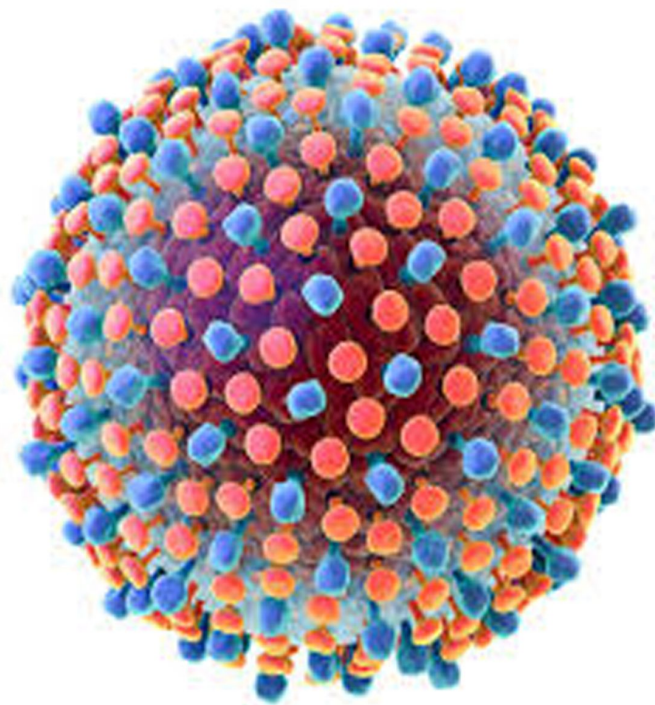


# IAS

# NOVEMBER 2020

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A Magazine by

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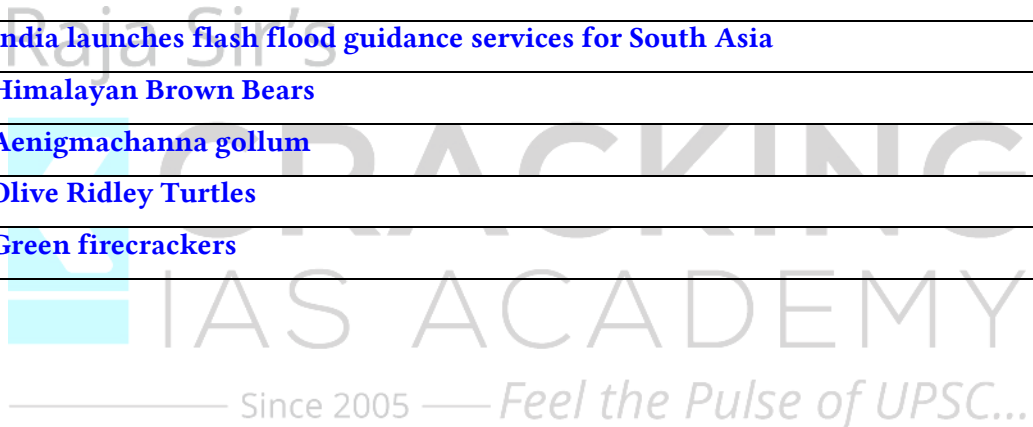
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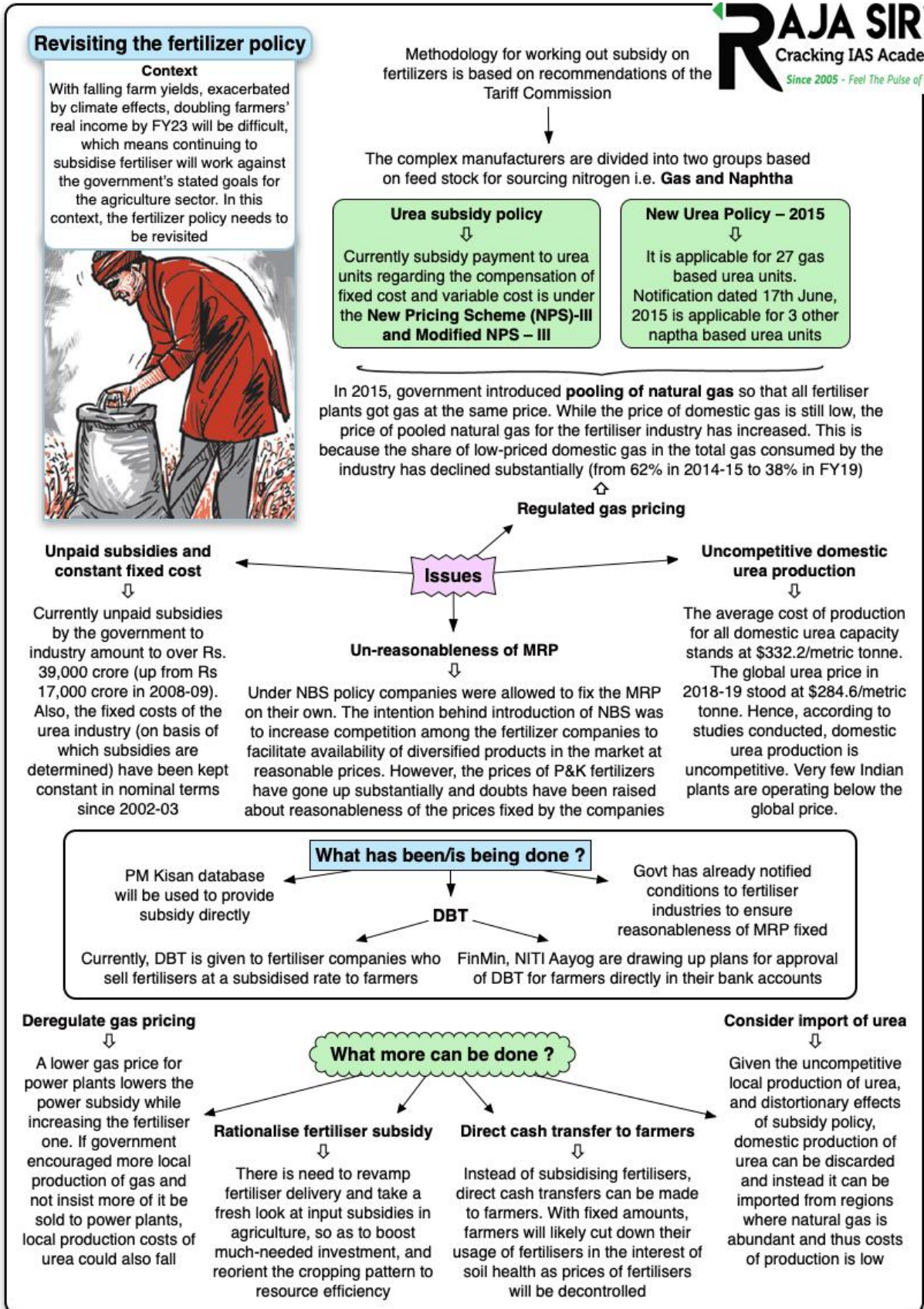
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What is fertiliser subsidy? How does it work?



