cases through three specialised wings.

- **The Anti-Corruption Division** that probes cases of corruption against public servants.
- **The Economic Offences Division** probes crimes of financial malfeasance, bank frauds, money laundering, black money operations, and the like. However, the CBI usually transfers cases of money laundering to the Enforcement Directorate (ED).
- **Special Crimes Division** investigate cases of violence such as murder, crimes related to internal security such as espionage, narcotics and banned substances, and cheating. It is this division of the CBI that generally handles cases that get wide media coverage, for example, actor Sushant Singh Rajput's death case.

### **Withdrawal Of General Consent By States**

- There are **at least seven states at present which have withdrawn general consent** to the CBI requiring the agency to seek case-specific permission. They are Mizoram, West Bengal, Rajasthan, Maharashtra, Chhattisgarh, Kerala and Jharkhand.
- However **withdrawal of general consent does not stop all CBI probes**. The CBI continues to probe in old cases until specifically taken back by the state government. Further, it continues to investigate cases that were given to it by a court order.
- **The CBI can challenge the decision in a court** showcasing its progress of investigation in the case. Further when the CBI does not have a general consent, it can approach a local court for a search warrant and conduct investigation. There is a **provision in the CrPC that allows search and investigation in a state by outside agency** but it has to happen through a local court.

#### **Additional Information**

##### **About CBI**

- The CBI came into being during the World War II, when the colonial government felt the need to probe cases of corruption in the War and Supply Department. A law came in 1941. It became the **DSPE Act in 1946**.
- The **Act to set up CBI was not passed by Parliament**. It was **created by an executive order** of the government. In that sense, the **CBI is not a statutory body**.
- The CBI functions under the **Ministry of Personnel, Public Grievances and Pensions** and is **exempted from the purview of the Right to Information (RTI) Act**.

### **Extradition**

The Supreme Court 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.

#### **What is Extradition**

- As defined by Hon'ble Supreme Court of India, 'Extradition is the delivery on the part of one State to another of those whom it is desired to deal with for crimes of which they have been accused or convicted and are justifiable in the Courts of the other State'.

- An Extradition request for an accused **can be initiated in the case of under-investigation, under-trial and convicted criminals**. In cases under investigation, abundant precautions have to be exercised by the law enforcement agency to ensure that it is in possession of prima facie evidence to sustain the allegation before the Courts of Law in the Foreign State.

#### **Legislative Basis for Extradition in India**

- **The Extradition Act 1962** provides India's legislative basis for extradition. To consolidate and amend the law relating to the extradition of fugitive criminals and to provide for matters connected therewith, or incidental thereto, the Extradition Act of 1962 was enacted.
- It consolidated the law relating to the extradition of criminal fugitive from India to foreign states. The Indian Extradition Act, 1962 was substantially modified in 1993 by Act 66 of 1993.

#### **Extradition Treaties**

- Section 2(d) of Extradition Act 1962 defines an 'Extradition Treaty' as a Treaty, Agreement or **Arrangement made by India with a Foreign State, relating to the Extradition of fugitive criminals** and includes any treaty, agreement or arrangement relating to the Extradition of fugitive criminals made before the 15th day of August 1947, which extends to and is **binding on, India**.
- Extradition treaties are **traditionally bilateral in character**. Yet most of them seem to embody at least **five principles**, as endorsed by many judicial pronouncements and state practice in respect of domestic extradition legislation.
  1. The principle of extraditable offences lays down that extradition **applies only with respect to offences clearly stipulated as such in the treaty**;
  2. The principle of dual criminality requires that the offence for which the extradition is sought be an **offence under the national laws of the extradition requesting country as well as of the requested country**;
  3. The requested country must be satisfied that there is a **prima facie case made out against the offender/accused**;
  4. The extradited person must be **proceeded against only against the offence (rule of speciality) for which his extradition was requested**; and
  5. He **must be accorded a fair trial** (this is part of international human rights law now). Judiciary and other legal authorities are likely to apply these principles equally to situations where no extradition treaty exists.
- **Ministry of External Affairs, Government of India is the Central/Nodal Authority** that administers the Extradition Act and it processes incoming and outgoing Extradition Requests.

#### **Provisional Arrest Request**

- In case of urgency, India may request the provisional arrest of the fugitive, pending presentation of an extradition request. A provisional arrest request may be appropriate when it is believed that the fugitive may flee the jurisdiction.
- India **does not need a treaty to make a provisional arrest request** to a foreign country. India can make a provisional arrest request to any country. **India's treaty partners have obligations to consider India's requests**. In the absence of a treaty, it is a matter for the foreign country in accordance with its domestic laws to determine whether to arrest the person according to India's provisional arrest request.

## **President's Powers To Pardon — US vs India**

US President Donald Trump exercised his powers under the Constitution to pardon Michael Flynn, his former National Security Advisor, who had twice pleaded guilty to lying to the FBI.

### **Extent Of The US President's Power To Pardon**

- The President of the US has the **constitutional right to pardon or commute sentences related to federal crimes**. The US Supreme Court has held that this power is “**granted without limit**” and cannot be restricted by Congress.
- Clemency is a broad executive power, and is **discretionary** — meaning the **President is not answerable for his pardons, and does not have to provide a reason for issuing one**. But there are a few limitations.
  - For instance, Article II, Section 2 of the US Constitution says 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.
- In four years, Trump has granted pardons to 29 people and 16 commutations. In contrast, President Barack Obama had, during his eight-year tenure, issued 212 pardons and 1,715 commutations. The **highest number of clemency grants by a US President (3,796) came during Franklin D Roosevelt's 12-year tenure**, which coincided with World War II.

### **How Indian President Pardons**

- Unlike the US President, whose powers to grant pardons are almost unfettered, the President of India has to act on the advice of the Cabinet.
- **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”. Under **Article 161**, the Governor too has pardoning powers, but these do not extend to death sentences.
- The President **cannot exercise his power of pardon independent of the government**. 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.
- In several cases, the 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.
- Although the President is bound by the Cabinet's advice, **Article 74(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.

### **Roshni Act**

The Jammu & Kashmir administration has recently **released a series of lists of alleged beneficiaries of the Roshni Act of 2001**, now scrapped, which gave ownership rights to the unauthorized occupants of state land against payment of a premium.

### What Was The Roshni Act?

- Formally the Jammu and Kashmir State Land (Vesting of Ownership to the Occupants) Act, 2001, it was passed by the then National Conference government led by Farooq Abdullah to **give ownership to people in possession of state land, with a cut-off of 1990, and against a payment as determined by the government.**
- Since the aim was to generate resources for hydroelectric power projects, it was called Roshni (Light) Act.

### J&K Roshni Act: Why Has It Been Controversial?

- The Jammu and Kashmir government had originally planned to raise Rs 25,000 crore under the Roshni scheme. But it **ended up fetching only Rs 76 crore** from regularisation of 71,000 acres of land in Jammu and over 4,000 acres of land in Kashmir.
- In its 2014 report, the **Comptroller and Auditor General of India (CAG) termed the scheme a Rs-25,000-crore scam.** It flagged irregularities and said **arbitrary reduction of prices by a standing committee was done to benefit politicians and influential people.**
- Shortly after the government had approved the Act, the then State Vigilance Organisation filed an FIR against some **people who didn't satisfy the criteria but managed to vest ownership of land under the scheme.**
- A prominent case came to be known as the **Gulmarg land scam**, in which several top bureaucrats are accused of illegally transferring land of the Gulmarg Development Authority to private parties.

### Scrapping Of The Act

- In October 2018, then **Governor repealed the Roshni Act prospectively.** The order stated that “All pending proceedings under the Act shall stand cancelled immediately and any action taken under the provisions of the repealed Act shall not be invalid”.
- In September 2019, the governor ordered a probe by the state Anti-Corruption Bureau into all dealings under the Roshni Scheme. Following this, another petition was filed in the High Court seeking transfer of the probe to the CBI.
- In October this year, the **High Court declared the Roshni Act “illegal, unconstitutional and unsustainable” and held allotments under the Act as void ab initio.** It ordered a CBI probe into transfer of ownership, sought action against bureaucrats involved, and asked the government to make public the names of prominent people allotted land.

### Concerns

- There are many aspects which have been ignored while scrapping the act. **Everyone has not committed fraud and many are bonafide** beneficiaries who were using these lands for residential purposes for decades. Some of them even date back to 1940s.
- To some, these lands were leased for residential use and the then government provided them with the option of converting the leased land to freehold hand through the Roshni Act. These aspects have not been communicated to the court by the government properly. There is a sense among the people that the **government was not concerned in looking at the humanitarian aspect of this issue.**
- Some right-wings groups in Jammu have alleged the Roshni Act was meant to **change the demography of the Hindu-majority Jammu district.** Thirty thousand cases of land transfer were reported in the state government order, out of which over 25,000 cases were from Jammu and only 4,500 from Kashmir.

**Supreme Court's Observations On Article 32**

- A Supreme Court Bench headed by Chief Justice of India 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 a journalist, who was arrested with three others while on their way to Hathras, Uttar Pradesh, to report on an alleged gangrape and murder.

**What Is 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. **Only if any of these fundamental rights is violated can a person can approach the Supreme Court directly under Article 32.**

**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, Mandamus ,Quo warranto ,Prohibition and Certiorari.
- 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.**

**Supreme Court's Observations On Article 32**

- **Recent cases:**
  - In the case of the journalist, the court asked **why the petitioners could not go to the High Court.** It has sought responses from the Centre and the UP government, and will hear the case later this week.
  - In another case invoking Article 32, filed by a Nagpur-based man arrested for alleged defamatory content against Maharashtra Chief Minister Uddhav Thackeray and others, the same Bench **directed him to approach the High Court first.**
- 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.**
- 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.

### **Bru Resettlement**

Parts of North Tripura have witnessed violent protests recently over the proposed resettlement of Bru tribals.

#### **Background**

- **In 1997, 37,000 people of the Bru (or Reang) tribe fled to Tripura from Mizoram**, on account of ethnic clashes there. Since then, 5,000 have returned to Mizoram while 32,000 remain in camps in Tripura.
- In January this year, an agreement was signed by the Centre, the two state governments and Bru representatives to **allow the remaining 32,000 to permanently settle in the state**.
- This led to protests from Bengali and Mizo groups in Tripura. They claim that settling thousands of migrants permanently in North Tripura district would **lead to demographic imbalance, exert pressure on local resources and potentially lead to law and order problems**.

#### **Who Are The Brus?**

- They are a **community indigenous to the Northeast**, living mostly in Tripura, Mizoram, and Assam.
- **In Tripura, they are recognised as a Particularly Vulnerable Tribal Group**. In Mizoram, they were targeted by ethnic organisations who demanded that the Brus be excluded from electoral rolls.

#### **Bru Agreement- Highlights**

- All Bru currently living in temporary relief camps in Tripura will be settled in the state, if they want to stay on. The Bru who returned to Mizoram in the eight phases of repatriation since 2009, cannot, however, come back to Tripura.
- To ascertain the numbers of those who will be settled, a **fresh survey and physical verification of Bru families** living in relief camps will be carried out. The Centre will implement a **special development project for the resettled Bru**; this will be in addition to the **Rs 600 crore fund** announced for the process, including benefits for the migrants.
- **Each resettled family will get 0.03 acre (1.5 ganda) 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. They will also receive a monthly allowance of Rs 5,000, and free rations for two years from the date of resettlement.
- **All cash assistance will be through Direct Benefit Transfer (DBT)**, and the state government will expedite the opening of bank accounts and the issuance of Aadhaar, permanent residence certificates, ST certificates, and voter identity cards to the beneficiaries.

### **The Constitution Day**

Constitution Day also known as 'Samvidhan Divas', is celebrated in our country on 26th November every year to commemorate the adoption of the Constitution of India.

#### **Why Is November 26 Observed As Constitution Day?**

- On 26th November 1949, the Constituent Assembly of India adopted the Constitution of India, which came into effect from 26th January 1950.

- In May 2015, the Union Cabinet announced that November 26 will be observed as Constitution Day to **promote “constitutional values amongst citizens”**. This was the year that marked the **125th birth anniversary of BR Ambedkar**, the Chairman of the Drafting Committee of the Constitution.
- On November 19, 2015, the government formally notified November 26 as Constitution Day. **Before this, the day was observed as National Law Day. Ambedkar was also the first Law Minister of India.**
- The Drafting Committee chaired by Ambedkar was one among the over 17 committees of the Constituent Assembly. The last session of the Constituent Assembly ended on November 26, 1949, when the Constitution was adopted. The **two-month period between the adoption and enforcement of the Constitution was used for a thorough reading and translation from English to Hindi.**

**Global Students’ Choice**

The international movement of students to study in various countries of the world has been released by different sources.

**Key Findings**

- For the fifth consecutive year, the United States hosted more than one million international students during the 2019-20 academic year.
- However, a 2020 snapshot survey has revealed that total international students, which includes fresh and currently enrolled candidates, in the United States and studying online outside the United States decreased by 16% in 2020.
- Moreover, fresh international student enrolment, whether for in-person classes or those studying online from their home countries, has decreased by 43% for the Fall semester in 2020 (beginning in September).
- According to the US Department of Commerce, international students contributed \$44 billion to the US economy in 2019. Indian students contributed \$7.7 billion to the US economy.

**Top 5 countries from where international students came to the USA**

Country	2018-19	2019-20	Change (%)
China	369,548	372,532	0.8%
<b>India</b>	<b>202,014</b>	<b>193,124</b>	<b>-4.4%</b>
South Korea	52,250	49,809	-4.7%
Saudi Arabia	37,080	30,957	<b>-16.5%</b>
Canada	26,122	25,992	-0.5%
World Total	1,095,299	1,075,496	-1.8%

**Country Wise Data Of Student Inflow In US**

- Unfriendly visa and immigration policies have reduced the number of students going to the US. Of the 25 top countries, 19 recorded decline in growth rate in 2019-20 when compared to the previous year.
- Saudi Arabia saw the largest percentage decrease (-17%), primarily due to changes in its government’s scholarship program.
- China, followed by India and South Korea, sent the largest number of students to the USA.
- Among the top 20 places of origin, the largest percentage increases were students from Bangladesh, Brazil and Nigeria.

**Popular Courses In US**

- Engineering continues to be the leading field of study in US accounting for one in five (20.5%) international students.

- Math and computer science were the second largest field of study in the US.

### **Top Host Countries**

- The Covid-19 pandemic has changed the mobility patterns of international students on a global basis.
- However, the United States continues to be the largest host country for students wanting to pursue a foreign degree, followed by the UK and China.
- According to the UNESCO 2019 data, with students exploring more options, Germany has reached the fourth spot by replacing France.
- Data released from the German Academic Exchange Service, shows that China and India are the most popular source countries for international students coming to Germany.
- Moreover, student numbers from Germany's third largest source country, Syria, have increased by 275% in the last three years.

### **Manual Scavenging**

- The government has announced various measures, with an aim to eliminate manual scavenging across the country by August 2021.
- Manual scavenging is a term used for the practice of physically removing human excreta from dry toilets with bare hands, brooms and metal scrappers.

### **Measures Announced**

- The government will amend the Manual Scavenging Act to make mechanised cleaning of sewers and septic tanks compulsory.
- The government has also made an appeal to the states and city administrations to substitute the term "manhole" with "machine hole", in official usage, to bring a shift in an approach towards this issue.
- Along with this, a dedicated national helpline number has been set up to register complaints and provide real-time solutions on desludging or sewer overflow.

### **Safaimitra Suraksha Challenge**

- The Ministry of Housing and Urban Affairs has also launched a "Safaimitra Suraksha Challenge" to ensure that no person needs to enter a sewer or septic tank.
- The Challenge will focus on creating citizen awareness on this critical issue along with infrastructure creation for mechanized cleaning and capacity building of workforce.
- The actual on-ground assessment of participating cities will be conducted in May 2021 by an independent agency and results will be declared on 15 August 2021.
- Cities will be awarded in three sub-categories – with population of more than 10 lakhs, 3-10 lakhs and upto 3 lakhs, with a total prize money of Rs 52 crores to be given to winning cities across all categories.
- At the launch of the challenge, representatives from 243 cities across the country, have taken a pledge to mechanize all sewer and septic tank cleaning operations by 30th April 2021.

### **Statistics on Manual Scavenging**

- The Socio-Economic Caste Census of 2011 counted over 1.82 lakh families that had at least one member employed in manual scavenging.
- The 2011 census recorded 740,078 households that have their waste and faecal matter cleared out by manual scavengers.

- Rights groups Safai Karamchari Andolan puts the number of manual scavengers across India at over 7 lakh.
- Official records show that manual scavenging has led to 376 deaths over the past five years, including 110 in 2019 alone — a 61 percent increase from 2018.
- Unofficial records put the number of deaths of manual scavengers inside sewers, septic tanks and sewage pits at over 1500 since 2013.

#### **Future Outlook**

- In the past too, there have been proposals of 100% mechanisation to end manual scavenging but it did not change the situation on the ground.
- The measures announced will only be helpful, if they are implemented effectively along with the existing laws.

#### **Initiatives for Transgenders**

- The Ministry of Social Justice and Empowerment launched a national portal for transgender persons to apply for certificates and identity cards.
- Under the Transgender Persons (Protection of Rights) Act, 2019, transpersons can apply for an ID card based on their self-perceived identity.
- The portal will allow transgender persons to upload an affidavit declaring their gender, which then becomes the basis for their identity certificates to be issued by the respective district magistrates.
- The most important benefit is that it helps the transgender person to get the I-Card without any physical interface and without having to visit any office.
- Through the portal, the applicants can monitor the status of their application that ensures transparency in the process.
- The issuing authorities are also under strict timelines to process the applications and issue certificates and identity cards without any necessary delays.
- The portal will also enable the applicants to register their grievances and help build a database of the community.

#### **Shelter Home for Transgender Persons**

- The Ministry also inaugurated 'Garima Greh: A Shelter Home for Transgender Persons' in Vadodara.
- The scheme of 'Shelter Home for Transgender Persons' will provide shelter to transgender persons, with basic amenities like shelter, food, medical care and recreational facilities.
- Besides, it will provide support for the capacity-building/skill development of persons in the community, which will enable them to lead a life of dignity and respect.
- The ministry has also identified 10 cities to set up 13 shelter homes and extend the facilities to transgender persons.
- This is a pilot project and on its successful completion, similar schemes will be extended to other parts of the country.

#### **Pradhan Mantri Bhartiya Janaushadhi Pariyojana**

- The Ministry of Chemicals & Fertilizers recently held a comprehensive review of Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP).

- The scheme of providing affordable medicines to citizens was revamped as Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) scheme in 2015-16, with the aim of bringing down healthcare budget of every citizen of India by providing quality generic medicines at affordable prices.
- Since then, the Jan Aushadhi stores selling affordable generic medicines has grown from mere 99 stores in 2014-15 to around 6600 stores at present.
- Sales figure has also seen a jump from Rs 7.29 crore in 2014-15 to Rs 433 crore in 2019-20.

### **Measures For Improvement**

- There is a need to work on increasing awareness of people regarding efficacy and quality of Jan Aushadhi medicines.
- Further, it is important to increase coverage with focus on remote and rural areas, and for ensuring availability of medicines at each Jan Aushadhi shop. He asked BPPI to prepare and submit a detailed action plan to achieve this goal.
- The Ministry has asked the Bureau of Pharma PSUs of India (BPPI) to prepare and submit a detailed action plan to achieve the above mentioned goals.
- It also asked BPPI to strengthen supply chains by adopting innovative measures.

### **BPPI**

- Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP. It was established in 2008 under the Department of Pharmaceuticals

### **Rice Fortification**

- In a bid to combat chronic anaemia and undernutrition, the government has decided to distribute fortified rice through the Integrated Child Development Services and Mid-Day Meal schemes across the country from next year.
- The rice will be fortified with three micronutrients -- vitamin B12, iron and folic acid.
- A centrally-sponsored pilot scheme, to distribute fortified rice through the Public Distribution System in 15 districts was approved in February 2019, for a three-year period from 2019-20 onwards.
- However, only five States — Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Chhattisgarh — have started the distribution of fortified rice in their identified pilot districts.
- The Food Corporation of India has now been asked to come up with a comprehensive plan to scale up the annual supply of fortified rice from the current 15,000 tonnes to at least 1.3 lakh tonnes, from 2021-2022, starting with the 112 aspirational districts.
- Fortifying rice involves grinding broken rice into powder, mixing it with nutrients, and then shaping it into rice-like kernels. These fortified kernels are then mixed with normal rice in a 1:100 ratio, and distributed for consumption.

### **Organ Donation Day**

- Recently, on 27 November India celebrated the 11th 'National Organ Donation Day' in the country.
- However, in the past few months due to the Covid-19 pandemic, organ donations have reduced drastically across the world, including India.
- A study, published in Lancet, noted that countries with high infection rates have seen organ donations fall by more than 50 per cent.

### **Status Of Organ Donation In India**

- The National Organ & Tissue Transplant Organisation (NOTTO), is mandated under the Transplantation of Human Organs (Amendment) Act 2011 to carry out activities for promotion of organ donation from deceased persons.
- NOTTO also has the responsibility to put systems in place for organ donation and transplantation and to train the necessary manpower and personnel.
- Organ donations have always been abysmally low in India. According to estimates, only 0.65 donations per million population take place in the country, compared to 35 in Spain and 26 in the US.
- According to the National Health Portal, about 5 lakh people die every year due to non-availability of organs.
- According to a 2019 report, only 3 per cent of the population across 12 cities in the country have registered to donate organs.
- However, with 12,666 organs transplanted in 2019, India ranked third in the world as per data available from WHO Global Observatory on Donation and Transplantation (GODT).