### What is fertiliser subsidy? How does it work?

Farmers buy fertilisers at MRPs (maximum retail price) below their normal supply-and-demand-based market rates or what it costs to produce/import them.

The MRP of neem-coated urea, for instance, is fixed by the government at Rs 5,922.22 per tonne, whereas its average cost-plus price payable to domestic manufacturers and importers comes to around Rs 17,000 and Rs 23,000 per tonne, respectively. The difference, which varies according to plant-wise production cost and import price, is footed by the Centre as subsidy.

The MRPs of non-urea fertilisers are decontrolled or fixed by the companies. The Centre, however, pays a flat per-tonne subsidy on these nutrients to ensure they are priced at “reasonable levels”. The per-tonne subsidy is currently Rs 10,231 for di-ammonium phosphate (DAP), Rs 6,070 for muriate of potash (MOP) and Rs 8,380 for the popular ‘10:26:26’ complex fertiliser, with their corresponding average MRPs at Rs 24,000, Rs 17,500 and Rs 23,500 per tonne, respectively.

Decontrolled fertilisers, thus, retail way above urea, while they also attract lower subsidy.

#### **How is the subsidy paid and who gets it?**

The subsidy goes to fertiliser companies, although its ultimate beneficiary is the farmer who pays MRPs less than the market-determined rates. Companies, until recently, were paid after their bagged material had been dispatched and received at a district’s railhead point or approved godown.

From March 2018, a new so-called direct benefit transfer (DBT) system was introduced, wherein subsidy payment to the companies would happen only after actual sales to farmers by retailers. Each retailer – there are over 2.3 lakh of them across India – now has a point-of-sale (PoS) machine linked to the Department of Fertilisers’ e-Urvarak DBT portal. Anybody buying subsidised fertilisers is required to furnish his/her Aadhaar unique identity or Kisan Credit Card number. The quantities of the individual fertilisers purchased, along with the buyer’s name and biometric authentication, have to be captured on the PoS device. Only upon the sale getting registered on the e-Urvarak platform can a company claim subsidy, with these being processed on a weekly basis and payments remitted electronically to its bank account.

#### **What was the new payment system’s underlying purpose?**

The main motive is to curb diversion. This is natural with any under-priced product, more so in urea, whose basic MRP (excluding taxes and neem-coating cost) has been raised by hardly 11% from Rs 4,830 to Rs 5,360 per tonne since April 2010. The same period – from when all other fertilisers were decontrolled – has seen the per-tonne MRP of DAP rise from Rs 9,350 to Rs 24,000, while similarly going up for MOP (Rs 4,455 to Rs 17,500) and ‘10:26:26’ (Rs 7,197 to Rs 23,500).

Being super-subsidised, urea is always prone to diversion for non-agricultural use – as a binder by plywood/particle board makers, cheap protein source by animal feed manufacturers or adulterant by milk vendors – apart from being smuggled to Nepal and Bangladesh. The scope for leakage was more in the



earlier system, right from the point of dispatch till the retailer end. With DBT, pilferage happens only at the retailer level, as there is no subsidy payment till sales are made through POS machines and subject to the buyers' biometric authentication.

### **What is the next step being proposed?**

At present, the Centre is following a "no denial" policy. Anybody, non-farmers included, can purchase any quantity of fertilisers through the PoS machines. That obviously allows for bulk buying by unintended beneficiaries, who are not genuine or deserving farmers. While there is a limit of 100 bags that an individual can purchase at one time, it does not stop anyone from buying any number of times. One plan under discussion is to cap the total number of subsidised fertiliser bags that any person can buy during an entire kharif or rabi cropping season. This, it is expected, would end even retail-level diversion and purchases by large buyers masquerading as farmers.

### **What is the fertiliser requirement of a typical farmer?**

It depends on the crop. A farmer growing irrigated wheat or paddy may use about three 45-kg bags of urea, one 50-kg bag of DAP and half-a-bag (25 kg) of MOP per acre. A total of 100 bags would easily cover the seasonal requirement of a 20-acre farmer. And that could possibly be a reasonable cap to impose; those wanting more can well afford to pay the unsubsidised rates for the extra bags.

### **How much subsidy does a farmer really get per acre?**

For three bags urea, one bag DAP and half-a-bag MOP per acre, the farmer would spend a total of Rs 2,437 at existing MRPs. The corresponding subsidy value – at an average of Rs 13,000 per tonne (Rs 585/bag) for urea, Rs 511.55/bag for DAP and Rs 303.5/bag for MOP – will add up to Rs 2,418.3 per acre.

But then, farmers are also taxed on other inputs. Take diesel, where the incidence of excise and value added tax is Rs 42.19 on a litre retailing at Rs 70.46 in Delhi. On 30 litres of average per-acre consumption for paddy or wheat, that will be nearly Rs 1,266. So, for every Re 1 spent on fertiliser subsidy, more than half is recovered as diesel tax.

In addition, farmers pay goods and service tax (GST) on inputs, ranging from 12% on tractors, agricultural implements, pumps and drip/sprinkler irrigation systems to 18% on crop protection chemicals. Fertiliser itself is taxed at 5%. And since there's no GST on farm produce, they cannot claim any input tax credit on their sales, unlike other businessmen.

### **What's the way forward?**

The time has come to seriously consider paying farmers a flat per-acre cash subsidy that they can use to purchase any fertiliser. The amount could vary, depending on the number of crops grown and whether the land is irrigated or not. This is, perhaps, the only sustainable solution to prevent diversion and also encourage judicious application of fertilisers, with the right nutrient (macro and micro) combination based on proper soil testing and crop-specific requirements.

## ECONOMY

### 1.1 Government Borrowing

#### Why in News?

The Finance Ministry has said that the government will borrow Rs 4.34 lakh crore in the second half of the current fiscal to meet its expenditure requirement amid COVID-19 crisis afflicting the country's economy. With this, the government will stick to **the revised borrowing target for the current fiscal**.

#### What was the target?

The Centre had revised the borrowing target to Rs 12 lakh crore in May against Rs 7.8 lakh crore approved in the Budget 2020-21.

#### What is the fiscal deficit target?

The Budget has pegged fiscal deficit at **3.5 per cent for the current fiscal**, down from 3.8 per cent of the GDP in the last financial year.

Last fiscal, the government had to resort to the **"escape clause" in the Fiscal Responsibility and Budget Management (FRBM) Act** for deviating from fiscal deficit target to 3.8 per cent from the Budget estimate of 3.3 per cent for 2019-20.

#### What is an escape clause?

The "escape clause" allows the government to breach its fiscal deficit target by 0.5 percentage points at times of severe stress in the economy, including periods of structural change and those when growth falls sharply.

#### What is government borrowing?

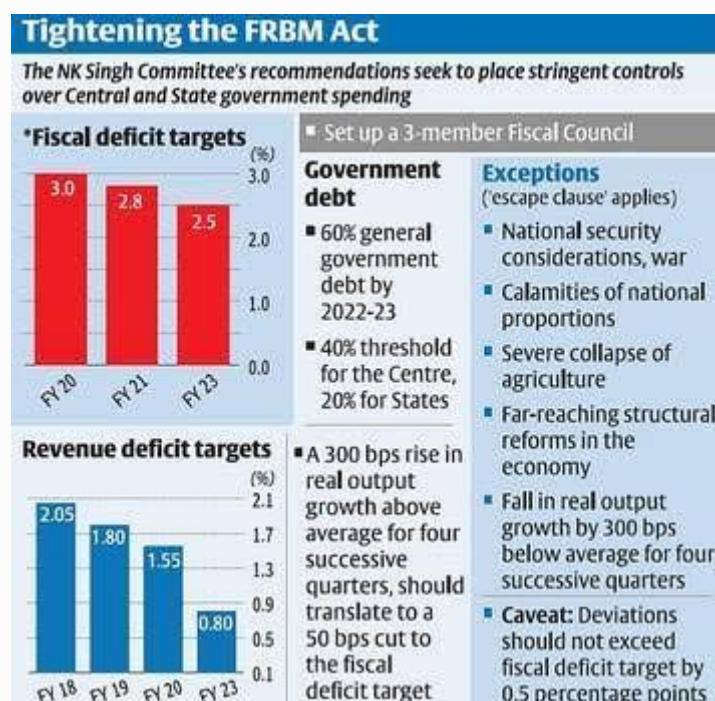
Borrowing is a loan taken by the government and falls under **capital receipts** in the Budget document.

Usually, Government borrows through issue of government securities called **G-secs and Treasury Bills**.

### How does increased government borrowing affect govt finances?

Bulk of government's fiscal deficit comes from its interest obligation on past debt.

1. If the government resorts to larger borrowings, more than what it has projected, then its interest costs also go up risking higher fiscal deficit. That hurts government's finances.
2. Larger borrowing programme means that the public debt will go up and especially at a time when the GDP growth is subdued, it will lead to a higher debt-to-GDP ratio.



## 1.2 Additional Tier-1 Bonds

### Context:

Securities and Exchange Board of India has tightened its regulations of additional tier-1 bonds or AT-1 bonds and ensured that these risky instruments are less accessible to retail investors.

### Changes introduced:

1. Banks can issue these bonds only on electronic platform.
2. Only institutional investors could subscribe to them.
3. There shall be a minimum allotment size and trading lot size of ₹1 crore.

(An institutional investor is a company or organization that invests money on behalf of other

people. Mutual funds, pensions, and insurance companies are examples.)

### What are Additional Tier-1 bonds?

Under the **Basel III framework**, banks' regulatory capital is divided into **Tier 1 and Tier 2 capital**.

**Tier 1 capital** is subdivided into **Common Equity (CET) and Additional Capital (AT1)**.

**AT1 bonds** are a type of **unsecured, perpetual bonds** that banks issue to shore up their core capital base to meet the Basel-III norms.

#### Key features:

1. These have **higher rates than tier II bonds**.
2. These bonds have no maturity date.
3. The issuing bank has **the option to call back** the bonds or repay the principal after a specified period of time.
4. The attraction for investors is **higher yield** than secured bonds issued by the same entity.
5. **Individual investors too can hold these bonds**, but mostly high net worth individuals (HNIs) opt for such higher risk, higher yield investments.
6. Given the higher risk, **the rating for these bonds is one to four notches lower than the secured bond series** of the same bank.

#### However, it has a two-fold risk:

1. First, the issuing bank has the discretion to skip coupon payment. Under normal circumstances it can pay from profits or revenue reserves in case of losses for the period when the interest needs to be paid.
2. Second, the bank has to maintain a common equity tier I ratio of 5.5%, failing which the bonds can get written down. In some cases there could be a clause to convert into equity as well.

Given these characteristics, AT1 bonds are also referred to as **quasi-equity**.

#### Differences between Common Equity (CET) and Additional Capital (AT1):

Equity and preference capital is classified as CET and perpetual bonds are classified as AT1.

1. By nature, CET is the equity capital of the bank, where returns are linked to the banks' performance and therefore the performance of the share price.
2. However, AT1 bonds are in the nature of debt instruments, which carry a fixed coupon payable annually from past or present profits of the bank.

### 1.3 Long Term Repo Operation

#### Context:

The Reserve Bank of India (RBI) has said it will conduct on-tap targeted long-term repo operations

(LTRO) for an amount of Rs 1 lakh crore to ensure comfortable liquidity conditions in the system.

#### **What else has the RBI said?**

Liquidity availed by banks under the scheme has to be deployed in corporate bonds, commercial papers, loans and non-convertible debentures issued by entities in specific sectors over and above the outstanding level of their investments in such instruments as on September 30, 2020.

#### **What is LTRO?**

The LTRO is a tool under which the central bank provides one-year to three-year money to banks at the prevailing repo rate, accepting government securities with matching or higher tenure as the collateral.

#### **How is it different from LAF and MSF?**

While the RBI's current windows of liquidity adjustment facility (LAF) and marginal standing facility (MSF) offer banks money for their immediate needs ranging from 1-28 days, the LTRO supplies them with liquidity for their 1- to 3-year needs. LTRO operations are intended to prevent short-term interest rates in the market from drifting a long way away from the policy rate, which is the repo rate.

#### **Why is it important?**

As banks get long-term funds at lower rates, their cost of funds falls.