### **Academic Freedom Index**

- The Academic Freedom Index (AFI) was recently published by Global Public Policy Institute. The AFI compares levels of academic freedom worldwide and helps in understanding its decrease across the world.
- The report quantifies the freedom of scholars to discuss politically and culturally controversial topics, without fearing for their life, studies or profession.
- The AFI used eight components to evaluate the scores- Freedom to research and teach, Freedom of academic exchange and dissemination, Institutional autonomy, Campus integrity, Freedom of academic and cultural expression, Constitutional protection of academic freedom, International legal commitment to academic freedom under the International Covenant on Economic, Social and Cultural Rights, and Existence of universities

### **Highlights of AFI**

- Uruguay and Portugal are at the top of AFI with scores of 0.971 each, followed closely by Latvia (0.964) and Germany (0.960).
- India has scored considerably low with a score of 0.352, which is closely followed by Saudi Arabia (0.278) and Libya (0.238).
- In the last five years, the AFI of India has dipped by 0.1 points. Countries like Malaysia (0.582), Pakistan (0.554), Brazil (0.466), Somalia (0.436) and Ukraine (0.422) have scored better than India.

### **Reasons for Low AFI in India**

- India has not fared well in components like institutional autonomy, campus integrity, freedom of academic and cultural expression and constitutional protection of academic freedom.
- Most universities in the country are subjected to unsolicited interference from governments in both academic and non-academic issues.
- A majority of appointments, especially to top-ranking posts like that of vice-chancellors, pro vice-chancellors and registrars, have been highly politicised.
- Such political appointments not only choke academic and creative freedom, but also lead to corrupt practices, including those in licensing and accreditation.

- This promotes unhealthy favouritism and nepotism in staff appointments and student admissions, which reflects a rent-seeking culture within the academic community.

### **Measures in NEP to improve Academic Freedom**

- The National Education Policy 2020 claims that it is based on principles of creativity and critical thinking and envisions an education system that is free from political or external interference.
- For instance, the policy states that faculty will be given the freedom to design their own curricular and pedagogical approaches within the approved framework.
- It suggests constituting a National Research Foundation (NRF), a merit-based and peer-reviewed research funding, which will be governed, independently of the government.
- It also talks about giving autonomy to higher education institutions by handing over their administration to a board comprising academicians. This may help de-bureaucratise the education system and reduce political interference to an extent.
- However, the future depends on whether these promises will be put into practice or remain just a rhetoric.

### **Poshan Abhiyaan's Progress Report**

- NITI Aayog recently launched National Nutrition Mission's or Poshan Abhiyaan's third progress report.
- The review report was drafted in March and does not factor worsening poverty and hunger levels over the past seven months.

### **Poshan Abhiyaan**

- Launched in 2018, Poshan Abhiyaan, or National Nutrition Mission, is the government's flagship program to improve nutritional outcomes for children, pregnant women and lactating mothers, with specific targets to be achieved by 2022.
- More than a third of children under five suffer from stunting and wasting and 40% of children between one and four are anaemic.
- Over 50% of pregnant and non-pregnant women were found to be anaemic, according to the National Family Health Survey-4 released in 2016.
- In addition, new findings from the Comprehensive National Nutrition Survey (CNNS 2016-18) have again highlighted the role of micronutrient malnutrition - anaemia and other micronutrient deficiencies.
- NNM aims to reduce stunting and wasting by 2% per year among children and anaemia by 3% per year among children, adolescent girls and pregnant women and lactating mothers.

### **Report Highlights**

- On stunting, the review says that India's targets are conservative as compared to the global target defined by the World Health Assembly (WHA), which is a prevalence rate of 5% of stunting as opposed to India's goal of reducing stunting levels to 13.3% by 2022.
- The target of reducing prevalence levels of anaemia among pregnant women from 50.3% in 2016 to 34.4% in 2022 and among adolescent girls from 52.9% in 2016 to 39.66%, is also considered to be conservative as compared to the WHA's target of halving prevalence levels.
- Moreover, experts warn that deepening poverty and hunger may delay achieving the goals defined under the Nutrition Mission.

## **Recommendations**

### **For stunting**

- The report calls for a need to lay as much emphasis on complementary feeding as it does on breastfeeding, which can help avert 60% of the total stunting cases in India.
- Further, improved water, sanitation, hand washing with soap and hygienic disposal of children's stools, could help avert a quarter of the stunting cases.

### **For Wasting**

- It suggests inclusion of interventions that go beyond the treatment of severe acute malnutrition (SAM) and also address moderate wasting. These interventions have the potential to achieve larger declines in wasting than by tackling SAM alone.
- Overall, it is urgent that a full strategy for prevention and integrated management of wasting be released nationally.

### **For anaemia and micronutrient deficiencies**

- Scale-up and strengthen some of the existing interventions in the health system to address anaemia, including micronutrient supplements, deworming, prevention and treatment of malaria.
- Invest in improving dietary quality – through a primary focus on dietary diversity through the food system – to achieve multiple nutrition goals.
- It further notes that the government must implement interventions beyond the health sector and must include efforts to improve socio-economic conditions, else India will achieve modest improvements in anaemia among women of reproductive age.

### **Way Ahead**

- While POSHAN Abhiyaan continues to play an important role in India's endeavour against malnutrition, there is a need to accelerate actions on multiple fronts.
- There is a need to quickly graduate to a POSHAN-plus strategy which apart from continued strengthening of pillars of the Abhiyaan, also requires renewed focus on other social determinants in addition to addressing the governance challenges of National Health Mission & ICDS delivery mechanisms.

## **MBBS Regulations**

- In a significant step towards affordable medical education, 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".
- The new regulation shall be applicable to all new medical colleges proposing to be established, and to the established medical colleges proposing to increase their annual MBBS intake from the academic year 2021-22.

### **Key Changes**

- The new regulation has deleted the quantum of land required for setting up a medical college and its affiliated teaching hospitals.
- Recognizing that a well-functioning hospital is at the core of medical training, the new regulation now mandates the availability of a fully functional 300 bed multi-speciality hospital for at least 2 years at

the time of application for establishing a new medical college (the earlier regulations did not specify the period of functionality).

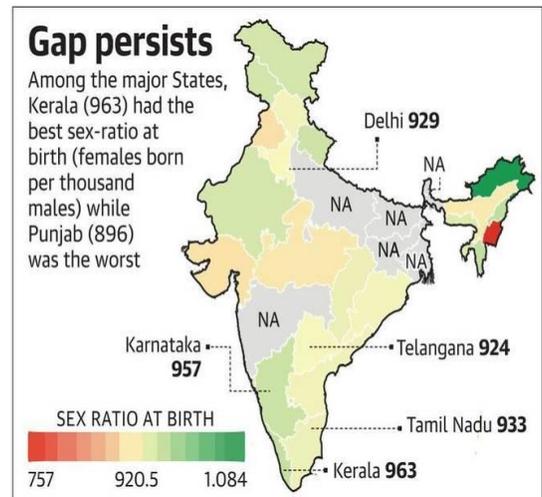
- A well-equipped Skills Laboratory for training students is essential now. It also defines a Medical Education Unit for training medical teachers in educational pedagogy.
- Over and above the minimum prescribed faculty, provision for visiting faculty has been made to enhance quality of training.
- Further, student counselling services has been mandated, recognizing the increasing stress observed amongst medical students and residents in recent times.
- The regulation has also outlined desirable and aspirational goals beyond the minimum requirements stated in the standards so as to stimulate medical institutions to strive for excellence.

### **Civil Registration System (CRS) Report**

- Recently, the 2018 report on vital statistics of India based on the Civil Registration System was published. The report provides an overview of the working of the CRS in the country.
- CRS in India is the unified process of continuous, permanent, compulsory and universal recording of the vital events (births, deaths, still births). The Registration of Births and Deaths Act, 1969 provides for the compulsory registration of births and deaths.
- For the country, the data generated through CRS is essential for socio-economic planning and to evaluate the effectiveness of various social sector programs.
- For the individual, the records in CRS provides her/his legal identity and access to the rights of a citizen including social benefits provided by the government.

### **Report Findings**

- As per the report, 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.
- 13 States/UTs have achieved the cent per cent level of registration of births and 13 out of 20 major States have crossed 90% level of registration of births.
- Highest Sex Ratio at Birth (SRB) based on registered events has been reported by Arunachal Pradesh (1084), followed by Nagaland (965) Mizoram (964) and Kerala (963).
- Lowest SRB has been reported by Manipur (757), Lakshadweep (839) and Daman & Diu (877) followed by Punjab (896).
- Sex ratio at birth is number of females born per thousand males.



### **Step Up For TB 2020 Report**

- The Step Up for TB 2020 report was recently launched by Médecins Sans Frontières (MSF) and Stop TB Partnership.
- It covers 37 countries with high Tuberculosis burden, home to 77% of the global estimated cases.

**Key Findings**

- TB remains the world's top infectious disease killer, with more than 10 million people falling ill and 1.4 million people dying due to this disease in 2019.
- The report has raised concerns over efforts to control the disease. New medical innovations to tackle TB are reaching very few people, and countries' national policies are not in sync with WHO's guidelines to tackle TB.
- For instance, of the 10 million cases, around 7 million people were diagnosed and notified to the WHO, and around 3 million people are likely not diagnosed.
- Only 22% of countries surveyed allow TB treatment to be started and followed up at a primary healthcare facility, instead of travelling to a hospital, for instance, and for medicines to be taken at home.
- Additionally, 39% do not use a modified all-oral shorter treatment regimen and 28% of countries surveyed still are using injectable medicines (instead of oral medicines) when treating children with drug resistant - TB (DR-TB).

**Findings from India**

- India, has around a quarter of the world's TB cases and fairs poorly. As per the report, India is still following a very conservative approach regarding the new medicines for drug resistant TB, putting lives of patients including children in danger.
- As of March 2020, India had 119,960 MDR-TB patients, who were eligible for oral drugs for the treatment of MDR-TB. However, only 10,845 received their dosage.

**Way Ahead**

- The report calls for governments to accelerate their testing, diagnosis, and prevention of TB, and for donors to provide financial support for increased access to new treatments.
- National treatment programmes must prioritise use of all-oral treatment regimens for people with drug-resistant TB that no longer include older, toxic drugs that have to be injected and cause serious side effects.

**Water Risk Filter Analysis**

- The WorldWide Fund for Nature recently released its 'Water Risk Filter' (WRF) analysis. The Water Risk Filter is an online tool that evaluates the severity of water risk in different places due to various factors.
- The analysis gave cities a risk score out of five in 2030 and 2050, where anything above three is a 'high risk' and anything above 4 is a 'very high risk'.
- The city's risk levels were scored by evaluating several factors, which included droughts, floods, fragmentation of river ecosystems, freshwater availability, climate change impact, the presence of regulatory laws governing water use, conflict etc.
- The tool enables companies and investors to explore, assess, value and respond to water risks worldwide.

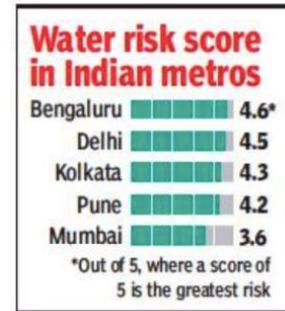
**Global Findings**

- Hundreds of millions of people in cities across the globe could face significantly increased water risks, unless urgent action is taken to reduce and adapt to climate change.

- According to the scenarios in WRF, 100 cities that are expected to suffer the greatest rise in water risk by 2050, are cities where at least 350 million people live. Moreover, these cities are important economies nationally and globally.
- Globally, populations in areas of high-water risk could rise from 17% in 2020 to 51% by 2050.
- China accounts for almost half of the cities at high water risk. Beijing, Jakarta, Johannesburg, Istanbul, Hong Kong, Mecca and Rio de Janeiro are also in the list.

### Findings From India

- India has emerged as a dominant place in both current and future lists of cities with the highest overall water risk.
- 30 cities in India have been identified as cities that will face increasing water risks in the next few decades. All 30 Indian cities received a score of at least three or above for both 2030 and 2050.
- The highest increase in risk among Indian cities has been projected for Jaipur (11%) and Indore (10%).



### Way Ahead

- Nature-based solutions including restoring degraded watersheds, reconnecting rivers to their floodplains, and restoring or creating urban wetlands are important.
- Urban planning and wetland conservation should be integrated to ensure zero loss of freshwater systems in the urban areas.
- Multi-stakeholder engagement and ownership, involving local communities could be the key in creating and conserving sustainable water infrastructure.
- The Smart Cities initiative in India could offer an integrated urban water management framework for building future- ready, water smart and climate resilient cities.

### WWF

- The World Wide Fund for Nature (WWF) is an international non-governmental organization founded in 1961. It was earlier known as the World Wildlife Fund.
- It aims to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
- It works to help local communities conserve the natural resources they depend upon; transform markets and policies toward sustainability; and protect and restore species and their habitats.

### Other Service Provider Guidelines

- In order to give a boost to the IT Industry, particularly Business Process Outsourcing (BPO) and IT Enabled Services (ITES), the government has simplified the Other Service Provider (OSP) guidelines of the Department of Telecom.
- The new guidelines are aimed at removing unnecessary bureaucratic restrictions in order to allow the industry to focus on innovative new products and solutions.

### Other Service Providers (OSPs)

- OSPs are entities providing application services, IT enabled services or any kind of outsourcing services using telecom resources.

- The term refers to Business Process Outsourcing (BPOs), Knowledge Process Outsourcing (KPOs), IT Enabled Services (ITES) players, call centres, amongst others.

### **Business Process Outsourcing (BPO)**

- Business process outsourcing, or BPO, is a business practice in which one organization hires another company to perform a function for it.
- Over the decades, the business process outsourcing industry has expanded to offer an extremely wide range of functions and services to organizations.
- The functions that can be outsourced today are conventional back-office tasks, such as accounting, data processing and payroll processing, to digital services, such as social media marketing, and to customer support roles, such as call center operations.

### **Information Technology Enabled Service (ITeS)**

- ITeS, also called web enabled services or remote services, covers the entire range of operations that use information technology for improving efficiency of an organisation.
- These services include operations such as call centre, data entry and processing, medical transcription, medical billing, coding etc.

### **New Guidelines**

- The new rules have removed the registration requirement for Other Service Providers.
- Moreover, the BPO industry engaged in data related work has been taken out of the ambit of OSP regulations.
- In addition, requirements such as deposit of bank guarantees, frequent reporting obligations, publication of network diagram, penal provisions etc. have also been removed.
- Similarly, several other requirements, which prevented companies from adopting 'Work from Home' and 'Work from Anywhere' policies have also been removed.
- Going forward, the concept of Work From Home will be encouraged and work from home has been extended to provide Work-From-Anywhere in India.

### **Impact**

- The new guidelines will improve ease of doing business and will make India one of the most competitive IT jurisdictions in the world.
- Access to remote working will significantly expand access to talent, increase job creation, and push the Indian IT industry to the next level of growth and innovation, and turn India into a global technology hub.
- With the relaxations in WFH regulations, companies will be able to recruit talent from small towns and remote parts of the country, which will also help in the development of small towns and cities in tier III and IV locations.

### **World Fisheries Day**

- The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, recently celebrated the 'World Fisheries Day' on 21st November 2020.
- The event aims to draw attention to overfishing, habitat destruction and other serious threats to the sustainability of marine and inland resources.

- The celebrations serve to focus on changing the way the world manages global fisheries to ensure sustainable stocks and healthy ecosystems.
- Fisheries sector in India provides direct employment to about 28 million fishers and fish farmers besides meeting the food and nutritional security and foreign exchange earnings.
- India is the second major producer of fish through aquaculture in the world. India contributes about 7.7% to the global fish production and country ranks 4th in global exports of fish products.
- The fisheries sector has contributed about 1.24% to the national Gross Value Added (GVA) and about 7.28% of the agricultural GVA in 2018-19.

### **Draft Model Act on Land Titling**

- The Niti Aayog has released a draft model Act and rules for States for regulation on conclusive land titling. **Land Titling** is the procedure followed for providing Title over any type of immovable property.
- In a conclusive titling system, the government provides guaranteed titles for the land, and compensation in case of any ownership disputes.
- The aim of the draft model Act is to reduce a large number of land related litigations and also improve land acquisitions for the infrastructure projects.

### **Provisions of the Act**

- The model Act and rules will provide state governments the power for establishment, administration and management of a system of title registration of immovable properties.
- The State Governments shall constitute the '**[Name of the State] Land Authority**' for the purpose of this Act.
- The Land Authority will be a body corporate and will have the power to acquire, hold and dispose a property. A body corporate broadly means a corporate entity which has a legal existence.

### **Composition of the Land Authority**

- The Land Authority shall consist of a Chairperson, the Commissioner Land Titling, and three other members, to be appointed by the government.
- The chairperson will be:
  - A serving or retired officer of the Indian Administrative Service not below the rank of Chief Secretary or Special Chief Secretary or Principal Secretary to the Government or
  - A non-government expert from the fields such as law, land administration, registration, survey & settlement, and management of land records.
- The chairperson shall hold office for not more than 3 three years and shall be eligible for reappointment only once.

### **Land Dispute Resolution Officer and Land Titling Appellate Tribunals**

- The Land Authority can appoint one or more **Land Dispute Resolution Officer**, to deal with objections filed under the Act.
- The Land Dispute Resolution Officer will be retired or serving officer not below the rank of Joint Collector of a District.
- Further, the Land Authority will establish one or more **Land Titling Appellate Tribunals** to hear the appeals filed under the Act.

- The Land Titling Appellate Tribunal will be presided by a serving or retired judicial officer in the rank of District Judge.
- It will also consist an administrative member not below the rank of an Additional Collector.
- While hearing an objection or dispute under the Act, The Land Dispute Resolution Officer and the Land Titling Appellate Tribunal will have the powers of a civil court under the Code of Civil Procedure, 1908.
- However, The Land Dispute Resolution Officer and the Land Titling Appellate Tribunal will be guided by the principles of natural justice and will not be bound by the procedure laid down by the Code of Civil Procedure, 1908.

### **Dispute Resolution**

- Any person who has an objection to an entry in the Record of Titles can file an objection before the Title Registration Officer within three years from the date of such notification.
- Following this, the Title Registration Officer shall make an entry in Register of Titles and in the Register of Disputes and refer the case to the land dispute resolution officer.
- If the party has an objection with the order of the land dispute resolution officer, it can file an appeal before the Land Titling Appellate Tribunal within 30 days of passing of such an order.
- Further, a special bench of High court shall be designated to deal with appeals against the orders passed by the Land Titling Appellate Tribunal. The window for an appeal to the High Court is 30 days.

### **Gujarat Maritime Cluster (GMC)**

- The Gujarat Maritime Cluster (GMC) will soon be set up at GIFT City in Gandhinagar.
- 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.
- A maritime cluster is a collection of firms, institutions, and businesses in the maritime sector that are geographically located close to each other.
- The GMC cluster will initially consist of Gujarat-based shipping lines, freight forwarders, shipping agents, bunker suppliers, and ship brokers 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, Delhi and Gujarat. Thereafter it would target to attract global players in the maritime sphere.

### **Benefits**

- Gujarat has a lot of ports and handles 40 per cent of the country's cargo, but it does not target the entire value-chain.
- As the country does not have the right ecosystem, a lot of Indian companies have moved to foreign locations. Large corporates like the Aditya Birla Group and Tata Group tap clusters in Dubai and Singapore for their maritime needs.
- This project will try to bring back businesses that have migrated over the years to foreign locations.

### **Alternate Dispute Resolution (ADR) Centre**

- As the sector has an international character there are a lot of arbitration and mediation cases revolving around bunker disputes, ship sales, shipbuilding and repairs, commodities, etc.

- Thus, 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. Such a centre does not currently exist in India.
- This centre will function like the Emirates Maritime Arbitration Centre (EMAC) at the Dubai Maritime Cluster, China Maritime Arbitration Commission in the Greater Bay Area in China, and the Singapore Centre for Maritime Arbitration in the Singapore Maritime Cluster, among others.
- 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.

### **Viability Gap Funding Scheme**

- The Cabinet Committee on Economic Affairs has approved continuation and revamping of the Viability Gap Funding (VGF) scheme, till 2024-25, with a total outlay of ₹8,100 crore.
- The revamped scheme will provide financial support to PPP projects in the infrastructure sector.
- Of the total amount of ₹8,100 crore, ₹6,000 crore has been earmarked for PPP projects in the economic infrastructure segment and remaining ₹2,100 crore for social infrastructure projects. The earlier VGF scheme was limited to projects concerning economic infrastructure.
- Viability Gap Funding means a grant to support projects that are economically justified but not financially viable.
- The Department of Economic Affairs, introduced "the Scheme for Financial Support to PPPs in Infrastructure" (Viability Gap Funding Scheme) in 2006 with a view to support infrastructure projects undertaken through PPP mode.

### **Components Of The Scheme**

The new scheme will have two components.

#### **I. Sub scheme-1**

- It would cater to social sectors such as waste water treatment, water supply, solid waste management, health and education sectors, which often face bankability issues on account of poor revenue streams.
- The projects eligible under sub-scheme-1 should have at least 100 per cent operational cost recovery.
- The central government will provide a maximum of 30% of the total project cost (TPC) of the project as VGF. State government, sponsoring central ministry or statutory entity may provide an additional support up to 30% of TPC.

#### **II. Sub scheme-2**

- It will support demonstration or 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, central and state governments together will provide up to 80 per cent of capital expenditure and up to 50 per cent of operation and maintenance (O&M) costs for the first five years.
- The Centre 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 the first five years of commercial operations.

### **Benefits**

- The scheme would be beneficial to public at large as it would help in creation of the infrastructure for the country.

- It will attract more PPP projects and facilitate the private investment in the social sectors.
- Creation of new hospitals, schools will create many opportunities to boost employment generation.