1. In turn, they reduce interest rates for borrowers.
2. LTRO helped RBI ensure that banks reduce their marginal cost of funds-based lending rate, without reducing policy rates.
3. LTRO also showed the market that RBI will not only rely on revising repo rates and conducting open market operations for its monetary policy, but also use new tools to achieve its intended objectives.

### **1.4 GST Compensation**

#### **Context:**

The Goods and Services Tax (GST) Council has failed again to reach an agreement on the contentious issue of borrowings to meet shortfalls in cess collections used to recompense the States for revenue losses from the indirect tax implementation. This was the third meeting in a row that discussed compensation shortfall without a decision.

#### **What's the main point of contention between the Centre and states now?**

1. The Centre says it is ready to help the States who have decided to borrow to bridge the cess shortfall.
2. But, few states have been demanding that the Centre must borrow instead of its push for the

States to do so.

### Why should the Centre pay states for GST loss?

The **GST Compensation Act, 2017** guaranteed States that they would be compensated for any loss of revenue in the first five years of GST implementation, until 2022, using a cess levied on sin and luxury goods.

However, **the economic slowdown has pushed both GST and cess collections** down over the last year, resulting in a 40% gap last year between the compensation paid and cess collected.

States are likely to face a GST revenue gap of ₹3 lakh crore this year, as the economy may contract due to COVID-19, which Finance Minister Nirmala Sitharaman termed an unforeseen **“act of God”**.

### What is compensation cess?

The modalities of the compensation cess were specified by **the GST (Compensation to States) Act, 2017**.

This Act assumed that the GST revenue of each State would grow at 14% every year, from the amount collected in 2015-16, through all taxes subsumed by the GST.

**A State that had collected tax less than this amount in any year would be compensated for the shortfall.** The amount would be paid every two months based on provisional accounts, and adjusted every year after the State's accounts were audited by the Comptroller and Auditor General. This scheme is valid for five years, i.e., till June 2022.

### Compensation cess fund:

A compensation cess fund was created from which States would be paid for any shortfall. An additional cess would be imposed on certain items and this cess would be used to pay compensation. The items are pan masala, cigarettes and tobacco products, aerated water, caffeinated beverages, coal and certain passenger motor vehicles.

The GST Act states that **the cess collected and “such other amounts as may be recommended by the [GST] Council” would be credited to the fund.**

## 1.5 Noble Prize in Economics

### Context:

The 2020 Nobel Prize in Economic Sciences has been awarded to Paul R. Milgrom and Robert B. Wilson **“for improvements to auction theory and inventions of new auction formats.”**

### Their contributions:

1. Robert Wilson showed why rational bidders tend to place bids below their own best estimate of the common value: they are worried about **the winner's curse** – that is, about paying too much and losing out.

2. Laureate Paul Milgrom formulated a more general theory of auctions that not only allows common values, but also private values that vary from bidder to bidder.

### What you need to know about the 'Auction theory'?

The outcome of an auction (or procurement) depends on three factors:

1. Auction's rules, or format.
2. Highest bid.
3. Uncertainty.

Using auction theory, it is possible to explain how these three factors govern the bidders' strategic behaviour and thus the auction's outcome

The theory can also show how to design an auction to create as much value as possible.

### Nobel Prize in Economics:

The **Sveriges Riksbank Prize in Economic Sciences** in Memory of Alfred Nobel has been awarded 51 times to 84 Laureates between 1969 and 2019.

The Nobel prize consists of a gold medal, a diploma and a cheque for 10 million Swedish kronor (\$1.1 million, 950,000 euros).

### 1.6 Additional borrowings to 20 States

#### Context:

The Finance Ministry has permitted 20 States to raise ₹68,825 crore through open market borrowings.

#### Background:

These 20 States, the expenditure department said, had conveyed their acceptance of the first borrowing option offered by the Centre to meet GST compensation shortfalls.

Under this, States could borrow ₹1.1 lakh crore from the market with principal and interest payments to be paid out of GST cess collections whose levy has been extended beyond 2022.

#### Why states need centre's permission while borrowing? Is it mandatory for all states?

**Article 293(3)** of the Constitution requires states to obtain the Centre's consent in order to borrow **in case the state is indebted to the Centre over a previous loan.**

1. This consent can also be granted subject to certain conditions by virtue of **Article 293(4)**.
2. In practice, the Centre has been exercising this power in accordance with the recommendations of **the Finance Commission.**

Every single state is currently indebted to the Centre and thus, **all of them require the Centre's consent in order to borrow.**

#### Does the Centre have unfettered power to impose conditions under this provision?

Neither does the provision itself offer any guidance on this, nor is there any judicial precedent that

one could rely on.

Interestingly, even though **this question formed part of the terms of reference of the 15th Finance Commission**, it was **not addressed in its interim report**.

**So, when can the centre impose conditions?**

The Centre can impose conditions **only when it gives consent for state borrowing**, and it can only **give such consent when the state is indebted to the Centre**.

**Why are such restrictions necessary?**

1. One possible purpose behind conferring this power upon the Centre was **to protect its interests in the capacity of a creditor**.
2. A broader purpose of **ensuring macroeconomic stability** is also discernible, since state indebtedness negatively affects the fiscal health of the nation as a whole.

### **1.7 Indian Bank Association**

**Context:**

The managing committee of Indian Banks' Association (IBA) has elected Union Bank of India's MD and CEO Rajkiran Rai G. as the association's chairman for 2020-21.

**Indian Banks' Association (IBA):**

Formed in 1946.

1. It is a representative body of management of banking in India operating in India – an association of Indian banks and financial institutions based in Mumbai.
2. IBA was formed for development, coordination and strengthening of Indian banking, and assist the member banks in various ways including implementation of new systems and adoption of standards among the members.

**Members:**

With an initial membership representing 22 banks in India in 1946, IBA currently represents 237 banking companies operating in India.

### **1.8 Open Market Operation (OMO)**

**Context:**

The Reserve Bank of India (RBI) has said it would conduct Open Market Operation (OMO) purchase of State Developments Loans as per its October 9 announcement.

RBI will purchase the SDLs through a multi-security auction using the multiple price method. There is no security-wise notified amount.

**What is OMO?**

Open market operations is the **sale and purchase of government securities and treasury bills by RBI or the central bank of the country**.



The objective of OMO is **to regulate the money supply in the economy**. It is one of the **quantitative monetary policy tools**.

**How is it done?**

RBI carries out the OMO through commercial banks and **does not directly deal with the public**.

**OMOs vs liquidity:**

1. When the central bank wants to infuse liquidity into the monetary system, it will buy government securities in the open market. This way it provides commercial banks with liquidity.
2. In contrast, when it sells securities, it curbs liquidity. Thus, the central bank indirectly controls the money supply and influences short-term interest rates.

**RBI employs two kinds of OMOs:**

**Outright Purchase (PEMO)** – this is permanent and involves the outright selling or buying of government securities.

**Repurchase Agreement (REPO)** – this is short-term and are subject to repurchase.

## 1.9 Insurance Ombudsman

**Context:**

The **Insurance Regulatory and Development Authority of India (IRDAI)** has advised public sector general insurers to appoint a nodal officer each for the 17 **insurance ombudsman offices** to ensure proper and timely disposal of complaints.

**Insurance Ombudsman:**

The Insurance Ombudsman scheme was created by the Government of India for individual policyholders to have their complaints settled out of the courts system in a cost-effective, efficient and impartial way.

**Who can approach?**

Any person who has a grievance against an insurer, may himself or through his legal heirs, nominee or assignee, make a complaint in writing to the Insurance ombudsman.

**One can approach the Ombudsman with complaint only if:**

One has first approached insurance company with the complaint and;

1. They have rejected it
2. Not resolved it to satisfaction or
3. Not responded to it at all for 30 days

And the value of the claim including expenses claimed should not be above Rs 30 lakhs.

**Appointment of Ombudsman:**

The Ombudsman is a person in the insurance industry, civil or judicial services, and is appointed by the insurance council. The serving term of the Insurance Ombudsman is three years.

**The settlement process:**

**Recommendation:**

The Ombudsman will act as mediator and

1. Arrive at a fair recommendation based on the facts of the dispute
2. If you accept this as a full and final settlement, the Ombudsman will inform the company which should comply with the terms in 15 days

**Award:**

If a settlement by recommendation does not work, the Ombudsman will Pass an award within 3 months of receiving all the requirements from the complainant and which will be binding on the insurance company.

**Once the Award is passed:**

The Insurer shall comply with the award within 30 days of the receipt of award and intimate the compliance of the same to the Ombudsman.

### **1.10 Production-linked incentive (PLI) scheme**

**Context:**

The government is considering an extension of **the production-linked incentive (PLI) scheme** to 7-8 more sectors to promote domestic manufacturing.

**PLI scheme:**

To make India a manufacturing hub, **the government recently announced the PLI scheme for mobile phones, pharma products, and medical equipment sectors.**

1. Notified on April 1 as a part of **the National Policy on Electronics.**
2. It proposes **a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain.**

**Key features of the scheme:**

1. The scheme shall extend an incentive of 4% to 6% on incremental sales (over base year) of goods manufactured in India and covered under target segments, to eligible companies, **for a period of five (5) years with financial year (FY) 2019-20 considered as the base year for calculation of incentives.**
2. The Scheme will be implemented through a Nodal Agency which shall act as a **Project Management Agency (PMA)** and be responsible for providing secretarial, managerial and implementation support and carrying out other responsibilities as assigned by MeitY from time to time.

**Eligibility:**

1. According to the scheme, companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales of all such mobile phones made in India.
2. In the same category, companies which are owned by Indian nationals and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.

**What kind of investments will be considered?**

All electronic manufacturing companies which are either Indian or have a registered unit in India will be eligible to apply for the scheme.

These companies can either create a new unit or seek incentives for their existing units from one or more locations in India.

However, **all investment done by companies on land and buildings for the project will not be considered** for any incentives or determine eligibility of the scheme.

**Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing**

- Incentive:** 4% to 6% on incremental sales (over base year) of goods manufactured in India
- Target Segments:** Mobile phones and specified electronic components
- Eligibility:** Subject to thresholds of incremental investment and incremental sales of manufactured goods
- Tenure of the Scheme:** Five years subsequent to the base year as defined (FY19-20)

**1.11 Government securities**

**Context:**

The Reserve Bank of India (RBI) has announced that it had decided to purchase **Government securities** for an aggregate amount of ₹20,000 crore under **Open Market Operations (OMO)**.

**What are govt securities?**

A government security (G-Sec) is a **tradeable instrument issued by the central government or state governments**.

**Key features:**

1. It **acknowledges the government's debt obligations.**
2. Such securities **can be both short term** (treasury bills – with original maturities of less than one year) and **long term** (government bonds or dated securities – with original maturity of one year or more).
3. The **central government issues both:** treasury bills and bonds or dated securities.
4. **State governments issue only bonds or dated securities**, which are called the **state development loans.**
5. Since they are issued by the government, they carry no risk of default, and hence, are called **risk-free gilt-edged instruments.**
6. **FPIs are allowed to participate** in the G-Secs market within the quantitative limits prescribed from time to time.

#### **Why are G-secs volatile?**

G- Sec **prices fluctuate** sharply in the secondary markets. Factors affecting their prices:

1. **Demand and supply** of the securities.
2. **Changes in interest rates** in the economy and other macro-economic factors, such as, liquidity and inflation.
3. **Developments in other markets** like money, foreign exchange, credit and capital markets.
4. Developments **in international bond markets**, specifically the US Treasuries.
5. Policy actions by RBI like change in repo rates, cash-reserve ratio and open-market operations.

#### **1.12 CPI-IW Base year**

The Labour and Employment Ministry has revised the base year of the Consumer Price Index for Industrial Workers (CPI-IW) from 2001 to 2016.

This was revised to reflect the changing consumption pattern, giving more weightage to spending on health, education, recreation and other miscellaneous expenses, while reducing the weight of food and beverages.

**Uses of CPI-IW:** It is used for measuring inflation in retail prices and is also used to regulate the dearness allowance (DA) of government staff and industrial workers, as well as to revise minimum wages in scheduled employments.

#### **1.13 Onion Stock Limit**

##### **Context:**

With retail prices of onion reaching nearly Rs 100 per kg in some cities, the government has invoked provisions of **the Essential Commodities Act, 2020**, and imposed **onion stock limits of 25 metric tonnes (MT) for wholesalers, and 2 MT for retailers.**

The stock limit, which comes into effect immediately, will continue until December 31.

**Essential Commodities (Amendment) law:**

It allows it to regulate perishable commodities in **an extraordinary situation of price-rise.**

Under provisions of this law, **any action on imposing stock limit will be based on price-rise.**

An **order for regulating stock limit may be issued only if** there is “100% increase in retail price of horticultural produce; or 50% increase in retail price of non-perishable agricultural foodstuffs”, over the price prevailing immediately preceding 12 months, or average retail price of last five years, whichever is lower.