### **Dobra Chanti Bridge**

- The Chief minister of Uttarakhand recently inaugurated the country's longest single-lane motorable suspension bridge, Dobra Chanti in Tehri Garhwal district.
- The 725-metre-long bridge will connect Pratap Nagar town with Tehri Garhwal district headquarters.
- Built over Tehri Lake at a cost of Rs 2.96 crore, the bridge would ensure that around three lakh population of Tehri would not have to traverse a distance of 100 km to reach the district headquarters. This will cut the travel time from 5 to 1.5 hours.
- The bridge will be a gateway to development in the region. It will be a major tourist attraction and will be a driving force for employment of local people

### **National Monsoon Mission**

- A study carried out by the National Council of Applied Economic Research (NCAER) on behalf of the Ministry of Earth Sciences (MoES) was recently released.
- The study was conducted to evaluate economic benefits of the government's investment in the National Monsoon Mission (NMM) and MoES' High Performance Computing (HPC) facilities.
- A total of 173 districts across 16 states were considered for the study to appropriately represent agro-climatic zones, rain-fed areas, and coverage of major crops.
- The study included a survey of over 6,000 respondents, including farmers, livestock owners and fishing households.

### **Findings Of The Study**

- The estimated number of agricultural households belonging to Below Poverty Line category in the rain-fed areas, is 10.7 million. The agricultural households include both farmers and livestock owning households.
- About 98 per cent of the farmer respondents, made modifications in various practices such as changing breed or variety, fertiliser or pesticide application, irrigation schedule and early or delayed harvesting based on weather advisories.
- Around 94 per cent farmers surveyed said this helped them either avoid losses, or increase income.
- Further, eighty-two per cent fishermen surveyed reported using Ocean State Forecast (OSF) advisories before they went for fishing in the sea, and 95 per cent of them reported avoiding empty trips by following OSF advisories.
- The study estimates this helped them save operational costs by avoiding trips into the sea. Moreover, potential fishing zone (PFZ) advisories resulted in successful trips generating additional catch (of fishes).
- Due to the improvement in weather forecasts after the initiation of NMM, economic investment of 1 rupee in NMM and HPC facilities leads to a 50-fold increase in economic benefits through gains to BPL farming and fishing families.

**About National Monsoon Mission (NMM)**

- The National Monsoon Mission (NMM) was initiated by the Ministry of Earth Sciences (MoES) in 2012, with the broad objective to improve the monsoon forecasting skills in the country.
- The execution and coordination of this mission is undertaken by Indian Institute of Tropical Meteorology (IITM), Pune.
- **Three other MoES institutes** that have actively partnered in this mission are National Centre for Medium Range Weather Forecasting (NCMRWF), India Meteorological Department (IMD), and Indian National Centre for Ocean Information Services (INCOIS).
- The modelling framework developed by IITM and NCMRWF have been made operational and is being used by IMD for giving short, medium, extended and seasonal forecasts.
- The increased resolution of the models is made possible through investments made by MoES for improvement of the High Performance Computing (HPC) capability at its institutes.

**Benefits of NMM**

- Generating weather forecasts at block level in India.
- High resolution seasonal/extended forecasts of monsoon.
- Prediction of cyclones with more accuracy and lead time.
- Ocean state forecasts including marine water quality forecasts at very high resolution.
- Tsunami forecasts with greater lead time.
- Air quality forecasts for various cities.

**Avadhanam**

- The International Satavadhanam program was recently launched virtually by the Vice President. The Vice President observed that 'avadhanam' as a literary feat has greatly contributed to the Telugu language's glorious tradition.
- Avadhanam originated as a Sanskrit literary process and is revived by poets in Telugu and Kannada in modern times.
- It involves solving tricky literary posers, improvising poems and tests a person's capability of performing such multiple tasks simultaneously. All the tasks are memory intensive and demand an in-depth knowledge of literature.
- Avadhani refers to the individual who performs the Avadhanam. Prachaka (questioner) is one of the many individuals asking questions.

**Hoysala Laxmi Devi Temple**

- An idol of goddess Mahakali was recently found broken at the historic Hoysala era Lakshmi temple at Doddagaddavalli of Belur. The temple is among the monuments proposed for Unesco world heritage site status.
- Situated on the banks of a large pond, it was built in 1113 CE, under the Hoysala king Vishnuvardhana, due to grants by the merchant Kalhana Rautar.
- The main temple in the centre of the compound has four garbagrihas (sanctum sanctorums)—making it a chatushkuta temple. This is the only chatushkuta temple in Hoysala history.

- The four garbagrihas in the main temple have Maha Lakshmi (East), Maha Kali (South), Vishnu (North, missing now) and Shiva (West).
- Hoysala architects built temples with different numbers of garbagrihas—one (ekakuta, eg. Belur), two (dvikuta, eg. Halebidu), three (trikuta, eg. Somanathapura) and even four and five (panchakuta, eg. Govindanahalli).

### **Hoysala Empire**

- The Hoysala Empire was a Kannadiga power that ruled between the 10th and 14th centuries, mostly in an area of what is now Karnataka. The capital of the Hoysalas was initially located at Belur but was later moved to Halebidu.
- By the 13th century, they governed most of Karnataka, minor parts of Tamil Nadu and parts of western Andhra Pradesh and Telangana in the Deccan Plateau.
- The Hoysala era was an important period in the development of art, architecture, and religion in South India. The empire is remembered today primarily for Hoysala architecture. Over a hundred surviving temples are scattered across Karnataka.
- Some of the popular temples are, the Chennakeshava Temple, Belur, the Hoysaleswara Temple, Halebidu, and the Chennakesava Temple, Somanathapura.
- The Hoysala rulers also patronised the fine arts, encouraging literature to flourish in Kannada and Sanskrit

### **Prehistoric Gender Stereotypes**

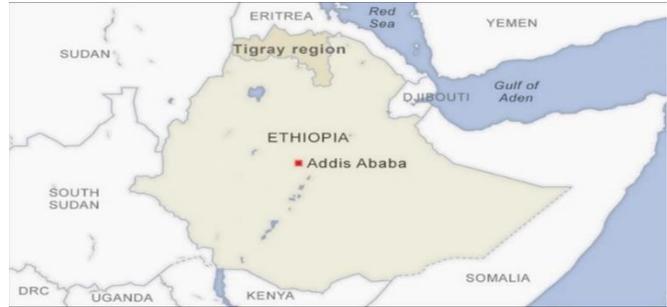
- An archaeological excavation in the Andes Mountains of South America found an early burial that contained a hunting toolkit with projectile points and animal-processing tools.
- Based on an analysis of the bones and dental proteins, the study found that the hunter was a female.
- From further examination of records of ancient burials throughout North and South America, the researchers found that somewhere between 30% to 50% of hunters in these populations were female.
- According to the researchers, this level of participation is in contrast to recent hunter-gatherers, and even farming and capitalist societies, where hunting is a male activity with low levels of female participation.
- But the findings show that sexual division of labour was fundamentally different — likely more equitable — in the deep hunter-gatherer past.
- The researchers believe the findings, are particularly timely in light of contemporary conversations surrounding gendered labour practices and inequality.
- In future studies, the scientists hope to understand how the consequences of sexual division of labour changed in different times and places among the hunter-gatherer populations of the continent.

### **Armed Clashes In Ethiopia's Tigray**

- Violence has escalated in Ethiopia and it is on the **brink of a civil war**. A domestic conflict is going on in the country's northern Tigray region.
- The long-simmering tensions between Prime Minister Abiy Ahmed's government in Addis Ababa and leaders from the country's northern Tigray region spilled into the open.

### Why Has Conflict Started In Tigray?

- Conflict started in September 2020, when Tigray held local elections in insubordination of the Ethiopian federal government.
- These elections were considered illegal by the federal government, further leading to conflict with Tigray authorities.
- Although the genesis of conflict can be traced to when Abiy Ahmed came to power in 2018. The authority of the Tigray officials has considerably reduced since Abiy took office, making their waning influence a point of contention.



### Federal System of Ethiopia

- The structure of Ethiopia's federal system allows the ten regions of the country significant autonomy.
- These regions also have their own parliaments, their own security forces, and the right to a referendum for independent rule.

### Possible Impact of This Crisis on the Horn of Africa

- If the conflict between the Ethiopian federal government and Tigray authorities exacerbates, it will spill over to neighbouring countries in the Horn of Africa.
- Eritrea may be hardest hit due to its proximity to Tigray.
- The US and China have **several strategic military bases in that region**, the closest being Djibouti. If this crisis continued for long, it may cause foreign powers to get militarily involved in the region and the conflict.

### Peace Deal Between Armenia and Azerbaijan

Armenia and Azerbaijan have **signed a new peace deal brokered by Russia**. Both the countries have been involved in a military conflict over the disputed region of Nagorno-Karabakh in the South Caucasus.

### Key Highlights of the Deal

- Both sides will now **maintain positions in the areas that they currently hold**. This will result into a **significant gain for Azerbaijan** as it has reclaimed over 15-20% of its lost territory during the recent conflict.
- All military operations will remain suspended. **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.

### Why Russia was keenly involved?

- Russia's role in the conflict has been somewhat opaque since it supplies arms to both countries and is in a military alliance with Armenia called the Collective Security Treaty Organisation.
- Russia has always taken a balanced position on the matter as it has traditionally good relations with both countries.

[For detailed discussion on the conflict, please refer the topic “**The Conflict Between Armenia and Azerbaijan**” from October 2020 edition of CA magazine]

### **China Accused for Breaching Hong Kong Treaty**

- United Kingdom has accused China of **breaking its international treaty obligations**, after **four pro-democracy lawmakers were ousted** from Hong Kong's legislature on security grounds.
- UK has termed this incident as a clear breach of the **legally binding Sino-British Joint Declaration**.

#### **Key Highlights**

- A measure passed by China's highest legislative body allowed the **disqualification of “unpatriotic” opposition members in Hong Kong’s parliament**.
- This prompted the entire pro-democracy caucus to announce their resignation.
- As per UK, new rules for disqualification provide a further tool to harass and stifle all voices critical of China's policies. As a result, UK is also **considering to impose sanctions** against China.
- It is the **third time since 1997** and the handover of Hong Kong to China that the UK has asserted a breach of the joint declaration.
- The first breach according to the British was in 2006. The second was in June 2020 when Beijing introduced the Hong Kong national security legislation.

#### **What Can UK Do?**

- In practice the legal routes open to the UK to challenge Beijing are **limited to rhetorical denunciation and sanctions against individual Chinese leaders** or Hong Kong legislators.
- The Sino-British joint declaration itself **does not have a mechanism endorsed by both parties to ensure its compliance**.
- Even though the **agreement is registered with the United Nations**, it did not include mechanisms of supervision by the UN.
- Therefore, only the signatories of the declaration have the right to raise any potential terms violations.
- The main two courts to which the UK could appeal would either be the international court of justice or to a binding third-party permanent court of arbitration, a body that operates outside the UN ambit.

#### **Sino-British Joint Declaration**

- It was an agreement signed by Britain and China in 1984 to settle the future of Hong Kong.
- It gave control of Hong Kong, which was occupied by Britain after the Opium War in 1840, to China from July 1, 1997.
- The agreement states that China's basic policies regarding Hong Kong which “will remain unchanged for 50 years”, including the promise that the city would retain a high degree of autonomy.

[For detailed analysis on Hong Kong Protest, please refer the topic “**New Security Law for Hong Kong**” from May 2020 edition of CA magazine]

### **China Holds Virtual Conference with South Asian Partners**

- China hosted a high-level virtual meeting with **Pakistan, Bangladesh, Nepal, and Sri Lanka**.
- This meeting was held to **build up political consensus** in containing the covid-19 pandemic and boosting economic development.

- The “**five-parties**” meeting -- a term used by Beijing in its statement on the meeting -- followed a similar exercise in July 2020 that had seen the participation of Pakistan, Nepal, and Afghanistan.

### **Significance**

- It highlights the fact that China is making inroads into India's periphery. Beijing's involvement in funding and construction of infrastructure in countries across the region is well documented.
- The covid-19 pandemic, however, has introduced a **new dimension to the strategic jostling between India and China**. Both the countries are aggressively involved with helping countries in the region control the pandemic and post-pandemic economic recovery measures.
- The meeting also comes amid military tensions along the India-China border with troops of the two countries engaged in an eye ball-to-eye ball confrontation in Ladakh.

### **India's Role Since the Outbreak of Pandemic:**

- India convened a **meeting of SAARC** leaders to draw up a strategy to stem the spread of covid-19. India had set up a **covid-19 fund** that countries in the region could contribute to and avail of to combat covid-19.
- New Delhi has promised to deliver vaccines to neighbouring countries as soon as they are developed and become available for use.
- In November 2020, the **Serum Institute of India signed a pact with Bangladesh** for the supply of 30 million doses of a potential coronavirus vaccine being developed by British drugmaker AstraZeneca.
- On the economic front and development partnership, New Delhi has been trying to keep up with the delivery of projects committed to as quickly as possible.
- Recently, the Indian embassy in Nepal announced the **inauguration of a new school building in Dhanusha District**, built with the Indian government's financial assistance.
- In September 2020, India handed over **financial assistance to the tune of \$ 250 million to the Maldives**.

### **UAE Widens Its Golden Visa Programme**

- The United Arab Emirates (UAE) has approved granting “**golden**” **visas** allowing 10-year residency 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.

### **Background:**

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

### **Key Highlights:**

- All holders of doctorate degrees, medical doctors, and also computer, electronics, programming, electrical, and biotechnology engineers are 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 university students with a Grade Point Average (GPA) of 3.8 or higher.

### **Golden Card Permanent Residency Scheme**

- This scheme was launched by UAE to woo wealthy individuals and exceptional talents from all over the world.
- The “Golden Card” visa includes categories:
  - General investors who will be granted a 10 year permanent residency visas .
  - Real Estate Investors, who can get a visa for 5 year visa.
  - Entrepreneurs and Talented Professionals like doctors, researchers and innovators can get 10 years visa.
  - ‘Outstanding students’ will also be permitted 5 years permanent residency visas.

### **Puerto Rico Votes In Favor Of Statehood**

- The United States territory of Puerto Rico has **voted in favour of statehood**. Thus, through referendum, it demanded to be treated with the current 50 states of the country.
- On November 3, a majority of Puerto Ricans voted in favour of a non-binding referendum for full statehood. Currently it enjoys the **commonwealth status**.
- For granting statehood, both chambers of Congress (House and Senate) would have to support the initiative, which would then require the approval of the US President.

### **History of Puerto Rico**

- The Spanish-speaking island is **located in the Caribbean Sea**, about 1600 km southeast of the US state of Florida.
- Since its discovery by Christopher Columbus in 1493, Puerto Rico was a part of the Spanish Empire for over 4 centuries until 1898, when it was annexed by the USA.
- In 1917, Puerto Ricans were granted US citizenship. However, the island itself was never made a full state and continues to remain a “US territory”.
- Puerto Rico gets only one member in the House of Representatives, the lower chamber of the US congress – but who has no voting power. Puerto Ricans also can’t vote in US presidential elections.

### **Bhutan Establish full-fledged Diplomatic Ties with Germany**

- Bhutan and Germany have established full-fledged diplomatic relations during a ceremony held in the Bhutanese mission in New Delhi. The two sides have had **consular relations since July 2000**.
- Bhutan now has **diplomatic relations with 53 countries** and the **European Union**. It is interesting to point out that **Thimphu does not have any formal diplomatic relation with any P5 countries** - -US, Russia, UK, France or China.
- Bhutan’s capital Thimphu hosts only **3 foreign missions** – those of India, Bangladesh and Kuwait.

### **Background**

- The modern kingdom ruled by the **House of Wangchuck** was created in 1907 through the unification of previously independent principalities.
- For many years, the country closed itself off to the outside world. As part of the **domestic reforms introduced by King Jigme Dorji Wangchuck**, who reigned from 1952 to 1972, Bhutan then gradually established international relations with a small number of countries.

- It joined the **United Nations in September 1971**.

### **Germany's New Boardroom Quota for Women**

- Germany's coalition government will introduce a **mandatory quota for the number of women working as senior management** in the country's listed companies.
- A working group of Germany's ruling coalition parties headed by Chancellor Angela Merkel have agreed to the proposal. Final decision regarding this will be made by the cabinet.

### **Key Highlights**

- The legislation has been named as "**Second Management Positions Act**". It proposes that in case executive boards of listed companies have more than three members, **one must be a woman**.
- 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.

### **Need For Such Move**

- Since 2015, Germany has had a **voluntary quota of 30% 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 quota.

### **Tibetan Parliament-In-Exile**

- The election for the **17th Tibetan Parliament-in-Exile** will be held in 2021. This was announced by the Chief Election Commission of the Central Tibetan Administration (CTA).
- It will be held to elect the **fifth directly elected Sikyong or president** of the CTA and the **17th Tibetan Parliament-in-Exile (TPIE)**.
- TPIE has its **headquarters in Dharamsala, in the Kangra district of Himachal Pradesh**.

### **Voting System**

- The voting will be held in **two rounds**. In the preliminary round, there will be no official candidates, i.e. a voter can choose any person of his choice, which is expected to be one of several candidates who have started campaigning among the electorate.
- Unless a person secures 60% of the vote, the two top contenders of the first round will become the official candidates for the second round.
- Tibetans aged above 18 as per one's identity document called **Tibetan Green Book** is eligible to vote following registration.
- According to the Green Book of the Tibetan government-in-exile, over 1 lakh Tibetans are settled across India, while the remaining are settled in US, Australia, Brazil, Canada, Costa Rica, France, Mexico, Mongolia, Germany, UK, Switzerland and various other countries.

### **Tibetan Parliament-in-Exile**

The Speaker and a Deputy Speaker head the Tibetan Parliament-in-exile. The 16<sup>th</sup> TPIE had 45 members–

- ✓ 10 representatives from each of the traditional provinces of Tibetan – U-Tsang, Dhotoe and Dhomey;
- ✓ two from each of the four schools of Tibetan Buddhism and the pre-Buddhist Bon religion;

- ✓ two representing each of the Tibetan Communities in North America and Europe; and one from Australasia and Asia (excluding India, Nepal and Bhutan).

### **Tibetan Constitution**

- The **Central Tibetan Administration** exists and functions on the basis of the Constitution of the Tibetan government called the 'Charter of the Tibetans in Exile'.
- In 1991, The Constitution Redrafting Committee instituted by the Dalai Lama prepared the **Charter for Tibetans in Exile**. It was approved by Dalai Lama in June 1991.

### **Is TPiE Recognized?**

- TPiE is **not recognized officially by any country, including India**. But a number of countries including the USA, EU deal directly with the Sikyong (Political leader) and other Tibetan leaders through various forums.
- The incumbent Sikyong, Lobsang Sangay, was among the guests who attended the oath taking ceremony of the PM Modi in May 2014, probably a first.

### **Provincial Status For Gilgit Baltistan**

- Pakistan has officially announced its decision to convert the disputed territory of Gilgit Baltistan (GB) into a full-fledged province. When this happens, Gilgit-Baltistan will become the **fifth province of Pakistan**.
- It was announced on **November 1**, celebrated every year in Gilgit-Baltistan as "**Independence Day**".

### **What Does The Decision Mean?**

- The decision to elevate Gilgit Baltistan to a fully-fledged province will grant the region Pakistan's constitutional rights, comprising representation in the upper and lower houses of the (Pakistani) parliament.

### **What Is The Current State Of The Region?**

- Although the region's fate is linked with Kashmir, its administrative system is different from that of PoK. PoK has its constitution that establishes its powers.
- However, Gilgit-Baltistan is **mostly governed by an executive fiat**. Until 2009, the region was called the Northern Territory.
- It got its current name only with the **Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009**, which replaced the Northern Territory Legislative Council from the Legislative Assembly.
- The **last elections were held in July 2015**, and the term of the Legislative Assembly ended in July 2020. New elections could not be held due to the epidemic.

### **Importance of Gilgit Baltistan (G-B)**

- G-B is the northernmost territory administered by Pakistan, providing the country's only territorial frontier, and thus a land route, with China, where it meets the Xinxiang Autonomous Region.
- The **China Pakistan Economic Corridor** has made the region vital for both the countries.
- To G-B's west is Afghanistan, to its south is Pakistan-occupied Kashmir, and to the east J&K.
- Many analysts link the plan to provide provincial status with CPEC and Chinese interests while others say the push might have come from India's reassertion of its claims after the August 5, 2019 reorganisation of J&K.

**Impact Of This Step:**

- **Strengthening the Legal Hold of Pakistan** - Pakistan is trying to ensure that, should India and Pakistan (and China) come to the point of an open war in Kashmir, this part of Kashmir **remains constitutionally safe, and out of reach of any meddling United Nations resolutions** that will come into play as hostilities break out.
- **Legalises the China-Pakistan Economic Corridor (CPEC)**
- **Easing Chinese access** - The legalising of Pakistan's stranglehold over Gilgit-Baltistan means that roadblocks to Chinese investors in setting up industry or buying up land will be removed. The Chinese-financed **Moqpondass SEZ** will now go ahead.

**India's Stand:**

- India has clearly conveyed to Pakistan that the entire union territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, **are an integral part of the country** by virtue of its **fully legal and irrevocable accession**.
- Hence, Government of Pakistan or its judiciary has **no locus standi** on territories illegally and forcibly occupied by it.

[Also refer the topic "***Elections in Gilgit-Baltistan***" from May 2020 edition of CA magazine]

**Chinese Rail Line Close to Arunachal Pradesh**

- China is set to begin the construction of the **Sichuan-Tibet Railway line** close to the **border in Arunachal Pradesh**.
- The railway line would come up between Linzi in Tibet and Ya'an in southwest Sichuan. It would begin from Sichuan's capital city Chengdu and shorten the time taken to travel to Lhasa from 48 hours to 13 hours.
- The proximity of the Sichuan-Tibet Railway to Arunachal gains significance as Beijing has time and again **claimed sovereignty** over the entire Indian state, calling it "**South Tibet**".
- This would be China's **second major railway project on the Tibetan plateau**. It has already built and operationalised the Qinghai-Tibet line on the plateau, which is one of the world's most geologically active areas.

**China To Build Major Dam On Brahmaputra**

- China is planning to build a **major hydropower project on Brahmaputra river in Tibet**
- A proposal for this has been clearly put forward in the 14th Five-Year Plan to be implemented from next year.
- China's decision to build a new dam has raised concerns in India. Brahmaputra river is crucial for India too as its basin is a critical water source for Arunachal Pradesh, Assam, Meghalaya, Sikkim, Nagaland and West Bengal. The Brahmaputra valley support the lives of several indigenous communities.
- The Brahmaputra flows for over 3,000km through Tibet, India and Bangladesh.

**12th BRICS Summit**

- 12<sup>th</sup> BRICS Summit was held in a virtual format. It was hosted by the current Chair Russia.
- Theme - "**Global Stability, Shared Security and Innovative Growth**"

- India **will be taking over the Chairmanship of the BRICS** in 2021. It which would be the third BRICS Presidency for India since its inception (after 2012 and 2016).

**Key Highlights:**

- The 12<sup>th</sup> BRICS summit was held in the backdrop of the 75th Anniversary of UN and in the midst of the COVID-19 pandemic.
- Participating leaders discussed intra-BRICS cooperation and key issues in the global context, including the reform of the multilateral system, measures to mitigate the impact of the ongoing COVID-19 pandemic, cooperation in Counter Terrorism, trade, health, energy and people to people exchanges.
- Indian PM called for **cooperation in addressing the Covid-19 pandemic** and in this regard noted the supply of essential medicines to over 150 countries by India.
- He said that during India's Chairship of the BRICS in 2021, it would focus on consolidation of **intra-BRICS cooperation**, including in the fields of **traditional medicine and digital health, people-to-people ties and cultural exchanges**.
- The Summit adopted the "**Moscow Declaration**".
- In order to strengthen fight against terrorism, the Summit finalized the **BRICS Counter-Terrorism Strategy**.

**BRICS Counter-Terrorism Strategy**

- 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**.
- For this, BRICS countries will
  - strengthen their unity in countering international terrorism and its financing
  - consider undertaking concerted measures against those involved in organizing, instigating, facilitating, participating in, financing, encouraging or tolerating terrorist activities
  - counter the global threat of terrorism on the basis of the purposes and principles of the UN Charter, relevant UN Security Council resolutions and international counter-terrorism conventions and protocols
- The **BRICS High Representatives for Security** shall be entrusted with leading the review of the implementation of this Strategy, and the **BRICS Counter-Terrorism Working Group (CTWG)** shall be entrusted with its implementation.

**BRICS**

BRICS brings together five major emerging economies comprising **42 percent of the world's population**, having **23 percent of the global GDP** and around **17 percent of the share and world trade**.

**Different Areas of Cooperation:**

- BRICS strategic partnership can be seen in the **three pillars of policy and security, economy and finance, culture and people-to-people exchanges**.
- BRICS cooperation has **two mechanism** which includes **consultations on issues** of mutual interest through meeting of leaders and ministers as well as **cooperation through meeting of senior officials** in a number of areas including trade, finance, health, education, science and technology, agriculture, communications IT etc.

- The **Sherpa mechanism** is also an important mechanism at senior officials level to take stock and give direction.
- It also includes people-to-people exchanges including participation of youth and many other similar exercises. Several people-to-people initiatives of BRICS include *BRICS Film Festival, BRICS Young Scientist Forum, intensified engagement with BRICS youth* etc.

### **Role of BRICS: An Analysis**

- **New Development Bank and the Contingency Reserve Arrangement** are actually the flagship outcome of BRICS.
- BRICS which started off primarily with an economic pillar, has now diversified considerably to include security, health, science and technology, culture and civil society.
- Under the chairmanship of Brazil, more than a **hundred meetings relating to BRICS were held in 2019**. Terrorism was one of the priority areas of 2019 summit. In 2020 summit, the BRICS nations finalized **BRICS Counter-Terrorism Strategy**.
- It has gone into socio-economic issues which is more evident during the current Pandemic.
- The 2020 summit underscored the issue of cooperation amongst the BRICS partners on the **production of the COVID-19 vaccines**. They also emphasised the need for cooperation in the **recovery of the post-COVID-19 world**.
- Role of BRICS has also been very important in the context of **being a pressure group** on the question of **reform of multilateralism** and also on the question of **reform of global governance institutions**.
- BRICS sees itself as a **bridge between the developing countries and the developed world** and takes up issues which are very relevant to the developing countries.

### **Other Areas of Cooperation (can be used as an example to highlight Role/Significance/Relevancy of BRICS)**

- **BRICS Payments Task Force (BPTF)** to promote cooperation among national payment system (work under progress)
- Establishment of the **BRICS Rapid Information Security Channel (BRISC)** to allow the BRICS countries' central banks to exchange information on cyber threats and share experience in countering cyber-attacks in the financial sphere.
- BRICS Local Currency Bond Fund (work under progress)
- In the context of accelerated development of the e-commerce sector and increased volume of online-transactions worldwide, BRICS is planning to enhance cooperation through the **BRICS E-commerce Working Group**.
- The cooperation in the **field of energy** can be seen through the adoption of **Roadmap of BRICS Energy cooperation** and the launch of practical cooperation within **BRICS Energy Research Cooperation Platform (ERCP)** including the preparation of joint reports.

### **Challenges Faced by BRICS**

- Lack of a binding ideology,
- Bilateral differences,
- Diversity in terms of socio-cultural and political systems, and
- China's overwhelming presence, which reduces the space for other countries in the grouping

- Economic slowdown faced by member countries as mentioned in the previous section

### **17th ASEAN-India Summit**

17<sup>th</sup> India-ASEAN summit was held online. It was co-chaired by Indian PM Modi and PM of Vietnam Nguyen Xuan Phuc (**Vietnam is the current Chair of ASEAN**). The Leaders of all ten ASEAN Member States participated in the Summit.

#### **Key Highlights**

- ASEAN-India Strategic Partnership stands on a strong foundation of shared geographical, historical and civilisational ties. India's Act East Policy, underlining ASEAN centrality, reflects the importance, India attaches to engagement with ASEAN.
- During the summit, India highlighted that a cohesive, responsive and prosperous **ASEAN is central to India's Indo-Pacific Vision** and contributes to **Security And Growth for All in the Region (SAGAR)**.
- India underscored the importance of strengthening convergence between **India's Indo-Pacific Oceans Initiative** and the **ASEAN Outlook on Indo-Pacific**, to ensure a free, open, inclusive and rules-based Indo-Pacific region.
- India announced a contribution of **US\$ 1 million to the COVID-19 ASEAN Response Fund**.
- India also underscored the importance of greater physical and digital connectivity between ASEAN and India and **reiterated India's offer of US\$ 1 billion Line of Credit to support ASEAN connectivity**.
- On trade and investment, India underlined the importance of **diversification and resilience of supply chains** for post-COVID economic recovery.
- The participating leaders also welcomed the **adoption of the new ASEAN-India Plan of Action for 2021-2025**.

#### **ASEAN-India Engagement**

- ASEAN and India became **Summit-level partners in 2002**, and **Strategic partners in 2012**. The partnership is covered by several Dialogue Mechanisms cutting across various sectors like defense, cyber security, counter terrorism, commerce, telecommunications, agriculture, energy, environmental issues, tourism, etc.
- There is **ample closeness** between India's "**Indo Pacific Oceans Initiative**" and **ASEAN's "Outlook on Indo Pacific"**. India firmly believe that a "Cohesive and Responsive ASEAN" is essential for "Security and Growth for All in the Region".
- **India-ASEAN trade and investment relations** have been growing steadily, with ASEAN being India's **fourth largest trading partner**. Its trade with ASEAN stands at **\$81.33 billion**, which is approximately 10.6% of India's overall trade. India's exports to ASEAN stand at 11.28% of its total export.
- There has been significant **recovery of FDI inflows** from India in 2018, amounting to 1.7 billion USD, which placed **India as ASEAN's sixth largest source of FDI** among ASEAN Dialogue Partners.
- ASEAN and India have set a **trade target of 200 billion USD by 2022**.
- On trade and investment, the review of **ASEAN-India Trade in Goods Agreement (AITIGA)** has been long pending. India has called for an early review of the Agreement.

### **SCO Summit 2020**

- 20th Summit of SCO Council of Heads of State was held in virtual format. It was hosted by Russia (current chair of SCO). Tajikistan will assume the chairmanship of SCO next year.
- This was the **first SCO Summit held in Virtual Format** and third meeting that India participated after becoming a **full member in 2017**.
- India extended its full support in observing the **20th anniversary of SCO in 2021** as the "**SCO Year of Culture**".
- During the summit, India spoke of its own initiatives to hold the **first SCO exhibition on Shared Buddhist Heritage** to be organized by National Museum of India, **SCO Food Festival in India** next year and the **translation of Ten regional language literary works into Russian and Chinese**.
- India has also proposed to set up a **Special Working Group on Innovation and Startups** and a **Sub Group on Traditional Medicine within SCO**.

[Also refer the topics "**SCO Meet**" and "**7th Justice Ministers' Meeting of SCO**" from September 2020 and October 2020 edition of CA magazine respectively]

### **India-Italy Virtual Summit**

- A Virtual Bilateral Summit between Prime Minister Modi and Prime Minister of Italy Giuseppe Conte was held.
- The Summit provided an opportunity to the two leaders to comprehensively review the broad framework of the bilateral relationship.

### **Key Highlights**

- The leaders discussed a wide range of issues including political, economic, scientific & technological, space and defence cooperation.
- On regional and international issues, both sides agreed to coordinate closely at multilateral fora especially G-20. **Italy will assume the Presidency of G-20 in December 2021 followed by India in 2022**.
- **15 MoUs/Agreements** in various sectors such as energy, fisheries, ship building, design etc. were signed during the Summit.
- The two leaders acknowledged the untapped potential of bilateral industrial partnership and projects and encouraged respective "**national champions**" and **SMEs to explore** new avenues of cooperation.
- The two leaders deeply appreciated holding of the **High-Level Economic Dialogue at the level of CEOs** of Indian and Italian companies in October 2020.
- They agreed to promote **innovative financial schemes** capable of supporting bilateral investments. In this context, signing of MoU between Cassa Depositi e Prestiti (CDP) and National Infrastructure Investment Fund (NIIF) was welcomed by both leaders.
- The Italian PM **thanked India** for extending support to Italy during the **pandemic by supplying medicines and personal protection equipment (PPE)**.
- **In the field of space**, both leaders welcomed the creation of the first joint ASI (Italian Space Agency)-ISRO **working group in heliophysics** field involving experts and scientists from both countries.

- The two Prime Ministers noted with satisfaction the successful completion of **15th India-EU Summit** held in July 2020 and expressed their shared commitment towards implementation of the "**India-EU Strategic Partnership: Roadmap to 2025**".
- The two leaders decided to **organize culture festivals as India in Italy in year 2021 in Italy and Italy in India in year 2022 in India**.
- In order to expand the range of bilateral engagement and to build a strategic partnership the two Prime Ministers adopted the "**Action Plan for an enhanced Partnership**" between the two Countries.
- This action plan is based on **four pillars** - political dialogue; economic engagement; partnership in the field of science and technology; cultural cooperation and people-to-people exchanges.
- The Action Plan will represent the framework for the development of bilateral relations through the setting up of new instruments of cooperation and the streamlining of the existing ones.

#### **India-Italy Relationship in Brief**

- India-Italy relations are marked by regular high-level exchanges which saw **incoming visits by Italian Prime Ministers in 2017 and 2018**.
- **Bilateral trade stood at Euros 9.52 billion in 2019**. Italy is India's **5th largest trading partner** in the EU, after Germany, Belgium, UK and France.
- Around 600 large Italian companies are active in India, covering varied sectors such as fashion and garments, textiles and textile machinery, automotive components, infrastructure, chemicals, energy confectionery, insurance etc.
- Several Indian companies are also active in Italy. Several Government-to-Government and Private Sector agreements / MoUs have been finalised.

[Also refer the topic "**Italian Marines Case**" from Mains section of July 2020 edition of CA magazine]

#### **India-Luxembourg Virtual Summit**

A Virtual Summit was held between PM Modi and PM of Luxembourg Xavier Bettel. This was the **first stand-alone Summit meeting between India and Luxembourg in the past two decades**.

#### **Key Highlights**

- The leaders discussed the entire spectrum of bilateral relationship, including strengthening of India-Luxembourg cooperation in the post-COVID world. They also exchanged views on international and global issues of mutual interest.
- Agreements Signed at the Summit:
  - MoU between India International Exchange (India INX) and Luxembourg Stock Exchange.
  - MoU between State Bank of India (SBI) and Luxembourg Stock Exchange.
  - MoU between Invest India and Luxinnovation
- The first two MoUs provide for cooperation in financial services, industry maintenance of orderly markets in securities, ESG (environmental, social and governance) and green finance in the local market.
- Last MoU provides for support and development of mutual business cooperation, including promotion and facilitation of inbound FDI, coming from or proposed by Indian and Luxembourgish investors.

### **India-Luxembourg Relationship (Brief Discussion)**

- India–Luxembourg diplomatic relations were established in 1948 and Luxembourg opened its embassy in New Delhi in 2002.
- Luxembourg Stock exchange and funds based out of Luxembourg are the third largest investors in India. **Foreign Portfolio investments** from Luxembourg total more than Rs. 3 lakh crore. It is largest after the US and Mauritius.
- Luxembourg’s importance stems from it being one of the founding members of EU as well as one of the three official headquarters to the EU’s institutions along with Brussels and Strasbourg.
- Luxembourg is the **5<sup>th</sup> largest investor** from the EU after the Netherlands, Germany, France, Cyprus and the **15<sup>th</sup> largest investor in India**. Since July 2014, Luxembourg’s cumulative investment in India has more than doubled – from \$1.088 billion to \$3.082 billion (March 2020).
- In 2019, Luxembourg issued a commemorative stamp to mark the 150th Birth Anniversary of Mahatma Gandhi.

### **Mega Trade Bloc RCEP Takes Off**

- The Regional Comprehensive Economic Partnership (RCEP), a mega trade bloc comprising 15 countries, signed the world's biggest free trade deal.
- The Association of Southeast Asian Nations (ASEAN) and its five-dialogue partner - Australia, China, Japan, Korea and New Zealand - met virtually in November 2020 and signed the agreement.

### **India’s Position on RCEP**

- India, which had been one of the original negotiating participants, walked out of the RCEP talks last year citing outstanding issues.
- However, the recently concluded agreement has given India the option of joining the bloc once New Delhi submits its intention of joining the pact in writing.
- In this regard, the bloc put out a separate document "**Ministers' Declaration on India's participation in the Regional Comprehensive Economic Partnership (RCEP)**" which recognised the **strategic importance of India**.
- It made provision for India to join in the future and **invited it to be an "observer"** at the RCEP any time prior to its accession to the trading bloc.

### **Why India Did Not Join The Bloc**

#### **A. Effect on Domestic Industry and Export**

- There was growing agitation against the pact not just from the **Indian industry** but also from **farmer groups**. Indian industries were fearful of **zero-tariff imports**, especially from **China**. Similarly, farmers were also protesting stating that cheap imports would destroy the dairy sector as also vegetable and fruit growers.
- As part of the agreement, India would have had to **eliminate import duties on 80-90 % items** over a period for which our industry and farmers were not prepared. So, there are fears that some domestic sectors like dairy, textile, steel may be negatively hit due to cheaper alternatives from other RCEP countries.
- The urge to protect domestic industries drove India to **demand an automatic safeguard mechanism**, enabling *built-in remedial action against surges in imports, particularly from China, beyond a threshold*. This was not accepted

- For protecting domestic industry from Chinese imports, **India demanded the base year** – for which tariffs were to be noted for phased cuts – **to be fixed at 2019**, instead of the previously agreed 2014.
- Since 2014, Indian tariffs have increased on several products such as smartphones to incentivise the 'Make in India' initiative. The 2019 tariffs are much higher and a reduction schedule kicking in from 2019 would mean allowing domestic industry more protection during the phase-out.
- India's **demand for stringent rules of origin** was also not agreed upon.
- Indian exporters may not gain much as agreements with other major countries such as ASEAN members, Japan and South Korea are already in place.
- Critics are also not confident that India would be able to take advantage of the deal, due to its poor track record of extracting benefits from the FTAs with these countries. Thus, there are fears that India's trade gap with these countries may increase if it signs the RCEP deal.

#### **B. The China Factor**

- China is India's biggest trading partner, accounting for almost 10% of overall trade.
- RCEP will further open the Indian market to China, with which India has a massive trade deficit. Of India's \$105-billion trade deficit with RCEP countries, nearly half was with China. Opening the market to China, in the absence of proper standards and processes, can prove to be disastrous
- The new rules in RCEP will make it easier for Chinese goods to be routed into India via a third country. So, if a Chinese company cannot export an item into India at a concessional duty, it may just route it through Vietnam.

#### **C. Lack Of Market Access And Gains In Services**

- India has also not received any assurances on its demand for more market access, and its concerns over non-tariff barriers. RCEP participants like China have used non-tariff barriers in the past to prevent India from growing its exports to the country.
- While more services trade may be promoted as a big advantage from RCEP, experience with Singapore and ASEAN shows that Indian professionals have not gained much. For instance, Singapore had virtually stopped issuing visas to Indian IT professionals, although it had committed to it under the FTA.
- Moreover, India's demands on services have not been addressed and suggestions such as visa-free travel in the region for Indian businessmen have been declined by negotiators from other countries, although the facility is available to the Chinese.
- In any case, negotiators from other countries have focused on extracting more on goods trade than offering any openings on services.

#### **Possible Impact**

- **On Indian Government** - The government no longer needs to make difficult concessions on agricultural trade.
- **On Other Members of RCEP** – They will not need to open their home markets to India's thriving, and low-cost, services sector. Other Members will be able to move forward faster with an agreement that was at risk of being jeopardized by India's foot-dragging.
- **On US** - The US, meanwhile, can take satisfaction from the fact that **its key regional ally in New Delhi is remaining outside of Beijing's orbit**. A stronger RCEP that included India would almost certainly have revived politically fraught question of whether Washington should rejoin the rival Trans-Pacific Partnership agreement or TPP.

- **ON RCEP** - As the second largest market in the group, and one of the largest global economies with a robust growth record, India would have been vital in the flourishing of the RCEP through new trade and investment creation.
- **On China** - For China, this comes as a huge achievement. The agreement would lower tariffs and open up the services trade within the bloc. The RCEP is now being looked at as a **Beijing-driven bloc** and an **alternative to the United States** in the region.

#### About RCEP

- Conceptualised in 2012, the Regional Comprehensive Economic Partnership (RCEP) is a proposed free trade agreement (FTA) between ASEAN nations and its FTA partners.
- The ten ASEAN member nations include Singapore, Thailand, Vietnam, the Philippines, Cambodia, Brunei, Laos, Malaysia, Myanmar and Indonesia.
- The FTA partners of the ASEAN nations included China, Japan, Australia, New Zealand, South Korea and India. After India's pull out, ASEAN nations only have five FTA partners now.
- **Its principal purpose** is to "*achieve a modern, comprehensive, high-quality and mutually beneficial economic partnership agreement among the ASEAN Member States and ASEAN's FTA Partners.*"
- The agreement would cover a market of 2.2 billion people, or almost **30 per cent of the world's population**, with a combined GDP of US\$ 26.2 trillion or about **30 per cent of global GDP**, and accounts for nearly **28 per cent of global trade** (based on 2019 figures).
- RCEP will lower tariffs, open up trade in services and will allow for common set of rules of origin to qualify for tariffs reduction with other RCEP members.
- This will lead to cost reductions and improved market access by letting companies to export products anywhere within the bloc without meeting separate requirements for each country.
- Less procedures and easier movement of goods will encourage multinational firms to invest more in the region, build supply chains and distribution hubs and lead to the creation of an integrated market.

#### Debate: By Not Joining the RCEP, India Has Missed The Opportunity

##### Arguments in Favour

- **Economic Powerhouse** - A concluded RCEP will constitute the world's largest trade bloc by both GDP and population, and be the second largest (behind the EU) in terms of share of world trade.
- **Economic Integration** - RCEP would have provided India with an eastern economic bridge and would have helped India's economic integration in the Indo-Pacific region. The momentum from a concluded RCEP could also support India's accession into APEC. **India is likely to face isolation.**
- **Bright Future** - The implications of RCEP's current and expected future size for the regional and global trading architectures are significant. At the regional level, its **developing country-focused model** will likely become the template for the next phase of trade and investment liberalisation.
- **Geopolitical implications** - A concluded RCEP would likely advance its adoption in Southeast Asia by **creating an Indo-Pacific institution in which ASEAN's central position is secured.** Giving up on the RCEP means considerable loss of geopolitical goodwill for India.
- **Strategic Implication** - It gives a message that, on trade, **India is a very difficult partner** and unwilling to go along with the rest of the region on a common agenda. Its trade policy is hardly complementing of its foreign policy. Not only that, India's **celebrated outreaches like the 'Act East' policy** would take a hit.

- Disengaging from the RCEP would mean **ceding considerable strategic turf to China in the region.**

**Arguments Against**

- **Flooding of Cheap Chinese Goods-** India's trade deficit with China accounts for about 50 percent of the country's total trade deficit. Joining RCEP would have flooded Indian Market with Cheap Chinese goods.
- **High Trade Deficit** - India has trade deficits with 11 of the 15 other RCEP members, many of them sizable. Joining RCEP would have made this deficit unsustainable.
- **Cost Benefit** - As a country with one of the highest average tariff rates on all imports among RCEP members, India would be among those making the largest cuts to get tariffs to zero. It also was not clear whether the benefits of the deal would make up for that cost.
- **Inherent Diversity** - Its members include some of the most advanced members of the OECD, alongside several lesser-developed economies, who naturally have major differences between their economic interests and capacity for trade reform. Members of RCEP would need to **strike a balance** between its **ASEAN-centred institutional form** and its **China/Japan -dominated economic geography.**

**15th East Asia Summit**

- 15th East Asia Summit (EAS) was held virtually in November 2020. The Summit was **chaired by the PM of Vietnam** in his **capacity as ASEAN Chair.**
- India was represented by External Affairs Minister Dr. S. Jaishankar. Last year, in 2019, India was represented by PM Modi.
- Besides **Ha Noi Declaration**, the Summit also adopted four other Leaders' Statements on **Marine Sustainability; Epidemics Prevention and Response; Women, Peace and Security; and Steady Growth of Regional Economy.**

**About EAS:**

- The East Asia Summit is the **premier forum in the Asia-Pacific region** to deal with issues relating **security and defence.**
- Since its **inception in 2005**, it has played a significant role in the strategic, geopolitical and economic evolution of East Asia.
- This year marked the 15<sup>th</sup> anniversary of the EAS, which is the only leaders-led forum of its kind that brings the US, China, Russia, India, RoK and Australia together at one platform.
- EAS comprises the **ten member states of the ASEAN** as well as **Australia, China, Japan, India, New Zealand, the Republic of Korea, Russia and the United States.**
- The 18 member of EAS together represent 54% of the world population and account for 58% of the global GDP.