**What are the extraordinary circumstances mentioned in the Bill?**

(i) War, (ii) famine, (iii) extraordinary price rise and (iv) natural calamity of grave nature.

**Exemptions under the law:**

Exemptions from stock-holding limits will be provided to processors and value chain participants of any agricultural produce, and orders relating to the PDS.

**1.14 Mandatorily package in Jute bags**

**Context:**

Cabinet approves Extension of Norms for Mandatory Packaging in Jute Materials.

Now, **100% of the foodgrains and 20% of the sugar shall be mandatorily packed in diversified jute bags.**

**Benefits:**

Nearly 3.7 lakh workers and several lakh farm families are dependent for their livelihood on the jute sectors.

1. This decision will give an impetus to the diversification of the jute industry.
2. It will also benefit farmers and workers located in the Eastern and North Eastern regions of the country.

**Background:**

Under the **Jute Packaging Materials (Compulsory use in Packing Commodities) Act, 1987**, the Government is required to consider and provide for the compulsory use of jute packaging material in the supply and distribution of certain commodities in the interest of production of raw jute and jute packaging material and of persons engaged in the production thereof.

**Jute:**

Known as **the ‘golden fibre’**, jute is one of the longest and most used natural fibre for various textile applications.

1. It thrives in **tropical lowland areas with humidity of 60% to 90%**. Jute is a **rain-fed crop** with little need for fertilizer or pesticides.

2. **India is the world's largest producer of raw jute** and jute goods.
3. The cultivation of jute in India is mainly confined to the eastern region of the country.
4. The **first jute mill was established at Rishra** (Bengal – now in West Bengal), on the river Hooghly near Calcutta in the year 1855, by Mr. George Aclend.
5. In 1959, **the first power driven weaving factory was set up.**

## INDIA AND WORLD

### 2.1 Belt and Road Initiative

#### Context:

Xi hails 'steady' China-Bangladesh friendship, seeks joint promotion of **Belt & Road Initiative.**

#### What is BRI?

The Belt and Road Initiative, reminiscent of the **Silk Road**, is a massive infrastructure project that would stretch from **East Asia to Europe.**

It was launched in 2013.

1. The plan is **two-pronged**: the **overland Silk Road Economic Belt** and the **Maritime Silk Road**- The two were collectively referred to first as the One Belt, One Road initiative but eventually became the Belt and Road Initiative.
2. The project involves creating a vast network of railways, energy pipelines, highways, and streamlined border crossings.

#### Pakistan and BRI:

To date, more than sixty countries—accounting for two-thirds of the world's population—have signed on to projects or indicated an interest in doing so.

Analysts estimate the largest so far to be the estimated \$60 billion **China-Pakistan Economic Corridor**, a collection of projects connecting China to Pakistan's Gwadar Port on the Arabian Sea.

#### What was the original Silk Road?

The original Silk Road arose during the westward expansion of China's **Han Dynasty** (206 BCE–220 CE), which forged trade networks throughout the Central Asian countries, as well as modern-day India and Pakistan to the south. Those routes extended more than four thousand miles to Europe.

#### How have other countries responded to BRI?

Some countries see the project as a disturbing expansion of Chinese power.

The United States shares the concern of some in Asia that the BRI could be **a Trojan horse for China-led regional development and military expansion.**

#### What does China hope to achieve?

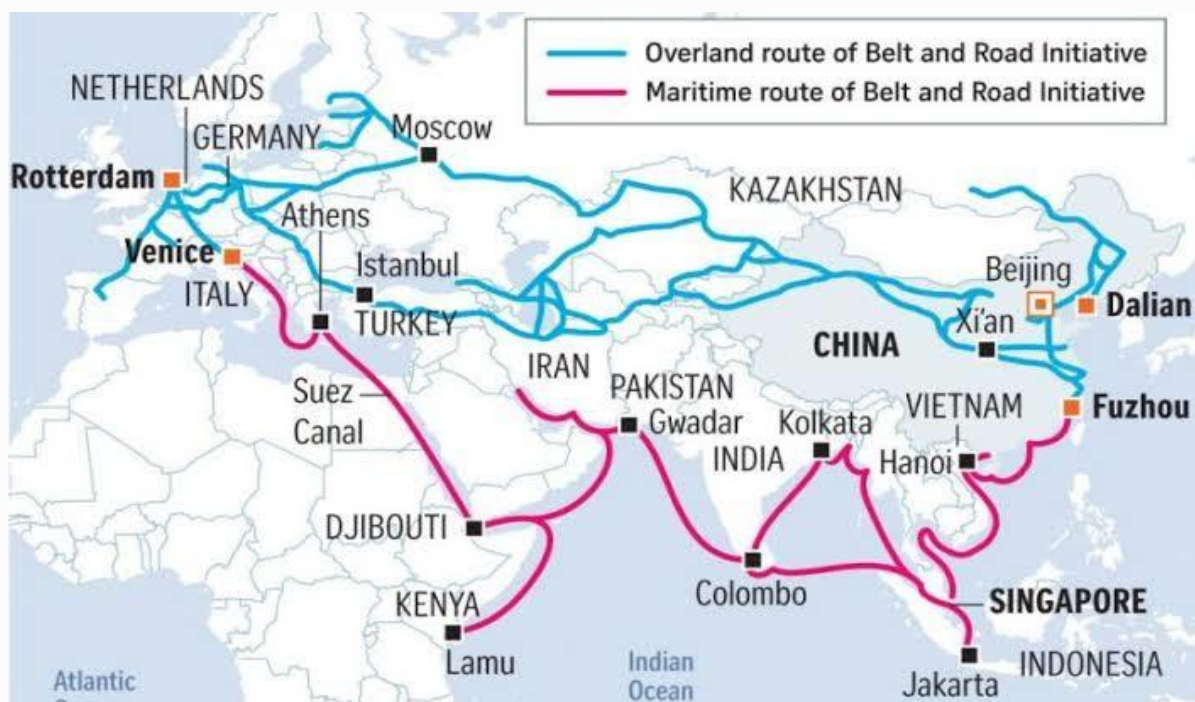
China has both **geopolitical and economic motivations** behind the initiative.