**Indo-Pacific Oceans Initiative**

- While delivering a speech at EAS summit in 2019 at Bangkok, the Indian PM had proposed an **"Indo-Pacific Oceans Initiative"** for safe, secure and stable maritime domain.

- PM outlined global challenges facing the world today including **rules-based international order in the Indo-Pacific region** and highlighted the **need for working together to find out common solutions**.

**Key Highlights:**

- **Aim of this initiative** - To conserve and sustainably use the maritime domain, and to make meaningful efforts to create a safe, secure and stable maritime domain.
- **Focus areas** - “*creating partnerships*” among interested countries in several pillars, ranging from “**enhancing maritime security** to preserving and sustainably using marine resources, **building capacity, disaster prevention and management**, as well as working together in **trade, and maritime transport**”
- India will organize an **Indo-Pacific Conclave in Chennai** early next year so as to take forward this initiative.
- So far, **Japan, Australia and Thailand have supported this initiative** and many more ASEAN member states are expected to do so in near future.

**India Mobile Congress 2020**

- The India Mobile Congress (IMC) 2020, the **fourth edition of Asia’s largest annual digital technologies event**, will be conducted virtually in December 2020.
- Theme - “**Inclusive Innovation – Smart | Secure | Sustainable**”
- **Jointly organised** by - the Department of Telecommunications (DoT) and Cellular Operators Association of India (COAI).
- IMC2020 is the biggest technology platform in Asia that brings together top policymakers and other stakeholders to discuss and deliberate on critical industry issues that result in policy decisions and affect market trends in addition to inviting investments into the sector and driving innovations.

**FAO Launches Food Coalition**

- Food and Agriculture Organization (FAO) of the United Nations has **launched a Food Coalition**.
- **Proposed by Italy** and led by FAO, the alliance aims to increase resilience of agricultural food systems, ensure global food access.
- It will also help countries get back on track to achieve the UN-mandated Sustainable Development Goals by 2030, especially the ones on ending hunger and poverty.
- More than 30 countries have already expressed interest in joining the coalition.
- The Food Coalition would work towards:
  - Mobilising resources, expertise and innovation
  - Advocating for a joint and coordinated COVID-19 response
  - Promoting dialogue and exchange of knowledge and expertise among countries
  - Working towards solution-oriented plans and programmes
  - Expanding international cooperation and partnership for a longer-term impact

**Need for Such Coalition**

- The COVID-19 pandemic has pulled food systems apart, threatening food security and nutrition.

- At least 690 million people went hungry in 2019, according to the **State of Food Security and Nutrition in the World report, 2020**.
- As per report, the pandemic could tip over 130 million more people into chronic hunger by the end of 2020.
- Global food prices continued to rise in October for the fifth successive month, according to the **FAO Food Price Index**.

### **FIRs for Cybercrime**

The Ministry of Home Affairs has asked all States to examine and register FIRs based on the complaints received on National Cybercrime Reporting Portal- [www.cybercrime.gov.in](http://www.cybercrime.gov.in).

#### **Current Status:**

- As per data available with the MHA, currently, only 2.5% of total complaints registered on the portal are converted into FIRs.
- The **rate of conversion of complaints to FIRs is very low**. However, the number of registered cybercrimes are increasing day by day.
- According to data compiled by the NCRB, the number of registered cybercrimes increased by 63.5% in the year 2019 compared to the previous year.

#### **Role of Cyber Crime Volunteers**

- MHA is planning to raise a group of “**cybercrime volunteers**”. These volunteers will be tasked to **flag “unlawful content” on the Internet**.
- Good Samaritans will be encouraged to register as Cyber Crime Volunteers in the role of Unlawful Content Flaggers for facilitating law enforcement agencies in identifying, reporting and removal of illegal / unlawful online content.

#### **Background:**

- The portal was launched in August 2019 to help people **report all kinds of cybercrimes** on a centralised platform.
- An earlier version of the portal launched in September 2018 **on the directions of the Supreme Court, catered only to complaints of child pornography, sexual harassment crimes against women and children**.

### **Army Aviation Corps**

Recently, the Army Aviation Corps (AAC), the youngest Corps of Indian Army, celebrated its 35<sup>th</sup> Corps Day on November 1.

#### **Origin Of Army Aviation Corps:**

- The origin of AAC can be traced back to the raising of Army Aviation wing of the Royal Air Force in Indian in 1942. Subsequently, the first Indian Air Observation Post was formed in August 1942.
- Finally, the AAC was raised as a separate formation on November 1 in 1986.
- AAC primarily acts as artillery spotters – which are the elements that help the artillery in directing the fire and also giving air support to ground forces.
- It also provides logistical support to the Indian army.

### **Panel to Review Guidelines on Television Ratings**

The government has constituted a **four-member committee** to study different aspects of the **television rating system in India** as they have evolved over a period of time. It will be **headed by Shashi Shekhar Vempati**, CEO of Prasar Bharati.

#### **Background:**

- The Centre's move comes following a row over an alleged TRP scam. The Mumbai Police recently claimed to have busted the Television Rating Points (TRP) scam.
- As the controversy surrounding the alleged scam grew, the **Broadcast Audience Research Council (BARC)**, which provides TRP data, announced a temporary suspension of weekly ratings of news channels across languages.

[For detailed discussion on TRP scam, please refer the topic “**TRP Manipulation Case**” from October 2020 edition of CA magazine]

### **Study to Probe Radicalisation in India**

- The Ministry of Home Affairs (MHA) has approved a study to analyse radicalisation in India.
- It will also suggest practicable solutions to remedy and/or prevent the problem and also indicate how the Unlawful Activities (Prevention) Act can be amended.
- **Name of the Study** - Status of Radicalisation in India: An Exploratory Study of Prevention and Remedies
- The study will be conducted by **G.S. Bajpai**, Director of the Centre for Criminology and Victimology, National Law University, Delhi.

#### **Importance Of The Study**

- Systematic radicalization is a threat to Internal Security of India. Currently, there is **no clear definition of radicalisation** in the legal system.
- States like Maharashtra, Assam, Kerala and Jammu & Kashmir have reported cases of radicalisation.
- The study will focus on the process of radicalisation, its actors, target youths. It would lead to **understanding of the pattern and dynamics of radicalisation**.
- **Aggressive policing measures** could be counter-productive as the youth who were radicalised were “misguided” and not the culprits.
- The threat from **radicalisation is highly underestimated and understudied** in India. This cluelessness is evident in the **absence of an official policy on radicalisation and de-radicalisation**.

#### **Types of Radicalisation in India**

- **Left-Wing Radicalisation** – Many youths are getting attracted towards the idea of using violent means for the transformation of political systems considered responsible for producing social inequalities. Despite the continued government intervention, the instances of Left-Wing Extremism are increasing.
- **Right-Wing Radicalisation** – Right-wing extremism is characterized by the use of violent means to defend the racial, ethnic or pseudo-national identity. These types of extremism show radical hostility towards state authorities, minorities, immigrants and/or left-wing political groups. Increased instances of mob lynching, cow vigilantism and the string of assassinations of rationalists such as Narendra

Dabholkar, Govind Pansare and Gauri Lankesh point towards rising extremism in the right wing cadres.

- **Politico-Religious Radicalisation** - It results from political interpretation of religion and the defence, by violent means, of a religious identity perceived to be under attack.
- **Radicalisation by terrorist Groups** – India is witnessing rise in incidents where youths are joining the terrorist organization as a fighter. Many youths from Kerala, Maharashtra etc. have travelled to Syria in order to join ISIS.

### India's Radicalisation Landscape

- **Islamist radicalisation is not the biggest threat** in India today, as Indian Islam has largely rejected extremist ideologies and approaches.
- Moreover, the country's **pluralistic beliefs, political culture and secular-democratic** ethos inform most of its society.

### Deradicalisation Programmes in India

- In India, deradicalisation programmes are not an entirely new concept. The Indian armed forces and their outreach programmes dealing with issues such as healthcare, clergies and financial stability are classified as “**broad stroke deradicalisation efforts**” via **community outreach**.
- The government has started policy of “**surrender-cum-rehabilitation**”. It has seen mixed success rates, i.e. the programmes have fared well in places such as erstwhile J&K and some Northeastern states of India, while less in the states afflicted by Naxalism.
- In 2015, government appointed a **special envoy for counterterrorism**, under the **National Security Council Secretariat (NSCS)**.
- One of the core mandates of this was to develop the new counter-radicalisation programme for state governments and other agencies to run.
- MHA in 2014 set up a new Counterterrorism and Counter-Radicalisation Division (CT-CRD).
- State Governments have also launched their own de-radicalisation programmes.
  - **In Maharashtra**, the deradicalisation programme is run by the state's ATS, which is part of the Mumbai Police's ranks.
  - The programme was launched in 2016 under orders from the Union Home Ministry.
  - The agenda includes opening vyayam shalas (exercise centres) in minority areas (i.e. Muslim-centric population); making National Cadet Corps (NCC), Bharat Scouts and Guides compulsory in minority schools etc.
  - **Kerala** launched its deradicalisation programme in 2016, and has been largely successful. “**Operation Pigeon**,” orchestrated by the Kerala state police, claims to have saved the lives of 350 youths by approaching them before they were radicalised via social media monitoring.

### Frontier Highway Project

Arunachal Pradesh has been pushing for the ambitious Frontier Highway project along the “India-Tibet border”. The project would facilitate faster movement of troops if a war-like situation arises.

#### About the Project

- The project is also called as the **Arunachal Frontier Highway** and **Mago-Thingbu– Vijaynagar Border Highway**. It is 2,000-kilometre-long road which follows the McMahon Line.

- It accompanies the **Trans-Arunachal Highway** (through the middle) and the **Arunachal East-West Corridor** (in the foothills along the Assam border) as major highways spanning Arunachal Pradesh, pursuing the Look East connectivity concept.

### **Global Conference on Criminal Finances and Cryptocurrencies**

- The **4th Global Conference on Criminal Finances and Cryptocurrencies** was held virtually.
- **Organised by** - Interpol, Europol and the Basel Institute on Governance.
- The aim of this conference was to strengthen knowledge, expertise and best practices for investigations into financial crimes and intelligence on virtual assets and cryptocurrencies.

### **Pangda Village**

- A new border village has been built by China near Bhutan. Although Chinese authorities claim that the village is situated on their territory, the released images of the village show its location on territory disputed by Bhutan and China.
- Pangda is east of the **India-Bhutan-China trijunction on the Doklam plateau**, which was the site of a 72-day stand-off in 2017.
- It is for the first time since **2017 that a Chinese residential area** has been noticed near the Doklam region, which is strategically important for India.

### **Tinnitus**

- New research has found that **tinnitus is being exacerbated by Covid-19** — and also by the measures against the infection. It found that 40% of those displaying symptoms of Covid-19 simultaneously experience a worsening of their tinnitus.
- Tinnitus is a common condition that causes the **perception of noise or ringing in the ears and head**.
- Tinnitus isn't a condition itself — it's a **symptom of an underlying condition**, such as age-related hearing loss, ear injury or a circulatory system disorder.

### **IPBES Report on Future Pandemics**

- The **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem (IPBES)** report has warned about future pandemics.
  - According to WHO, a pandemic is the **worldwide spread of a new disease**.
  - An influenza pandemic occurs when a new influenza virus emerges and spreads around the world, and **most people do not have immunity**.
- According to the report, these pandemics **will emerge more often, spread more rapidly and do more damage to the world**, unless significant measures are taken.
- The report notes that **COVID-19 is at least the sixth pandemic** to have taken place in the last century since the **Great Influenza Pandemic of 1918**.
- Three of the pandemics were caused by influenza viruses, one by HIV followed by SARS and COVID-19.

- More than **70% of emerging diseases**, such as Ebola, Zika and Nipah, **are caused by microbes found in animals** that spill over due to contact among wildlife, livestock and people.
- About **30% of emerging infectious diseases** are attributed to **land-use change, agricultural expansion and urbanisation**.
- Further, **almost 100% of the pandemics so far**, which includes influenza, SARS and COVID-19, have been **zoonoses (diseases caused by germs that spread between animals and people)**.
- The estimated value of the legal international wildlife trade in 2019 was about \$107 billion, a 500% increase since 2005 and a 2000 per cent increase since the 1980s.
- **Suggested Measures**
  - The pandemic risk can be lowered by reducing the human activities that drive the loss of biodiversity, by greater conservation of protected areas and through measures that reduce unsustainable exploitation of high biodiversity regions. This will help in **reducing the contact between wildlife-livestock and humans**, thereby helping prevent the spill-over of new diseases.
  - **Reducing zoonotic disease risks** in the international wildlife trade through a new intergovernmental 'health and trade' partnership.
  - A number of policy options that can help reduce the pandemic risk, which includes **launching a high-level intergovernmental council on pandemic prevention**, countries setting mutually-agreed goals or targets regarding the environment, animals and people.
- Ensuring that the **economic cost of pandemics is factored** into consumption, production, and government policies and budgets.

#### **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem (IPBES)**

- IPBES is an **independent intergovernmental body** established in Panama City, on 21 April 2012 by 94 Governments.
- It aims to **strengthen the science-policy interface for biodiversity and ecosystem services** for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- It is **not a United Nations body**. However, the **United Nations Environment Programme (UNEP)** provides secretariat services to IPBES.

#### **Bulk Drug Park**

- Himachal Pradesh is vying for the allotment of a **bulk drug park** under a central government scheme announced earlier this year.
- A **bulk drug**, also called an **active pharmaceutical ingredient (API)**, is the key ingredient of a drug or medicine, **which lends it the desired therapeutic effect** or produces the intended pharmacological activity.
- For example, paracetamol is a bulk drug, which acts against pain. It is mixed with binding agents or solvents to prepare the finished pharmaceutical product, i.e. a paracetamol tablet, capsule or syrup, which is consumed by the patient.
- APIs are prepared from **multiple reactions involving chemicals and solvents**. The primary chemical or the basic raw material which undergoes reactions to form an API is called the **Key**

**Starting Material (KSM).** Chemical compounds formed during the intermediate stages during these reactions are called **Drug Intermediates (DIs).**

#### **Scheme For Promotion Of Bulk Drug Parks**

- The scheme envisages the **creation of 3 bulk drug parks in the country.**
- The grant-in-aid will be 90% of the project cost in case of North-East and hilly States and 70% in the case of other States. Maximum grant-in-aid for one bulk drug park is limited to Rs.1000 crore.
- A bulk drug park will have a designated contiguous area of land with **common infrastructure facilities for the exclusive manufacture of APIs, DIs or KSMs,** and also a common waste management system.

#### **Significance Of Promoting Bulk Drug Park In India**

- India has one of the largest pharmaceutical industries in the world (**third-largest by volume**) but this industry largely depends on other countries, particularly China, for importing APIs, DIs and KSMs.
- This year, drug manufacturers in India suffered repeated setbacks due to disruption in imports.
- In January, factories in China shut down when the country went into a lockdown, and later, **international supply chains were affected** as the Covid pandemic gripped the entire world. The **border conflict between India and China** exacerbated the situation.
- These factors **directly affected pharmaceuticals industries** in India. To tackle these disruptions, it is important to promote bulk drug parks in the country.
- These parks are **expected to bring down manufacturing costs** of bulk drugs in the country and **increase competitiveness in the domestic bulk drug industry.**

#### **World Diabetes Day**

- World Diabetes Day (WDD) is marked every year on **14 November**, the birthday of **Sir Frederick Banting**, who **co-discovered insulin along with Charles Best in 1922.**
- The **theme** for World Diabetes Day 2020 is "**The Nurse and Diabetes.**" The campaign aims to raise awareness around the crucial role that nurses play in supporting people living with diabetes.
- The campaign is represented by a **blue circle logo that was adopted in 2007.**
- **Diabetes is a chronic disease**, which occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. This leads to an increased concentration of glucose in the blood (hyperglycaemia).
  - **Type 1 diabetes** (previously known as insulin-dependent or childhood-onset diabetes) is characterized by a lack of insulin production.
  - **Type 2 diabetes** (formerly called non-insulin-dependent or adult-onset diabetes) is caused by the body's ineffective use of insulin. It often results from excess body weight and physical inactivity.
  - **Gestational diabetes** is hyperglycaemia that is first recognized during pregnancy.
- Diabetes is one of the key problems plaguing many people in **India**, which houses the **second-largest number of people with diabetes** — more than 95% of whom have type 2 diabetes — second only to China.
- According to the **International Diabetes Federation (IDF)**, with the current explosive growth trends, the number of diabetics is likely to increase to 134 million in 2045 from 77 million in 2019.

### **Software Technology Parks of India (STPI)**

- The **Software Technology Parks of India (STPI)** is investing up to ₹400 crores in setting up office and connectivity infrastructure across several cities, offering small technology firms a 'plug-and-play' facility.
- STPI was set up in 1991 as an **autonomous society** under the **Ministry of Electronics and Information Technology (MeitY)**. It's Governing Council is chaired by the Union Minister for Electronics & Information Technology.
- It's main objective is **to promote software exports** from the country. It provides a '**single-window**' in facilitating services to the software exporters.
- The services rendered by STPI for the software exporting community includes statutory services, data communications services, incubation facilities, training and value-added services.
- STPI has been implementing the **Software Technology Park (STP) scheme** and the **Electronics Hardware Technology Park (EHTP) scheme** for the promotion of Information technology (IT) and IT-enabled services (ITeS) industry.
- It has played a key developmental role in the promotion of software exports with a **special focus on Small and Medium Enterprises (SMEs) and startup units**.

### **Gandhian Young Technological Innovation Awards**

- Union Minister of Science & Technology has given away awards under **Gandhian Young Technological Innovation (GYTI) Awards**.
- GYTI Awards celebrate the spirit of student innovation in all the fields of **engineering, science, technology and design** through extremely affordable/frugal solutions or the ones pushing the technological edge.
- GYTI awards **constitute two categories of awards**:
  - i) **Students Innovations for Advancement of Research Explorations (SITARE-GYTI)** under Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology (DBT)
  - ii) **Society for Research and Initiatives for Sustainable Technological Innovations (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**.

### **Enhanced Pinaka Mk-1 Missile**

- **Enhanced PINAKA rocket**, developed by **Defence Research and Development Organisation (DRDO)**, was successfully flight tested from Integrated Test Range, Chandipur off the coast of **Odisha**.
- Development of the Enhanced Pinaka system was taken up **to achieve longer range performance** compared to earlier designs with a reduced length. While the Mark-1 has a range of 38 km, the **enhanced version of Mark-1 tested has a range of 45 km**.
- The Enhanced Pinaka Mk-1 will **eventually replace the Pinaka Mk-1 missiles**, which are currently used by regiments of the Indian Army along India's frontiers with China and Pakistan.

- The Pinaka, a **multi-barrel rocket-launcher (MBRL) system** named after Shiva's bow, produced in India and **developed by the DRDO for the Indian Army** in the late 1980s.
- It can fire a salvo of 12 rockets over a period of 44 seconds. One battery of the **Pinaka** system consists of **six launch vehicles**, accompanied by **loader systems, radar and links with network-based systems and a command post**. One battery can neutralise an area of 1 km by 1 km.
- As a key tactic of long-range artillery battle, the **launchers have to 'shoot and scoot'** to ensure they themselves do not become the targets, especially being detectable due to its back blast.
- DRDO has also developed and successfully tested the **Mk-II and guided variants of the Pinaka**, which has a range of around 60 km, while the Guided Pinaka system has a range of 75 km and has integrated navigation, control and guidance system to improve the end accuracy and enhance the range.
- The navigation system of Guided Pinaka missile is also aided by the **Indian Regional Navigation Satellite System (IRNSS)**.

### Kalvari Class of Submarines

- Indian Navy's **Kalvari-class Diesel Electric attack submarine Indian Naval Ship (INS) Vagir** was launched at Mazgaon Dock in Mumbai.
- 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**.
- The ship is designed by French naval company Direction des Constructions Navales (DCNS) as part of **Indian Navy's Project-75**.
- The first Vagir, a submarine from Russia, was named after the **Sand Fish**, a deadly deep-sea predator of the Indian Ocean. It was commissioned into the Indian Navy in December, 1973 and was decommissioned in June, 2001. The ship has been redeveloped by the same name - Vagir, by Mazagon Dock.
- The state-of-the-art technology utilized in the rebuilt **Scorpene** has ensured superior stealth features such as advanced acoustic absorption techniques, low radiated noise levels, hydro-dynamically optimised shape etc.
- It has the ability to launch an attack on the enemy using precision-guided weapons.
- The attack can be launched with both torpedoes and tube-launched anti-ship missiles, whilst **underwater or on the surface**.

India is currently operating one submarine each in <b>nuclear powered Classes of Chakra and Arihant</b> . In addition, it also operates 14 submarines belonging to three classes of Diesel Electric category – Kalvari, Shishumar and Sindhughosh. Many of these are ageing.
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### Kalvari Class of Submarines

- These submarines are built under project 75 and their **design 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 primarily attack **submarines or 'hunter-killer' types** which means they are designed to target and sink adversary naval vessels.

- The Kalvari class is capable of **offensive operations across the entire spectrum of naval warfare** including anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance.
- The Submarine is **designed to operate in all theatres of operation**, showcasing interoperability with other components of a Naval Task Force.

### **Project 75 India (P75I)**

- The P75I project is part of a 30-year submarine building plan that ends in 2030. As part of this plan, India was to build 24 submarines — **18 conventional submarines and six nuclear-powered submarines (SSNs)** — as an effective deterrent against China and Pakistan.
- India possesses 14 submarines belonging to three classes of Diesel Electric category — **Kalvari, Shishumar and Sindhughosh**. It also has two nuclear-powered submarines —
  - **INS Arihant** (SSBN, a ballistic missile submarine)
  - **INS Chakra** (SSN, a nuclear-powered one) leased from Russia.
- The project is given support by the **Department of Defence Production (MoD)** and Indian Navy throughout its various phases of construction.

### **Government To Regulate OTT Platforms**

- The Union government brought **Over the Top (OTT) platforms or video streaming service providers** such as Netflix, Amazon Prime and Hotstar, and news websites under the ambit of the **Information & Broadcasting ministry for regulation**.
- In the case of streaming services, this creates a level playing field between linear TV and OTT services, and in the case of digital news, this means companies in the space will be treated akin to print and electronic media companies.
- **Currently, there is no law or autonomous body governing digital content.**
- In January 2019, eight video streaming services had signed a **self-regulatory code** that laid down a set of guiding principles for content on these platforms. This code **prohibited five types of content**:
  - Content that deliberately and maliciously disrespects the national emblem or national flag
  - Any visual or storyline that promotes child pornography
  - Any content that “maliciously” intends to outrage religious sentiments
  - Content that “deliberately and maliciously” promotes or encourages terrorism
  - Any content that has been banned for exhibition or distribution by law or court.
- The government had refused to support this code.

### **OTT Platforms**

- An “over-the-top” media service is any online content provider that **offers streaming media as a standalone product**. The term is commonly applied to video-on-demand platforms, but also refers to audio streaming, messaging services, or internet-based voice calling solutions.
- OTT services **circumvent traditional media distribution channels** such as telecommunications networks or cable television providers.

### **World Science Day for Peace and Development**

- Celebrated every **10 November** under **UNESCO** auspices, **World Science Day for Peace and Development** highlights the important role of science in society and the need to engage the wider public in debates on emerging scientific issues.
- It aims to ensure that citizens are kept informed of developments in science. It also underscores the role scientists play in **broadening the understanding of the planet and in making societies more sustainable**.
- The theme for 2020 is "**Science for and with Society in dealing with Covid-19.**"
- The event is the positive outcome of the **1999 World Conference on Science in Budapest**. It was considered as an opportunity to reaffirm the commitment to attaining the goals proclaimed in the **Declaration on Science and the Use of Scientific Knowledge** every year. It was also required to follow up on the recommendations of the **Science Agenda: Framework for Action**.

### **Anti Satellite (A-SAT) Missile**

- A model of **Anti Satellite (A-SAT) Missile** installed inside the DRDO Bhawan premises was unveiled by the Union Defence Minister.
- '**Mission Shakti**' was the country's **first-ever Anti-Satellite (ASAT) Missile Test** successfully conducted in 2019 from Dr APJ Abdul Kalam Island in Odisha. Under the mission, a fast-moving Indian orbiting target **satellite in Low Earth Orbit (LEO) was neutralised with pinpoint accuracy**.
- **Significance**
  - The successful conduct of Mission Shakti **made India the fourth nation** in the world with the capability **to defend its assets in outer space**. Anti-satellite technology has so far been in the hands of the **United States, Russia and China**.
  - The fact that this anti-satellite technology is indigenously developed **adds to India's credentials**, given that for many decades India was kept away from acquiring key technologies, forcing the country to develop its own space and nuclear capabilities.
  - The anti-satellite space technology **shows India's focus on security challenges**, emanating beyond Pakistan.
  - The acquisition of this technology is expected to have spin-offs that India can exploit for **commercial use, both domestic and globally**.
- **International Law:**
  - The principal international treaty on space is the **1967 Outer Space Treaty**. India is a **signatory and ratified it in 1982**.
  - The Outer Space Treaty **prohibits only weapons of mass destruction in outer space**. India expects to play a key role in the drafting of **international law on the prevention** of arms race in outer space.

### **Asteroid 16 Psyche**

- A recent study from **NASA's Hubble Space Telescope** has found that **asteroid 16 Psyche** could be made entirely of metal and is **worth an estimated \$10,000 quadrillion** — more than the entire economy of Earth.

- The asteroid 16 Psyche, **orbiting the Sun between Mars and Jupiter**, is one of the most massive objects in the asteroid belt in our solar system. Its surface may mostly consist of iron and nickel, similar to the Earth's core.
- It was **first discovered on March 17, 1853**, by the Italian astronomer Annibale de Gasparis and was named after the ancient Greek goddess of the soul, Psyche.
- It is located roughly 370 million kilometres (230 million miles) from the Earth and measures 226 kilometres across (140 miles).
- Unlike most asteroids that are made up of rocks or ice, Psyche is a **dense and largely metallic object** thought to be the core of an earlier planet that failed in formation.
- The asteroid may be the leftover core of an earlier planet that lost its crust and mantle after multiple collisions during the creation of our solar system.
- This is the first time that **iron oxide ultraviolet absorption bands are identified on any asteroid**. This is an indication that oxidation is happening on the asteroid, which could be a result of the solar wind hitting the surface. **Solar wind** refers to a **stream of charged particles** emitted from the sun's hot outer atmosphere, which is known as its **Corona**.
- The asteroid is made up of almost entirely of iron, nickel and several other rare materials like gold, platinum, cobalt, iridium and rhenium. Metal asteroids are not commonly found in the solar system, and asteroid Psyche discoveries **may suggest how Earth's core and the cores of the other terrestrial (rocky) planets came to be**.

#### **NASA's Psyche mission**

- The Psyche mission will explore metallic asteroid 16 Psyche which appears to be the **exposed nickel-iron core of an early planet**, one of the building blocks of our solar system. The unmanned spacecraft will reach the asteroid in January, 2026.
- The first objective of the mission is **to capture a photograph of the metallic asteroid**, after which the spacecraft will study and map it from a distance.
- Another objective of the mission is **to determine whether the asteroid is the core of an earlier planet or if it is merely made up of unmelted material**. Based on the data collected, scientists will also ascertain the age and origins of the mammoth metallic asteroid.
- The mission was originally slated to take place in 2023, but was later moved up to 2022.

#### **Asteroid Apophis**

- A **near-Earth asteroid Apophis**, which was expected to pass extremely close to Earth, may now hit it in 2068 due to a phenomenon called **Yarkovsky effect**, which is a continuous slight push from the sunlight. This effect has eventually accelerated the asteroid's flow and also changed its path.
- Asteroid Apophis, discovered in 2004, is a 1,120-foot-wide (340-meter-wide) asteroid.
- The sun can heat an asteroid in a non-uniform way, causing the space rock to **radiate heat energy asymmetrically**. This can cause a thrust or a tiny push in a certain direction, sometimes **changing the path of the asteroid**. This effect is called the **Yarkovsky acceleration**.
- Before the discovery of the Yarkovsky effect, the possibility of the collision was impossible.
- Apophis may approach extremely close to the Earth on April 13, 2029, when it will become visible to the unaided eye as it passes within the belt of communications satellites orbiting the Earth.

### **NASA's Crew 1 Mission**

- **SpaceX's Crew Dragon spacecraft** was launched from NASA's Kennedy Space Center carrying a crew of four people to the **International Space Station (ISS)**. The crew **will conduct science and maintenance** during a six-month mission aboard the orbiting laboratory.
- 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.
  - This program is changing the arc of human spaceflight history by **opening access to low-Earth orbit and the International Space Station to more people, more science, and more commercial opportunities**.
  - Boeing and SpaceX were selected by NASA in September 2014 to develop transportation systems meant to transfer crew from the US to the ISS.
- Some of the research that the crew is carrying with themselves includes **materials to investigate food physiology**, which will study the effects of dietary improvements on immune function and the gut microbiome and **how those improvements can help crews adapt to spaceflight**.
- Another experiment aboard the Crew Dragon is a student-designed experiment titled, "**Genes in Space-7**" that aims to understand **how spaceflight affects brain function**.
- Other experiments include research that will enable scientists to understand the physical interactions of liquid, rocks and microorganisms, experiment on the role of microgravity on human health and another on how microgravity affects heart tissue.

### **Fast Radio Burst Detected in Milky Way**

- NASA has observed the **first fast radio burst (FRB)** never observed before in the Milky Way galaxy.
- The **Milky Way** is the galaxy that contains our **Solar System and several hundred billion stars**. It takes its name from the Milky Way, the irregular luminous band of stars and gas clouds that stretches across the sky as seen from Earth.
- FRBs are **bright bursts of radio waves whose durations lie in the millisecond-scale**, because of which it is difficult to detect them and determine their position in the sky. Radio waves can be produced by astronomical objects with changing magnetic fields.
- FRBs were **first discovered in 2007**, when scientists combed through archival **pulsar data**. Pulsars refer to **spherical, compact objects in the universe**, which are about the size of a large city but **contain more mass than the sun**. They often look like flickering stars but are **not actually stars**.
- The source of this FRB detection 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.
- It is possible that the FRB-associated burst was exceptional because it likely occurred at or close to the magnetar's magnetic pole.
- Significance: This observation answers a big question in the field of FRB study. Before the discovery of this FRB, the lack of accompanying radiation was slowly lending credence to the theory that

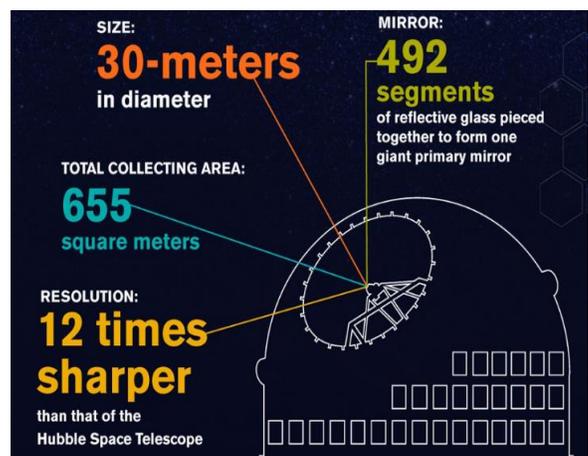
magnetars may not be the sources of FRBs after all. However, the latest findings **confirm the accompaniment of X-rays with FRBs, strengthening magnetar origin theory.**

### Magnetar

- A **magnetar** (a contraction of the magnetic star) is a **neutron star with an ultra-strong magnetic field**. 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. The **idea of a magnetar was first proposed in 1987**.
- Magnetars are known to **produce jets of gamma rays and X-rays**, which also last for mere milliseconds and carry a huge burst of energy.
- They are formed in the same way as all neutron stars, which are formed **when the core of a massive star undergoes gravitational collapse** when it reaches the end of its life. This results in the matter being so tightly packed that even a sugar-cube sized amount of material taken from such a star weighs more than 1 billion tons, which is about the same as the weight of Mount Everest.
- 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. In the case of SGR 1935, for instance, the X-ray portion of the simultaneous bursts it released carried as much energy as the Sun produces in a month, assuming that the magnetar lies towards the nearer end of its distance range.

### Thirty Meter Telescope Project

- Indian astronomers collaborated with **2020 Physics Nobel Laureate Prof. Andrea Ghez** on the design of back-end instruments and possible science prospects of the **Thirty Meter Telescope (TMT) project** being installed at Maunakea in Hawaii.
- The TMT project is an **international collaboration** of institutions in the **USA, Canada, Japan, China and India**; through the Department of Science and Technology (DST) and Department of Atomic Energy (DAE).
- **“Thirty Metre”** refers to the **30-metre diameter of the mirror**, with 492 segments of glass pieced together, which makes it three times as wide as the world's largest existing visible-light telescope. **The larger the mirror, the more light a telescope can collect**, which means, in turn, that it can “see” farther, fainter objects.
- TMT is a new class of extremely large telescopes that will allow scientists to see deeper into space and observe cosmic objects with unprecedented sensitivity.
- This unique instrument will allow astronomers to address fundamental questions in astronomy ranging from **understanding star and planet formation to unravelling the history of galaxies and the development of large-scale structure in the universe**.
- One of its key uses will be the **study of exoplanets** and whether their atmospheres contain water vapour or methane — the signatures of possible life.



- It is expected to provide facilities with even greater capabilities to gather the observations needed to answer new and emerging questions in astronomy and physics in general.

*For more details about Nobel in Physics, Please refer to The Recitals October 2020*

### **Dry Swab-Direct RT-PCR Method**

- The **Dry Swab-Direct RT-PCR method** has now been approved by the **Indian Council of Medical Research (ICMR)** for scaling up the COVID-19 testing.
- It is developed by the **CSIR-Centre for Cellular and Molecular Biology (CCMB)**.
- This method is a simple variation of the existing gold standard RT-PCR method. It involves **collecting and transporting the nasal swab in a dry state** which makes the transportation and handling of the samples easy and less prone to spillage and spread of infection.
  - In the conventional testing method, **nasopharyngeal** — nose or oropharyngeal — **throat swab samples** collected are generally **placed in a liquid called Viral Transport Medium (VTM)**.
  - To avoid leakage, the samples are **packed heavily that adds on to sample processing times** at both the sample collection and testing centres.
  - However, there could **still be leakages from samples**, which render those batches untestable and unsafe in handling.
- The step of RNA isolation from the sample is also omitted and involves **only simple processing of the sample followed by direct RT-PCR** using the kit recommended by ICMR.
- **Benefits: Cost-effective**, easy to implement with **no requirement of new kits** and existing manpower can perform this with **no additional training**.

### **Mission COVID Suraksha**

- The **Government of India (GOI)** has announced the **third stimulus package of Rs. 900 Crore** for the **Mission COVID Suraksha- The Indian COVID-19 Vaccine Development Mission**.
- This grant will be provided to the **Department of Biotechnology (DBT)** for Research & Development of Indian COVID-19 vaccines.
- It will be 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.
- It will **provide end-to-end focus** from preclinical development through clinical development and manufacturing and regulatory facilitation for deployment.
- The important objectives of the fund will be **to accelerate 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.
- Its aim is to also **establish clinical trial sites** and strengthen the existing immunoassay laboratories, central laboratories and suitable facilities for animal studies, production facilities and other test facilities to support Covid-19 vaccine development.
- It will support the **development of common harmonized protocols**, training, data management systems, regulatory submissions, internal and external quality management systems and accreditations.

- A key element will be the **development of a suitable target product profile** so that vaccines being introduced through the mission have preferred characteristics applicable to India.

### **Electronic Vaccine Intelligence Network**

- 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.
- Electronic Vaccine Intelligence Network is an **indigenously developed technology** that **digitises vaccine stocks and monitors the temperature of the cold chain** through a smartphone application.
- This is being **implemented under the National Health Mission (NHM) by the Ministry of Health and Family Welfare.**
- eVIN combines **state-of-the-art technology, a strong IT infrastructure and trained human resources** to enable real-time monitoring of stock and storage temperature of the vaccines kept in multiple locations across the country.
- The innovative eVIN 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 across states and UTs.

### **Pneumonia and Diarrhoea Progress Report 2020**

- The Pneumonia and Diarrhoea Progress Report 2020 was released by the **International Vaccine Access Centre (IVAC).**
- It is an **annual report** which tracks progress towards 10 key indicators in the 15 countries with the highest mortality burden of **pneumonia and diarrhea in children under 5.**

### **Key Highlights of The Report**

- **India has improved its vaccination coverage** to prevent deaths of children under five years of age from diseases like pneumonia and diarrhoea.
- 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.
- In 2019, **India completed the “100-day agenda”** — an unprecedented national scale-up of rotavirus vaccine. This landmark vaccine expansion will help protect 26 million children born each year against life-threatening cases of rotavirus diarrhoea.
- Of the 15 focus countries included in the report, **India is one of just four countries that exceeded targets for exclusive breastfeeding.**
- However, India failed to reach all four targets for treatment-
  - Breastfeeding & Immunisation
  - Care-seeking & Antibiotics

- Oral rehydration solution (ORS)
- Zinc supplementation

### **Pneumonia**

- Pneumonia is a **form of an acute respiratory infection** that is most commonly caused by viruses or bacteria.
- Pneumonia can be **bacterial, viral or mycoplasmic**. Vaccines can help prevent pneumonia.
- Pneumonia continues to kill more children under five worldwide than any other single infectious disease, claiming an estimated 800,000 children's lives in 2018.
- Recently, India's first fully indigenously developed vaccine against pneumonia, **Pneumococcal Polysaccharide Conjugate Vaccine**, was approved by the Drug Controller General of India.

### **Diarrhoea**

- Diarrhoea is the passage of 3 or more loose or liquid stools per day, or more frequently than is normal for the individual.
- Diarrhoeal diseases are the second leading infectious cause of death of children under 5, which claimed the lives of 437,000 young children in 2018.

### **India's Initiatives**

- **Social Awareness and Action to Neutralise Pneumonia Successfully (SAANS)**, launched in 2019, aims to **mobilise people to protect children from pneumonia**, and train health personnel and other stakeholders to provide prioritised treatment to control the disease.
- The **Integrated Action Plan for Prevention and Control of Pneumonia and Diarrhoea (IAPPD)** was launched in 2014 to undertake collaborative efforts towards **prevention of diarrhoea and Pneumonia** related under-five deaths.
- Under the **Universal Immunization Programme (UIP)**, immunization is provided **free of cost against 12 vaccine preventable diseases** including Pneumonia.
- **Mission Indradhanush (MI)**, launched in December 2014, aims to **fast track the UIP** and increase the full immunization coverage to children to 90%.

### **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 had **developed neutralising antibodies**.
- Immunity comes from what are known as "**neutralising**" or "**protective**" antibodies.
- **Neutralising antibodies**, like other antibodies, are nothing but **proteins that are created to fight the disease**.
- These are a small subset of the **disease-specific antibodies** that are **generated once an infection has occurred**.
- The neutralising antibodies are important 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.
- The **longevity of the immunity** against disease depends on a variety of factors, including the **quantity of neutralising antibodies generated by a patient**. This is because neutralising antibodies, as also other antibodies, decrease with time. Those with **higher amounts of neutralising antibodies are also better protected**.

- **Vaccine-induced immunity:** Immunity generated by a vaccine is usually expected to be **longer and better**. This is because the vaccine is **designed to trigger a strong immune response with a high fraction of neutralising antibodies**.
- **Serosurveys** only look for the **presence of antibodies in people**. They have been conducted in Delhi, Mumbai, Pune and other cities,

### Global Prevention Coalition (GPC) for HIV Prevention

- The **Union Minister for Health and Family Welfare** digitally addressed the Ministerial meeting of the **Global Prevention Coalition (GPC) for HIV Prevention**. It was hosted by the **Joint United Nations Programme on HIV/AIDS (UNAIDS)** and the **United Nations Population Fund (UNFPA)** on behalf of GPC.
- In 2017, GPC was established to **strengthen and sustain political commitment for primary prevention** by setting a common agenda among key policy-makers, funders and programme implementers.
- The membership of GPC includes the **25 highest HIV burden countries**, **UNAIDS** Cosponsors, donors, and civil society and private sector organizations.
- Member States of GPC had agreed to **reduce new adult HIV infections by 75% at the end of 2020 from 2010 levels**.
- **India's Initiatives**
  - India's unique HIV prevention model is centered around the concept of '**Social Contracting**' through which the **Targeted Interventions (TI)** programme is implemented. Social contracting is broadly understood as **civil society organizations** (which include and serve key populations) **receiving government funding to deliver health prevention, treatment, care and support services**.
  - India had revamped its Targeted Intervention (TI) programme to **focus on hard-to-reach populations** to keep its commitments- People living in prisons and other closed settings were considered as priority populations and interventions launched were gradually scaled up since 2016.
  - The enactment of the **Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017** has provided a legal and enabling framework for safeguarding the human rights of the infected and affected populations.
  - India is committed to achieve the **90-90-90 targets** across the country by the end of the current year and also end the AIDS epidemic as a public health threat by 2030.
  - The **National AIDS Control Programme (NACP)** was launched to slow down the spread of HIV infections so as to **reduce morbidity, mortality and impact of AIDS** in the country. The programme is implemented by the **National AIDS Control Organization (NACO)** under the **Ministry of Health and Family Welfare**.

#### **90-90-90 Strategy**

- It is an ambitious treatment target to help end the AIDS epidemic.
- **Target:** By 2020
  - 90% of all people living with HIV will know their HIV status.
  - 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.

- 90% of all people receiving antiretroviral therapy will have viral suppression.

### **Chapare Virus**

- Researchers from the US **Centers for Disease Control and Prevention (CDC)** have discovered a rare Ebola-like illness called **Chapare Virus**.
- The rare Chapare Virus has been **identified in Bolivia**, with the **first instance being reported in 2003** in a rural province called Chapare, from where it gets its name.
- The **Chapare hemorrhagic fever (CHHF)** is caused by the same arenavirus family that is responsible for illnesses such as the Ebola virus disease (EVD). Viral hemorrhagic fevers are a **severe and life-threatening kind of illness** that can affect multiple organs and damage the walls of blood vessels.
- It is generally **carried by rats** and can be **transmitted through direct contact with the infected rodent**, its urine and droppings, or through contact with an infected person.
- Since there are **no specific drugs to treat the disease**, patients generally receive supportive care such as intravenous fluids, maintenance of hydration, management of shock through fluid resuscitation, sedation, pain relief and transfusions.

### **Ebola**

- **Ebola virus disease (EVD)**, formerly known as Ebola haemorrhagic fever, is a rare but severe, often fatal illness in humans.
- The virus is **transmitted to people from wild animals** and spreads in the human population through **human-to-human transmission**.
- The first EVD outbreaks occurred in remote villages in Central Africa, near tropical rainforests in 1976. However, the 2014–2016 outbreak in West Africa was the largest and most complex Ebola outbreak.
- The Ebola Virus belongs to the **virus family Filoviridae**.