1. The country has promoted a vision of a more assertive China, while slowing growth and rocky trade relations with the United States have pressured the country's leadership to open new markets for its goods.
2. Experts see the BRI as one of the main planks of a bolder Chinese statecraft under Xi, alongside the **Made in China 2025** economic development strategy.
3. The BRI also serves as pushback against the much-touted S. **"pivot to Asia,"** as well as a way for China to develop new investment opportunities, cultivate export markets, and boost Chinese incomes and domestic consumption.

**India's views:**

India has tried to convince countries that **the BRI is a plan to dominate Asia**, warning of what some analysts have called a **"String of Pearls"** geoeconomic strategy whereby China creates **unsustainable debt burdens** for its Indian Ocean neighbors in order to seize control of regional choke points.

In particular, New Delhi has long been unsettled by China's decades-long embrace of its traditional rival, Pakistan.



**2.2 Pakistan to challenge India's application for exclusive GI tag for Basmati rice in EU**

**Context:**

Pakistan has decided to file its opposition in **the European Union** in response to India's

application for an exclusive Geographical Indications (GI) tag to Basmati rice.

**Why Pakistan is approaching EU? What are the provisions in this regard?**

Pakistan enacted the **Geographical Indications (Registration and Protection) Act** in March this year, which gives it the right to oppose Indian application for registration of Basmati rice exclusive rights.

While India has said that it is an Indian-origin product in its application, published in the EU's official journal on September 11.

As per the EU's official journal, any country can oppose the application for registration of a name pursuant to Article 50(2) (a) of Regulations (EU) of the European Parliament and of the Council on quality schemes for agricultural products and foodstuffs within three month from the date of publication.

**Claims by Pakistan:**

Pakistan said it was a major grower and producer of Basmati rice and India's application for exclusivity is unjustified.

**Background:**

In May 2010, GI status was given to basmati grown in Punjab, Haryana, Delhi, Himachal Pradesh, Uttrakhand and parts of western Uttar Pradesh and Jammu & Kashmir.

**GI tag:**

A GI is primarily an **agricultural, natural or a manufactured product** (handicrafts and industrial goods) originating from a definite geographical territory.

Typically, such a name conveys an assurance of quality and distinctiveness, which is essentially attributable to the place of its origin.

**What are the benefits?**

Once the GI protection is granted, no other producer can misuse the name to market similar products. It also provides comfort to customers about the authenticity of that product.

**Who is a registered proprietor of a geographical indication?**

1. Any association of persons, producers, organisation or authority established by or under the law can be a registered proprietor.
2. Their name should be entered in the Register of Geographical Indication as registered proprietor for the Geographical Indication applied for.

**How long the registration of Geographical Indication is valid?**

1. The registration of a geographical indication is valid for a period of 10 years.
2. It can be renewed from time to time for further period of 10 years each.

**Who accords and regulates Geographical Indications?**



**At the International level:** Geographical Indications are covered as a component of intellectual property rights (IPRs) under the **Paris Convention for the Protection of Industrial Property**. GI is also governed by the **World Trade Organisation's (WTO's) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**.

**In India,** Geographical Indications registration is administered by the **Geographical Indications of Goods (Registration and Protection) Act, 1999** which came into force with effect from September 2003. The first product in India to be accorded with GI tag was Darjeeling tea in the year 2004-05.

### 2.3 New Development Bank

#### **Context:**

New Development Bank has approved infrastructure projects worth 741 million dollars in India.

#### **New Development Bank:**

It is a multilateral development bank **operated by the BRICS states** (Brazil, Russia, India, China and South Africa).

1. It was agreed to by BRICS leaders at **the 5th BRICS summit held in Durban, South Africa in 2013**.
2. It was **established in 2014**, at the 6th BRICS Summit at **Fortaleza, Brazil**.
3. The bank is set up to foster greater financial and development cooperation among the five emerging markets.
4. **Headquartered** in Shanghai, China.

In 2018, the NDB received **observer status in the United Nations General Assembly**, establishing a firm basis for active and fruitful cooperation with the UN.

#### **Voting:**

Unlike the World Bank, which assigns votes based on capital share, in the New Development Bank each participant country will be assigned one vote, and none of the countries will have veto power.

#### **Roles and functions:**

The Bank will mobilise resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, to supplement existing efforts of multilateral and regional financial institutions for global growth and development.

### 2.4 Indo – Srilanka Accord

#### **Why in News?**

Following India's Prime Minister's request to the Sri Lankan counterpart to address Tamil aspirations with the implementation of the 13th Amendment to the Constitution, the Tamil MPs of Sri Lanka have questioned the government's commitment to the preceding **Indo-Lanka Accord of 1987**.

#### **About the Accord:**

Signed in 1987.

Popularly referred to as **the Rajiv-Jayewardene Accord**, after its architects Prime Minister Rajiv Gandhi and President J.R. Jayewardene.

1. It sought to collectively address all the three contentious issues between India and Sri Lanka: strategic interests, people of Indian origin in Sri Lanka and Tamil minority rights in Sri Lanka.
2. This accord saw the induction of **the Indian Peace Keeping Force (IPKF) in Sri Lanka**.
3. According to the terms of the accord, **Sri Lankan forces would withdraw from the north and the Tamil rebels would disarm**.
4. The accord was expected to resolve the Sri Lankan Civil War by enabling the thirteenth Amendment to the Constitution of Sri Lanka and the Provincial Councils Act of 1987.

#### **2.5 China and Quad**

IAS ACADEMY

##### **Context:**

China has reiterated its criticism of the meeting of the Foreign Ministers of Quad (India, Australia, Japan and the US) in Tokyo, saying it is opposed to the formation of **"exclusive cliques"** harming third party's interests.

##### **Background:**

The foreign ministers from the Indo-Pacific nations known as the Quad group – the US, Japan, India and Australia recently met in Tokyo in what is their first in-person talks since the coronavirus pandemic began.

##### **Why is China worried?**

1. The meeting took place in the backdrop of China's aggressive military behaviour in the Indo-Pacific, South China Sea and along the Line of Actual Control (LAC) in eastern Ladakh.
2. Besides, the strategic community in China has already branded the quad as an **emerging "Asian NATO"**.

### What is Quad grouping?

The **quadrilateral security dialogue** includes Japan, India, United States and Australia.

1. All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.
2. The idea was **first mooted by Japanese Prime Minister Shinzo Abe in 2007**. However, the idea couldn't move ahead with Australia pulling out of it.

### Significance of the grouping:

1. Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
2. Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.

### 2.6 Asian Development Bank

#### Context:

ADB, India sign \$270 million loan to improve urban services in 64 Madhya Pradesh small cities.