### **Guillain Barre Syndrome**

- In a rare complication, some patients infected with Covid-19 have been found suffering from **Guillain Barre Syndrome (GBS)**.
- Guillain Barre Syndrome is a **very rare autoimmune disorder**. The syndrome can **affect the nerves that control muscle movement** as well as those that transmit pain, temperature and touch sensations.
- GBS is caused by **bacteria or viral infection**. It may also be triggered by vaccine administration or surgery.
- 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
  - An interval of 5-10 days is noticed between the onset of **GBS symptoms** and Covid-19 infection
- The most commonly used treatment for Guillain-Barré syndrome is **intravenous immunoglobulin (IVIG)** and **plasma therapy**.

### **India's Ban On 43 More Apps**

- The **Ministry of Electronics and Information Technology** has blocked 43 new Chinese mobile apps in the country under **Section 69A of the Information Technology Act**.
- The order was issued based on comprehensive reports received from **Indian Cyber Crime Coordination Center, Ministry of Home Affairs**.
- Earlier the government had banned 59 such apps in June 2020 and 118 apps in September 2020 amid security concerns.
- **Section 69A of the Information Technology Act, 2000**
  - This was introduced by an amendment to the Act in 2008. It gives the **Central government the power to block public access** to any information online — whether **on websites or mobile apps**.
  - Under Section 69A, the government can ban a website that threatens **India's defence, its sovereignty and integrity, friendly relations with foreign countries and public order**, after following due procedure.
  - The detailed procedures to do so are listed under the Information Technology (Procedure and Safeguards for Blocking Access of Information by Public) Rules, 2009.
- **Indian Cyber Crime Coordination Centre (I4C)**
  - The scheme to set up I4C was approved in 2018 at an estimated cost of Rs. 415.86 crore, to **deal with all types of cybercrimes in a comprehensive and coordinated manner**.
  - It acts as a **nodal point** in the fight against cybercrime.
  - It identifies the needs of Law Enforcement Agencies (LEAs) and **takes up R&D activities in developing new technologies and forensic tools** in collaboration with academia/research institutes within India and abroad.
  - It aims to **prevent misuse of cyberspace** for furthering the cause of extremist and terrorist groups.

***To read more on Section 69A of the Information Technology Act, please refer to September 2020 Recital***

### **Community Cord Blood Banking**

- Cord blood banking is the process of **collecting the cord blood and extracting and cryogenically freezing its stem cells** and other cells of the immune system for potential future medical use.
  - **Cord blood** (short for umbilical cord blood) is the **blood that remains in the umbilical cord and placenta post-delivery**.
  - This makes cord blood at the time of delivery a rich source of stem cells and other cells of the immune system.
  - It contains special cells called **hematopoietic stem cells** that can be used to treat some types of diseases.
- **Community Cord Blood Banking** is a stem cell banking initiative introduced by **LifeCell in 2017**.
- The purpose of Community Cord Blood Banking is to **ensure easy and rapid access to stem cells** for every Indian without the hurdles of public and private banking models.

- Globally, cord blood banking is recommended as a source of hematopoietic stem cell (derived from bone marrow, peripheral blood, or umbilical cord blood) transplantation for haematological cancers and disorders where its use is recommended.
- **The ICMR does not recommend commercial stem cell banking.**

### **Brain Fingerprinting**

- A **Brain Electrical Oscillation Signature Profiling (BEOSP)** test will be conducted on the accused in Hathras rape case.
- BEOSP, also known as **brain fingerprinting**, is a **neuropsychological method** of interrogation in which the accused's participation in the crime is investigated by **studying their brain's response**.
- The test is carried out via a process known as an **electroencephalogram**, conducted to study the **electrical behaviour of the human brain**.
  - Under this test, the **consent of the accused is first taken** and they are then made to wear caps with dozens of electrodes attached to them.
  - The accused are then **shown visuals or played audio clips related to the crime** to check if there is any triggering of neurons in their brains which then generate brainwaves.
  - The test results are then studied to determine the participation of the accused in a crime.
- **Difference with the polygraph test:**
  - The BEOSP procedure **does not involve a question-answer session** with the accused and is rather a **neuropsychological** study of their brain.
  - In a polygraph test, the accused person's **physiological indicators** are taken into account which includes **blood pressure, pulse rate, respiration and skin conductivity**.
- In 2010, the Supreme Court in the **Selvi versus State of Karnataka case** passed a judgment that **narco analysis, polygraph and brain mapping tests cannot be forced upon any individual without their consent** and the test results cannot be admitted solely as evidence. However, **any information** or material discovered during the tests **can be made part of the evidence**

### **Kerala Fibre Optic Network Project (K-FON) Project**

- Under the project, K-FON project aims to **provide quality internet which will be free of cost** for the poor and at an affordable price for the others.
- The project is **first of its kind among states** and is similar to the Government of India's BharatNet project. It is aimed at **making digital connectivity a basic right**.
- The Project will provide free Internet for more than 20 lakh poor families and over 30,000 government institutions, including offices, schools, IT parks, airports and ports.
- It will not only be a **booster for e-governance**, but also a **money-spinner** by leasing out the high-speed network for a fee to other service providers like cable operators, telecom operators, Internet service providers and content service providers.

### **MQ-9B Sea Guardian Unarmed Drones**

- The Indian Navy has inducted **two MQ-9B Sea Guardian unarmed drones** procured from the **U.S. on lease**. The **Defence Acquisition Procedure (DAP) 2020** has introduced an option for leasing military platforms.

- The Guardian is the **maritime variant of the Predator MQ-9 Unmanned Aerial Vehicle (UAV)**. It has a maximum endurance of 40 hours and a **maximum flying altitude of 40,000 feet**.
- It also has a **3600 maritime surveillance radar** and an optional multimode maritime surface search radar.
- The drone can perform over-the-horizon long-endurance, medium-altitude **Intelligence, Surveillance and Reconnaissance (ISR) missions**.
- **Basic Exchange and Cooperation Agreement for Geo-Spatial Cooperation (BECA)**, which India signed with the U.S, simplified such high- technology cooperation.

#### **Basic Exchange and Cooperation Agreement for Geo-Spatial Cooperation (BECA)**

- The agreement largely pertains to geospatial intelligence and sharing information on maps and satellite images for defence.
- BECA will help India to use the US's advanced geospatial intelligence and **enhance the accuracy of automated systems and weapons like missiles and armed drones**.
- It will give access to topographical and aeronautical data and products that will aid navigation and targeting.

***To read more about Defence Acquisition Procedure (DAP) 2020, please refer to the September 2020 Recital.***

#### **Microwave Weapons**

- The Indian Army has rejected reports that China had used '**microwave weapons**' to **drive Indian soldiers away from their positions in eastern Ladakh**.
- India and China have been locked in a **border standoff at the Line of Actual Control (LAC)** in Ladakh for the last six months.
- "**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.
- The weapon works by **heating the water molecules under the skin**, in the same way as the kitchen appliance, to painful temperatures, forcing people out of the area. The weapon, also **used for crowd control**, can be used to **target up to 0.6 miles away**.
- A number of countries are thought to have developed these weapons to target both humans and electronic systems.
  - 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**". It had apparently deployed such a weapon in Afghanistan, but withdrew it without ever using it against human targets.
- Concerns have been raised on whether they can **damage the eyes, or have a carcinogenic impact in the long term**.

#### **Deep Ocean Mission**

- India will soon launch an ambitious '**Deep Ocean Mission**' that envisages exploration of minerals, energy and marine diversity of the underwater world.
- The mission is expected to cost over ₹4,000 crores and will give a boost to efforts to **explore India's vast Exclusive Economic Zone and Continental Shelf**.

- The multi-disciplinary work will be piloted by the **Ministry of Earth Sciences (MoES)**. Government departments like the DRDO, Department of Biotechnology, ISRO, Council for Scientific and Industrial Research (CSIR) will be stakeholders in this mission.
- The tasks that will be undertaken include **deep-sea mining, survey, energy exploration and the offshore-based desalination** and other necessary technologies.
- These technological developments are funded under an umbrella scheme of the government – called **Ocean Services, Technology, Observations, Resources Modelling and Science (O-SMART)**.
- This mission includes a **desalination plant** powered by tidal energy and a **submersible vehicle** capable of exploring depths of at least 6,000 metres whereas submarines can reach only about 200 metres.
- **Studying climate change, marine biodiversity and survey for compounds like hydrocarbons and minerals** are also part of the deep ocean mission.
- In September 2016, India signed a **15-year contract** with the **International Seabed Authority (ISA)** for exploration of **Poly-Metallic Sulphides (PMS)** in the Indian Ocean.
  - ISA allots the ‘area’ for deep-sea mining.
  - **India was the first country to receive the status of a ‘Pioneer Investor’** in 1987 and was given an area of about 1.5 lakh sq km in the **Central Indian Ocean Basin (CIOB) for nodule exploration**.
- **Environmental Impact**
  - According to the International Union for Conservation of Nature (IUCN), these **deep remote locations can be home to unique species** that have adapted themselves to conditions such as poor oxygen and sunlight, high pressure and extremely low temperatures. **Such mining expeditions can make them go extinct** even before they are known to science.
  - The deep sea’s biodiversity and ecology remain poorly understood, making it difficult to assess the environmental impact and frame adequate guidelines.
  - Additional concerns have been raised about the **noise and light pollution from the mining vehicles and oil spills from the operating vessels**.
- **Economic Viability**

The latest estimate from the ISA says it will be commercially viable only if about three million tonnes are mined per year.

#### **Poly-Metallic Sulphides (PMS)**

- Poly-Metallic Sulphides (PMS) are **precipitates of hot fluids from upwelling hot magma from deep interior of the oceanic crust**, discharged through mineralized chimneys. It contains **iron, copper, zinc, silver, gold, platinum** in variable constitutions.
- These metals can be extracted and **used in electronic devices, smartphones, batteries and even for solar panels**.
- PMS in the Ocean Ridges have attracted worldwide attention for their long term **commercial as well as strategic values**.

#### **International Seabed Authority (ISA)**

- ISA is an autonomous international organisation established under the **1982 United Nations Convention on the Law of the Sea**.
- **Headquarters:** Kingston, Jamaica

- ISA has the mandate to ensure the **effective protection of the marine environment** from harmful effects that may arise from deep-seabed related activities.

### **National Science Film Festival**

- The 10<sup>th</sup> edition of the **National Science Film Festival** was organised in a virtual mode by **Vigyan Prasar**, and the **Tripura State Council of Science and Technology**, Govt. of Tripura.
- VigyanPrasar, an **autonomous agency under the Department of Science and Technology**, has been organizing this festival as a part of its science popularization endeavour.
- The festival offers a unique platform to **showcase the science films made by professionals, amateur and student filmmakers under various themes.**

### **Global Innovation & Technology Alliance**

- The **9<sup>th</sup> Foundation Day of Global Innovation and Technology Alliance (GITA)** was celebrated on 26th November, 2020.
- GITA is a “**not-for-profit**” **Public Private Partnership (PPP)** company. It is promoted jointly by the Technology Development Board (TDB), **Department of Science & Technology (DST)**, Government of India (GoI) and the **Confederation of Indian Industry (CII)**.
- The platform encourages industrial investments in innovative technology solutions by
  - **Mapping technology gaps**
  - Undertaking **expert evaluation of technologies** available across the globe
  - Facilitating **techno-strategic collaborative partnerships** appropriate for Indian economy
  - Connecting industrial and institutional partners for synergistic matchmaking
  - Providing **soft funding for technology development / acquisition / deployment**
- GITA served as a **catalyst for nurturing innovation and industrial R&D** by fostering bilateral academic industry and government collaborations.

### **Fire Detection and Suppression System**

- The **Defence Research and Development Organisation (DRDO)** has developed a **Fire Detection and Suppression System (FDSS)**.
- FDSS is a **fire mitigation system** in buses, which can **detect fires in less than 30 seconds and extinguish it** within a minute.
- The active fire protection system has been developed by a DRDO laboratory- **Centre for Fire, Explosive and Environment Safety (CFEES)**.
- The FDSS for passenger compartment comprises a water tank of 80-litre capacity, a 6.8 kg nitrogen cylinder pressurised to 200 bar and a network of tubing with 16 number of atomizers.
- FDSS for the engine comprises an aerosol generator with which the fire suppression could be achieved within 5 seconds of the system activation.
- The wider rollout of this technology will come as a **big help to check mishaps**, which often result in claiming multiple lives, particularly in sleeper buses.

### Chang'e-5 Mission

- China has launched an unmanned spacecraft under **Chang'e-5 Mission to bring back lunar rocks**, the first attempt by any nation to retrieve samples from the moon in four decades.
- The Chang'e-5 probe, named after the mythical Chinese moon goddess, aims **to shovel up lunar rocks and soil** to help scientists **learn about the moon's origins, formation and volcanic activity on its surface**.
- If successful, **China will be only the third country** to have retrieved samples from the moon, following the United States and the Soviet Union in the 1960s and 1970s.
- The Chinese probe will collect **two kilograms of surface material** in a previously unexplored area known as **Oceanus Procellarum -- or "Ocean of Storms"** -- which consist of a vast lava plain.
- The mission may help answer questions such as **how long the moon remained volcanically active in its interior and when its magnetic field** -- the key to protecting any form of life from the sun's radiation -- **dissipated**.
- Lunar samples can help to unravel some important questions including the **Moon's age, its formation, the similarities and differences between the Earth and the Moon's geologic features**.

### Hayabusa2 Spacecraft

- A Japanese spacecraft, **Hayabusa2**, is expected to reach Earth after a yearlong journey from a distant asteroid, **Ryugu**, with **soil samples and data** that could provide clues to the origins of the solar system.
- Hayabusa2 is an **asteroid sample-return mission** operated by the **Japanese space agency, JAXA**. It carried multiple science payloads that investigated the asteroid surface to inform about the **environmental and geological context** of the samples collected.
- **Asteroid 162173 Ryugu** is a **primitive carbonaceous near-Earth asteroid**, located about 300 million kilometers (180 million miles) from Earth.
- **Carbonaceous asteroids** are expected to preserve the most pristine materials in the Solar System, **a mixture of minerals, ice, and organic compounds** that interact with each other.
- Studying it is expected to provide **additional knowledge on the origin and evolution of the inner planets** and, in particular, the **origin of water and organic compounds** on Earth, all relevant to the origin of life on Earth.

### Leonid Meteor Shower

- The **Leonid meteor shower** is annually active in the month of **November** and it usually peaks around November 17 or 18.
- The Leonids emerge from the **comet Tempel-Tuttle**, which requires 33 years to revolve once around the Sun. These meteors are **bright and among the fastest moving**– travelling at speeds of 71 km per second.
- The Leonid showers include **fireballs**– bright and large meteors that can last longer than average meteors, and **earthgrazers**– meteors which appear close to the horizon with colourful and long tails.
- The Leonids will be **most visible in the Northern Hemisphere**, but can also be seen from the Southern Hemisphere.

- **Meteor showers are named after the constellation they appear to be coming from.** The Leonids originate from the constellation **Leo the Lion**– the groups of stars which form a lion’s mane.
- **Meteor Shower**
  - On its journey around the Sun, the Earth passes through large swathes of cosmic debris.
  - The debris is essentially the **remnants of comets** — great frigid chunks of matter that leave behind dirty trails of rocks and ice that linger long after the comets themselves have passed.
  - As the Earth wades through this cloud of comet waste, the bits of debris create what appears from the ground to be a fireworks display in the sky — known as a meteor shower.
- The showers **peak when the Earth passes through the densest part of the debris cloud.**

**Brown Carbon ‘Tarballs’**

- Nearly 28 per cent of particles collected from the air samples from a research station in the Himalaya-Tibetan Plateau were tarballs, a recent study has found.
- Tarballs are **small light-absorbing, carbonaceous particles** formed due to burning of biomass or fossil fuels that deposit on snow and ice.

**Findings Of The Study**

- **The percentage of the tarballs increased on days of higher levels of pollution** and could contribute to hastening of glacial melt and global warming.
- **Tarballs are formed from brown carbon**, emitted during the burning of fossil fuels. Until now, black carbon was found to be transported long distances by wind to the Himalayan atmosphere; there was not sufficient direct evidence for Primary brown carbon (BrC) in the Himalayan atmosphere.
- BrC co-emitted with black carbon (BC) from biomass burning is an **important light-absorbing carbonaceous aerosol**. The black carbon from the Indo-Gangetic Plain can reach the Himalaya region and influence glacial melting and climatic change.
- Air mass trajectories, satellite detection, and Weather Research and Forecasting model coupled to Chemistry simulations indicated that the **tarballs were emitted from biomass burning in the Indo-Gangetic Plain.**
- The researchers concluded that tarballs from long-range transport can be an important factor in the climatic effect and would correspond to a substantial influence on glacial melting in Himalaya region.
- They suggested future climate models to consider the long-range transport of tarballs to the Himalayas to arrest climate change developments.



**Saffron Bowl Of India Extends To The North East**

- So far, the cultivation of saffron – **the most expensive spice – in India** has been limited to a few areas in Jammu and Kashmir. The Ministry of Science and Technology, is now looking at extending its cultivation to some states in the Northeast.

- A pilot project has yielded successful results in Yangyang village of South Sikkim. It was grown across 1,000 square metres and once the quality of the saffron is assessed, this will be scaled up ten times in Sikkim itself.
- **Pampore region, in India, commonly known as Saffron bowl of Kashmir**, is the main contributor to saffron production.
- **India cultivates about 6 to 7 tonne of saffron annually**, but in order to meet the 100 tonne demand, saffron is imported. A kilo of saffron grown here costs anywhere between **Rs 1.5 to Rs 2 lakh**.
- Saffron has traditionally been associated with the famous Kashmiri cuisine. Its **medicinal values** were considered as part of the rich cultural heritage of Kashmir.
- 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.



### Mink Mass Culling

Denmark government has decided to cull all of the country's over 17-million mink population to stop the spread of a mutated strain of the virus which has been linked to the animals and resulting in a **mutated Covid-19 to humans**.

#### **What Are Minks?**

- Mink are **dark-coloured carnivorous mammals** from the **Mustelidae family**, which also includes weasels, otters and ferrets.
- **There are two species of minks**: European minks and American minks. . They were once classified in the same genus, *Mustela*, but recent research has led to the American mink being classified separately in the Neovison genus, according to the International Union for Conservation of Nature (IUCN).
- **Habitat**: Minks are found near bodies of water, such as streams, lakes or ponds that have nearby tree cover. They make their homes by digging dens or by living in hollow logs. Most minks are loners and typically only come together to breed.
- **Habits**: They are **crepuscular**, which means they are **most active during the dawn and dusk hours**, spending their time marking their territory and looking for prey.
- **Uses**: More than 50 million mink a year are **bred for their fur**, mainly in China, Denmark, the Netherlands and Poland. **Mink oil is used in some medical products** and cosmetics, as well as to treat, preserve and waterproof leather.
- **Conservation status**: While the American mink is in no danger of disappearing, the European mink is listed as **critically endangered by the IUCN**.



#### **Reason For Culling Minks**

- Danish scientists found that **SARS-CoV-2, had mutated in captive minks**, producing a strain of the coronavirus that is not readily stopped by antibodies to the dominant strain of the virus.
- **Denmark is the world's largest mink producer**, with a 15-17 million strong mink population across 1,100 farms. It has experienced extensive spread of SARS-CoV-2 on mink farms since June 2020,

which was followed by **virus transmission between the animals and a “spill back” to humans**. So far, over 207 farms in the country are infected.

- The minks were likely infected following exposure to infected humans. **Minks can not only serve as a reservoir for SARS-CoV-2, but are also capable of spreading it to humans.**
- As per the WHO, the severity, clinical presentation and transmission among those infected are similar to those of other circulating SARS-CoV-2 viruses. This variant, which is referred to as the “**cluster 5” variant, is characterised by a combination of mutations that have not been observed previously.**
- As per preliminary findings, one of the mink-associated variants identified in 12 humans so far may have moderately **decreased sensitivity to neutralising antibodies**. This might mean that **future vaccines may not work against this particular variant of the virus**, which is why it is a risk to public health.

### Travancore Tortoise

- Recently researchers have found Travancore Tortoise in Western Ghats.
- The Travancore tortoise is a medium-sized tortoise **endemic to the mountain ranges of the Western Ghats** in southwestern India.
- **Common Name:** The Travancore tortoise.
- **Scientific Name:** Indotestudo travancorica.
- **Habitat:** It is found in semi-ever-green, evergreen, moist deciduous, and bamboo forests, as well as in rubber and teak plantations, occurring mostly near streams and marshes,
- **Conservation Status**
  - IUCN Red list - Vulnerable;
  - Indian Wildlife (Protection) Act (1972): Schedule IV.
  - CITES: Appendix II.
- **Characteristics:**
  - Travancore Tortoises are **omnivorous**; their diet encompasses grasses to mollusks and they occasionally scavenge on dead animals.
  - Their heads are a creamy white, and become pinkish red during breeding season.
  - The brown shell with black blotches tricks observers into seeing only dry leaves.
  - It has an acute sense of hearing. In the dry season, crisp leaves crackling loudly underfoot gave the creatures plenty of time to hide.
- **Threats:** The major threats to this species are **hunting and habitat loss**. Conservation measures should focus on protection, identification of crucial tortoise habitats, and increasing awareness among local communities



### Vulture Action Plan 2020-25

Union Minister for Environment, Forests and Climate Change has launched a Vulture Action Plan 2020-25 for the conservation of vultures in the country.

### **Vulture Conservation Plan 2020-25- Features**

- While the ministry has been carrying out a conservation project for vultures since 2006, the plan is to now extend the project to 2025 to **not just halt the decline but to actively increase the vulture numbers in India.**
- The action plan was approved by the National Board for Wildlife (NBWL) on October 5, 2020.
- The new plan has laid out strategies and actions to stem the decline in vulture population, especially of the three Gyps species:
  - Oriental white-backed vulture (*Gyps bengalensis*).
  - Slender-billed vulture (*Gyps tenuirostris*).
  - Long-billed vulture (*Gyps indicus*).
- The plan includes instituting a system with the help of Drugs Controller General of India (DCGI) which **automatically removes a drug from veterinary use, such as Diclofenac.** This will ensure preventing the poisoning of principal food of vultures. Just 0.4-0.7% of animal carcasses, contaminated with Diclofenac, was sufficient to decimate 99% of vulture population.
- Under the 2020-25 plan, the ministry will also work for **conservation breeding programme of Red Headed Vulture and Egyptian Vulture,** and help states in establishing at least one **'Vulture Safe Zone'** in each state for the conservation of the remnant population.
- The plan also envisages to carry out coordinated nation-wide vulture count to get a more accurate estimate of the size of vulture population. A **database will be created on emerging threats** to vulture conservation including collision and electrocution.

### **Present Status Of Vultures In India**

- There are **nine recorded species of vultures in India** — the Oriental white-backed, long-billed, slender-billed, Himalayan, red-headed, Egyptian, bearded, cinereous and the Eurasian Griffon.
- **Vulture numbers saw a steep slide — as much as 90 per cent** in some species — in India since the 1990s is one of the most drastic declines in bird populations in the world.
- Between the 1990s and 2007, numbers of— the Oriental white-backed, long-billed and slender-billed vultures — crashed massively with 99 per cent of the species having been wiped out. The number of red-headed vultures now, declined by 91% while the Egyptian vultures by 80%.
- The major cause of mortality of vultures was found to be the veterinary **non-steroidal anti-inflammatory drug 'Diclofenac'**, given to cattle in pain and inflammation. Diclofenac was found to be extremely toxic to vultures and causes renal failure.

### **Conservation Efforts By The Government**

- The MoEFCC released the **Action Plan for Vulture Conservation 2006** with the DCGI banning the veterinary use of diclofenac.
- The Central Zoo Authority (CZA) and Bombay Natural History Society (BNHS) also established the **Vulture Conservation Breeding Programme,** which has been successful and had three critically-endangered species bred in captivity for the first time.
- **Financial support for vulture conservation** to various States for saving critically endangered species and habitats of centrally sponsored scheme – Development of Wildlife Habitats.
- **Eight Vulture Conservation Breeding Centres (VCBCs)** were established in various States.

- For protection and conservation of vultures in the country, the government has also **upgraded the status of White-backed, Long-billed and Slender-billed vultures from Schedule IV to Schedule I of the Wild Life (Protection) Act, 1972.**

#### **IUCN Status of Vultures in India**

- **Critically Endangered-** Oriental white-backed, long-billed and slender-billed vultures and red-headed vultures.
- **Endangered-** Egyptian vulture.
- **Near Threatened-** Himalayan, bearded and cinereous vultures.
- **Least Concerned-** Eurasian Griffon.

#### **New Ramsar Sites**

- The **Lonar lake in Maharashtra** and **Sur Sarovar, also known as Keetham lake, in Agra**, have been declared as Ramsar sites, a conservation status conferred by International Ramsar Convention on Wetlands.
- Recently **Kabartal**, a freshwater marsh of Bihar and **Asan Barrage** in Doon Valley of Uttarakhand were also designated as Ramsar Sites.

#### **Lonar lake**

- The Lonar lake, situated in the **Deccan Plateau's volcanic basalt rock**, was created by the impact of a meteor 35,000 to 50,000 years ago.
- The lake is part of **Lonar Wildlife Sanctuary**. It is the **second Ramsar site in the state** after **Nandur Madhmeshwar Bird Sanctuary** in Nashik district, which was declared a Ramsar site in January 2020.
- The water in the lake is highly saline and alkaline, containing special microorganisms like anaerobes, Cyanobacteria and phytoplankton.
- Outside the lake, there is a considerable diversity of plants and animals. Inhabiting the site are 160 species of birds including the vulnerable Asian woolly neck and common pochard, 46 species of reptiles, and 12 species of mammals including the iconic grey wolf.



#### **Sur Sarovar**

- Sur Sarovar or Keetham Lake is a human-made reservoir in Uttar Pradesh.
- It was **originally created to supply water to the city of Agra in summer**. The wetland soon became an important and rich ecosystem.
- The site's patchwork of different habitat types provides refuge to resident and migratory birds, and more than 60 species of fish. Threatened species include the vulnerable **greater spotted eagle, sarus crane and catfish**.
- Sur Sarovar is important for bird species which migrate on the **Central Asian flyway** and over 30,000 water birds visit the reservoir annually.

#### **Benefits of including in Ramsar Sites list**

- **Increased publicity and prestige** for Lonar wetlands and Sur Sarovar.

- **Access to aid** through grant fund.
- **Facilitate development** of lake, policies for its wise use.
- **Encourage international cooperation** and expert advice on problems of Lonar wetland.
- **Help ensure survival of representative natural eco-systems** as well as rare and endemic species.

*To read more about Ramsar sites, refer October Recitals.*

### **India's First Green Energy Convergence Project**

Energy Efficiency Services Limited (EESL) 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 of Goa.

#### **What Is Green Energy Convergence Project?**

- It is the country's first project to generate green energy for rural and agriculture consumption in the state of Goa and is in line with the International Solar Alliance, a GOI initiative.
- It aims to **connect sectors like Solar Energy, Energy Storage and LED lights** to enable decarbonisation and provide access to affordable energy.

#### **Highlights Of The Project**

- EESL and DNRE will carry-out the feasibility studies and subsequent implementation of decentralized solar energy projects.
- EESL shall implement solar projects as listed below:
  - **Establish 100 MW of decentralized ground-mounted Solar Power projects** on government lands for agricultural pumping.
  - **Replace nearly 6,300 agricultural pumps** with Bureau of Energy Efficiency (BEE) star rated energy efficient pumps.
  - **Distribute around 16 Lakh LED bulbs** for rural domestic households.
  - To provide clean power at affordable rates in the state, EESL will install solar projects in a first of its kind large scale programme where vacant or unused land provided by the Gram Panchayats or the electricity board will be utilized.

#### **Benefits Associated With The Project**

- **It will promote the usage of renewable energy sources**, especially for agricultural and rural power consumption in Goa.
- **It will also contribute to overall sustainability** by deploying energy-efficient pumping and lighting.
- The solar power plant will be installed near the substation, improving the health of distribution companies (DISCOMs) to supply power during the day time, reducing transmission and distribution losses. The project will accrue **savings of INR 2,574 crores to Goa over a period of 25 years.**

#### **Additional Information**

##### **About EESL**

- EESL is a joint venture of National Thermal Power Corporation Limited (NTPC) Limited, Power Finance Corporation, Rural Electrification Corporation and POWERGRID.
- It was set up **under the Ministry of Power** to facilitate the implementation of energy efficiency projects.

- EESL is a Super Energy Service Company (ESCO) that seeks to unlock energy efficiency market in India, estimated to at Rs. 74,000 crore that can potentially result in energy savings of up to 20% of current consumption.

### **UNESCO Global Geo Park**

Indian National Trust for Art and Cultural Heritage is putting efforts to get recognition of a **UNESCO Global Geo Park for Visakhapatnam** consisting of **Erra Matti Dibbalu (red sand dunes)**, natural rock formations, Borra Caves and volcanic ash deposits said to have originated from the volcanic eruption of Toba in Indonesia 73,000 years ago near Araku.

#### **What Is A UNESCO Global Geopark?**

- UNESCO Global Geoparks are **single, unified geographical areas** where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.
- Their **bottom-up approach** of combining conservation with sustainable development while involving local communities is becoming increasingly popular.
- Globally, geo parks are **sustained through geo tourism activities** like excursions, Nature trails, guided tours, hiking and academic meets. Adequate signage and interpretation centres are set up in the area to create awareness among tourists.
- While there are 147 UNESCO Global geo parks spread across 41 countries, **India is yet to have one of its own.**

#### **Erra Matti Dibbalu**

- Among the 34 notified National Geological Heritage Monument Sites of India by the Geological Survey of India, is the Erra Matti Dibbalu or **coastal red sediment mounds** located between Visakhapatnam and Bheemunipatnam.
- Such sand deposits have been reported only from three low latitude tropical regions in South Asia — the **Teri Sands of Tamil Nadu, the Erra Matti Dibbalu in Andhra Pradesh and Red Coastal Sands of Sri Lanka.**
- It was **formed around 12,000 years ago by land-sea interaction** and comprises a mixture of sand (40-50%), silt and clay (another 50%) with oxidation of garnets imparting the unique red colour. The width of the dunes vary from 200 metres to two kilometres, spread across five kilometres along the coast.



#### **Need For Protection:**

- The red sand sediments of Erra Matti Dibbalu are unconsolidated and loose. **Every monsoon the sediments are washed away**, turning the sea a bright red.
- Further **degradation due to human interference** such as digging, climbing, littering are affecting their stability and exacerbating erosion. Also the red sands were being **exploited for construction activity.**
- **The way forward** is to engage the local community in becoming the custodians of this heritage site by making them understand the geological value. A gate, proper security, illumination, tourist safety team and guides are some of the measures that should be implemented.

### **Ecologically Sensitive Area (ESA)**

A Kerala-based NGO for farmers moved the Supreme Court to declare unconstitutional a draft notification of the Centre demarcating 56,825 sq km spread across six States as 'Western Ghats Ecologically Sensitive Area'.

#### **What Are ESAs?**

- An ecologically sensitive area is one that is protected by the government given the sheer number of species, plants and animals endemic to the region. **According to the Environment (Protection) Act, 1986, the government can prohibit industrial operations** such as mining, sand quarrying and building thermal power plants in sensitive areas.
- The definition offered by the Ministry of Environment, Forest and Climate Change (MoEF): "An ecological sensitive area is a bio-climatic unit (as demarcated by entire landscapes) in the Western Ghats wherein **human impacts have locally caused irreversible changes in the structure of biological communities** (as evident in number/ composition of species and their relative abundances) and their natural habitats."
- The Western Ghats were declared an **ecological hotspot in 1988**. To categorise an area as ecologically sensitive, the government looks at topography, climate and rainfall, land use and land cover, roads and settlements, human population, biodiversity corridors and data of plants and animal species.

#### **Kasturirangan Committee Report**

- The MoEF notification is based on findings of a High-Level Working Group, also known as the Kasturirangan committee. The committee had said that the **natural landscape of the Ghats constitutes only 41 per cent, or which 90 percent or 60,000 square kilometres were identified as ecologically sensitive**.
- The committee suggested **phasing out current mining projects within five years**, or when mining leases were about to expire. It recommended that infrastructure and development projects be subject to environmental clearance, and that villages in ESA be involved in decision making regarding future projects.
- As the Kasturirangan reports was contended by all states, **the government's new notification lists the 56,825 square kilometres as ecologically sensitive**; 20,668 square kilometres in Karnataka, 17,340 sq kms in Maharashtra, 9,993 sq kms in Kerala, 6,914 sq kms in Tamil Nadu, 1,461 sq kms in Goa and 449 sq km in Gujarat.

#### **The Issue At Hand**

- The plea filed by an NGO Karshaka Shabdham sought directions to the Centre and Kerala to not implement the recommendations of the Kasturirangan Committee.
- NGO also sought that the 2018 notification of the ministry be declared as unconstitutional as it **violates the right to life and livelihood of farmers guaranteed under Article 21 of the Constitution**. The notification once implemented in Kerala would affect the livelihood of lakhs of farmers as their agricultural lands would come under the demarcated ESA.
- The plea said the **Centre had wrongly branded people** who had been residing in the Western Ghats area, following government norms on agricultural practices, as the "**destroyers of the biodiversity and agents of ecological damage.**"
- The **Kasturirangan committee used remote sensing and aerial survey methods** for area demarcation which fail to address the issues in reality.

- As per this report, **powers would vest with the bureaucrats and not with forest officials** and village level officers, and many areas addressed under the report are agricultural lands. Hence, there is a greater probability of depletion of agriculture with displacement.
- The rationale behind issuing the draft notification, **without the inclusion of the measures to incentivise green growth advocated by the Kasturirangan committee** and those proposed in the National Agroforestry Policy, 2014, is questionable.

### **Deemed Forests**

Karnataka Forest Minister announced 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.

#### **What Are Deemed Forests?**

- 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.
- Supreme Court in its order said that “The word ‘forest’ must be understood according to its dictionary meaning. This description **covers all statutorily recognized forests, whether designated as reserved, protected or otherwise** for the purpose of Section 2 (1) of the **Forest Conservation Act**,”. “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”.
- Karnataka government after the Supreme Court order identified ‘deemed forests’ as **“land having the characteristic of forests irrespective of the ownership”**.
- Reports by expert committees in 1997 and 2002 identified 43.18 lakh hectares of forest land for conservation in Karnataka, which included 33.23 lakh hectares notified forest area as per forest records and **9.94 lakh hectares ‘deemed forests’**.

#### **Reason For De-Classification:**

- In 2014, the then government decided to have a relook at the categorisation of forests. It said some of the **‘statutory forests’ had been wrongly classified as ‘deemed forest’** by the expert committee constituted after the Supreme Court order.
- The government also said that where the dictionary definition of forests was applied to identify thickly wooded areas as deemed forests, **a well-defined scientific, verifiable criteria was not used, resulting in a subjective classification** of areas as deemed forests.
- The subjective classification in turn resulted in **conflicts between the Forest Department and other departments** like Revenue, Irrigation, Public Works and Energy.
- The land was **randomly classified as deemed forest by officials**, causing hardship to farmers in some areas. There is also a **commercial demand for mining** in some regions designated as deemed forests.
- Preservation of forest areas in India under the Forest Conservation Act, 1980 has been continuously monitored by the Supreme Court since the Godavarman case judgment in 1996. The state

government must obtain clearances from the Supreme Court for affecting changes to land classified as deemed forests since the verdict.

### **Ganga Utsav 2020**

- A three-day virtual 'Ganga Utsav 2020' aimed at spreading awareness about river Ganga and the need to keep the river clean and rejuvenated is being organised in New Delhi.
- The event also marks the **12th anniversary of Ganga being accorded the status of National River.**

### **High Biodiversity in Ganga River**

- Wildlife Institute of India (WII) in its survey of the entire main stem of the Ganga river (the main river without its tributaries), has found that **49% of the river has high biodiversity and that biodiversity sightings, including of the Gangetic Dolphin and otters**, have increased in the river. This indicates reducing pollution levels and a healthier state of the river.
- The study was initiated by WII on behalf of the National Mission for Clean Ganga, one of the flagship projects undertaken by the Ministry of Jalshakti. This is the **first study ever done in the country on the entire river**, and the first also of all its biodiversity.
- **Ten per cent of the high biodiversity areas fall alongside national parks and sanctuaries** such as Rajaji national park in Uttarakhand, Hastinapur wildlife sanctuary in UP and Vikramshila gangetic Dolphin sanctuary in Bihar.
- Rapid biodiversity of the Ganga had revealed that the distribution and density of key aquatic species such as the Gangetic Dolphin, the gharial and the mugger had in earlier years, significantly reduced due to loss of suitable habitat conditions, and change in the river's morphology due to the **construction of dams and barrages, bank alteration, agriculture and sand mining.**
- The **Ganga and its tributaries flow through 11 states** and cover 26.3 per cent of the country's total geographical area. But its main stem flows through five states — Uttarakhand, UP, Bihar, Jharkhand and West Bengal.

### **Project Lion**

- Six new sites apart from **Kuno-Palpur Wildlife Sanctuary** have been identified under Project Lion.
- The **six new sites identified for possible lion relocation** in the future include:
  - **Madhav National Park**, Madhya Pradesh
  - **Sitamata Wildlife Sanctuary**, Rajasthan
  - **Mukundra Hills Tiger Reserve**, Rajasthan
  - **Gandhi Sagar Wildlife Sanctuary**, Madhya Pradesh
  - **Kumbhalgarh Wildlife Sanctuary**, Rajasthan
  - **Jessore-Balaram Ambaji WLS** and adjoining landscape, Gujarat
- However, while the proposal has identified these new sites, the Gujarat Forest Department has still not carried out the **Supreme Court order of 2013 directing the state to relocate lions to the Kuno-Palpur Wildlife Sanctuary.**

### **About Project Lion**

- The programme has been launched for the **conservation of the Asiatic Lion**, whose last remaining wild population is in Gujarat's Asiatic Lion Landscape (ALL).

- Project Lion will entail **habitat development, engage modern technologies in lion management and address the issues of disease in lion** and its associated species through advanced world class research and veterinary care.
- It will also **address human-wildlife conflict** and will be inclusive involving local communities living in the vicinity of lion landscape.
- The motive behind finding a relocation site for the species is because the **population in Gir has low genetic diversity, making it vulnerable to threats of extension** from epidemics.

#### **Asiatic Lion**

- **Conservation Status:** Listed in Schedule I of Wildlife (Protection) Act 1972, in Appendix I of CITES and as Endangered on IUCN Red List.
- **Characteristics:** Asiatic lions are slightly smaller than African lions. The most striking morphological character is a longitudinal fold of skin running along belly of Asiatic Lions.
- **Habitat and Distribution:** At present, Gir National Park and Wildlife Sanctuary in Gujarat is the only abode of the Asiatic lion. They live in a compact tract of dry deciduous forest and open grassy scrublands in southwestern part of Saurashtra region of Gujarat.
- According to the latest count, the **lion population has registered an increase of 25 per cent in the last five years and now stands at 674.**

#### **Smog**

The air quality of Delhi, Gurugram, and Noida continued to be in the 'severe' category, according to the Central Pollution Control Board (CPCB) data. Severe Smog levels affects 'healthy people' and 'seriously impacts' those with existing diseases.

#### **What Is Smog?**

- The term 'smog' was first coined by Dr Henry Antoine des Voeux in his paper, Fog and Smoke, in July 1905, after **a blanket of smoke and fog was noticed over London in the early 1900s.**
- **Smog is a harmful mixture of fog, dust and air pollutants such as nitrogen oxides, volatile organic compounds,** etc. which combine with sunlight to form a dense layer of ground-level ozone. Ozone present high in the atmosphere is good, but when nearer to the ground, it can cause irritating health effects.
- Smog can be **caused by:**
  - Large amounts of coal-burning in an area.
  - Slash-and-burning of crops (a major source in Delhi).
  - Smog-forming pollutants generate from automobile exhausts, power plants, fireworks, even paint, hairspray, charcoal starter fluid, and plastic popcorn packaging.
- The formation of smog is also **closely linked with temperature, sunshine, and calm winds.** On a warmer day, smog can form more quickly than otherwise.

#### **Effects of Smog**

- Ironically, smog often has a **worse effect on places farther away from its source** than where it generates, as the intensity of its composition thickens the more it travels with the winds and reacts with chemicals in the air.
- **Smog causes inflamed lungs,** and inflamed lungs, in turn, secrete interleukin-6 which can cause blood clots in people cardiac and respiratory disorders, leading to heart attacks or strokes.

- It can **decrease lungs' working capacity**, leading to shortness of breath, chest pain, wheezing, coughing, discomfort in deep-breathing etc.
- It can **greatly decrease the UV radiation**, leading to low production of important elements like Vitamin D.
- Smog can lead to major accidents on the road because of the low-visibility it causes.

### **Climate Change Knowledge Portal**

- Ministry of Environment, Forest and Climate Change, has launched the “India Climate Change Knowledge Portal”.
- The portal will be a “**single point information resource**” which provides information on the different climate initiatives taken by various Line Ministries enabling users to access updated status on these initiatives.
- The portal **captures sector-wise adaptation and mitigation actions** that are being taken by the various line Ministries in one place including updated information on their implementation.
- **The eight major components** included in the knowledge portal are:
  - India’s Climate Profile.
  - National Policy Framework.
  - India’s NDC goals
  - Adaptation Actions.
  - Mitigation Actions.
  - Bilateral and Multilateral Cooperation.
  - International Climate Negotiations.
  - Reports & Publications.
- The knowledge portal will help in **disseminating knowledge among citizens** about all the major steps Government is taking at both national and international levels to address climate change issues.

### **TX2 Conservation Excellence Award for 2020**

- A 1,500-sq. km. conservation area straddling the India-Bhutan border has received the TX2 Conservation Excellence Award for 2020. The recognition was for the Transboundary Manas Conservation Area or TraMCA comprising the 500 sq. km. **Manas National Park in Assam and the 1,057-sq. km. Royal Manas National Park in Bhutan.**
- The award was given to TraMCA for efforts to increase the tiger population. The number of the striped cat in the Indian Manas **increased from nine in 2010 to 25 in 2018 while that in the Bhutan Manas more than doubled from 12 in 2008 to 26 in 2018.**

### **TX2 Conservation**

- TX2 stands for “Tigers times two”, signalling the goal to double the population of wild tigers by 2022.
- India and Bhutan are among 13 countries working towards TX2, a goal that the **World Wildlife Fund (WWF)** had set through the Global Tiger Initiative, Global Tiger Forum and other critical platforms.
- The TX2 awards include a **financial grant to assist ongoing conservation**. The award recognises a site that has achieved excellence in two or more of five themes: Tiger and prey population monitoring and research (tiger translocation/prey augmentation); effective site management;

enhanced law enforcement, protection and ranger welfare improvement; community-based conservation, benefits and human-wildlife conflict mitigation and habitat and prey management.

### **Willow Warbler**

- One of the longest migrating small bird, Willow Warbler spotted for the first time in Kerala's Punchakkari.
- **Bird family:** Warblers.
- **Habitat:** It is usually seen in European and Palearctic regions and they migrate to sub Saharan Africa during early winter.
- **Characteristics**
  - Weighing around 10gm, the long wing feathers used to migrate a long distance makes it peculiar.
  - Warblers are one of the most difficult groups of birds to identify in the field for their striking resemblance to each other, small size and change in plumage twice a year.
- **IUCN Status:** Least Concern.
- 17 species of warblers have been recorded from Kerala and the willow warbler forms the 18th warbler and 533rd species of bird to be recorded from the State.