#### Asian Development Bank (ADB):

It is a regional development bank.

**Established on 19 December 1966.**

**Headquartered** – Manila, Philippines.

Official **United Nations Observer**.

#### Who can be its members?

The bank admits the **members of the United Nations Economic and Social Commission for Asia and the Pacific** (UNESCAP, formerly the Economic Commission for Asia and the Far East or ECAFE) and **non-regional developed countries**. ADB now has 68 members, 49 from within Asia.

#### Voting rights:

It is modeled closely on the World Bank, and has a **similar weighted voting system where votes are distributed in proportion with members' capital subscriptions**.

As of 31 December 2019, ADB's five largest shareholders are Japan and the United States (each with 15.6% of total shares), the People's Republic of China (6.4%), India (6.3%), and Australia (5.8%).

#### Roles and functions:

Dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration.

This is carried out through investments – in the form of loans, grants and information sharing – in infrastructure, health care services, financial and public administration systems, helping nations prepare for the impact of climate change or better manage their natural resources, as well as other

areas.

## 2.7 Shanghai Cooperation Organisation (SCO)

### Context:

7th Justice Ministers' Meeting of Shanghai Cooperation Organisation (SCO) Member States to be hosted by Union Law Minister Shri Ravi Shankar Prasad on 16th October, 2020.

### Shanghai Cooperation Organisation (SCO):

It is a **permanent intergovernmental international organisation**.

It's **creation was announced on 15 June 2001** in Shanghai (China) by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.

It was preceded by **the Shanghai Five mechanism**.

The **Shanghai Cooperation Organisation Charter** was signed during **the St.Petersburg SCO Heads of State meeting** in June 2002, and **entered into force on 19 September 2003**.

The SCO's **official languages are Russian and Chinese**.

### The SCO's main goals are:

1. Strengthening mutual trust and neighbourliness among the member states.
2. Promoting their effective cooperation in politics, trade, the economy, research, technology and culture.
3. Making joint efforts to maintain and ensure peace, security and stability in the region.
4. Moving towards the establishment of a democratic, fair and rational new international political and economic order.

### Currently:

1. **SCO comprises eight member states**, namely the Republic of India, the Republic of Kazakhstan, and the People's Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.
2. **SCO counts four observer states**, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran and the Republic of Mongolia.
3. **SCO has six dialogue partners**, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.

## 2.8 India Energy Modelling Forum

### Context:

NITI Aayog Announces **Governing Structure of India Energy Modelling Forum**.

The governing structure of IEMF will consist of:

1. An inter-ministerial: The committee will be convened by NITI Aayog and headed by its CEO, and comprise senior officials from the ministries of petroleum and natural gas; power; new and renewable energy; coal; environment, forest and climate change; and department of science and technology. This committee will review the studies/modelling activities and provide directions and new areas of research.
2. A steering committee: This committee will shortlist policy issues to be taken up for study and might form various taskforces depending on the specific studies/modelling exercises to be carried out.

### **India Energy Modeling Forum:**

Jointly launched by **NITI Aayog and United States Agency for International Development (USAID)** under the US–India Strategic Energy Partnership.

**Composition:** The forum would include knowledge partners, data agencies and concerned government ministries.

### **The Forum aims to:**

1. Provide a platform to examine important energy and environmental related issues;
2. Inform decision-making process to the Indian government;
3. Improve cooperation between modelling teams, government, and knowledge partners, funders;
4. Facilitate exchange of ideas, ensure production of high-quality studies;
5. Identify knowledge gaps at different levels and across different areas;
6. Build capacity of Indian institutions.

### **What is Energy Modelling?**

Energy modeling or energy system modeling is the process of building computer models of energy systems in order to analyze them.

1. Such models often employ scenario analysis to investigate different assumptions about the technical and economic conditions at play.
2. Outputs may include the system feasibility, greenhouse gas emissions, cumulative financial costs, natural resource use, and energy efficiency of the system under investigation.

### **What are Energy Modelling Forums (EMF)?**

The Energy Modelling Forum (EMF) in USA was **established in 1976 at Stanford University** to connect leading modelling experts and decision makers from government, industry, universities, and other research organizations

The forum provides an unbiased platform to discuss the contemporary issues revolving around

energy and environment.

## 2.9 India and FAO

### Context:

75th Anniversary of Food and Agriculture Organization (FAO) on 16th October 2020. India has released a commemorative coin of Rs 75 denomination to mark the occasion.

### India and FAO:

India has had a historic association with FAO.

1. Indian Civil Service Officer Dr. Binay Ranjan Sen was the Director General of FAO during 1956-1967.
2. The World Food Programme, which has won the Nobel Peace Prize 2020, was established during his time.
3. India's proposals for **the International Year of Pulses in 2016 and the International Year of Millets 2023** have also been endorsed by FAO.

### FAO:

It is a **specialized agency of the United Nations** that leads international efforts to defeat hunger.

Headquarters: Rome, Italy

**Founded:** 16 October 1945

**Goal of FAO:** Their goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

### Important reports and Programmes:

1. Global Report on Food Crises.
2. Every two years, FAO publishes **the State of the World's Forests**.
3. FAO and the World Health Organization created **the Codex Alimentarius Commission** in 1961 to develop food standards, guidelines and texts.
4. In 1996, **FAO organized the World Food Summit**. The Summit concluded with the signing of **the Rome Declaration**, which established the goal of halving the number of people who suffer from hunger by the year 2015.
5. In 2004 **the Right to Food Guidelines** were adopted, offering guidance to states on how to implement their obligations on the right to food.
6. FAO created **the International Plant Protection Convention or IPPC in 1952**.
7. FAO is depositary of **the International Treaty on Plant Genetic Resources for Food and Agriculture, also called Plant Treaty, Seed Treaty or ITPGRFA**, entered into force on 29 June 2004.

8. **The Globally Important Agricultural Heritage Systems (GIAHS) Partnership Initiative** was conceptualized in 2002 during World Summit on Sustainable Development in Johannesburg, South Africa.

### 2.10 India and Bangladesh per capita GDP

#### Context:

This comparison is based on **the International Monetary Fund's** latest update on **the World Economic Outlook**.

#### Key findings:

1. In 2020, growth of India's gross domestic product (GDP) will witness a contraction of over 10%.
2. On average, India's per capita GDP has been 24 per cent higher than Bangladesh's during the last five years.
3. But, in 2020, **the per capita income of an average Bangladeshi citizen would be more than the per capita income of an average Indian citizen** (This happened once in 1991 too). India's per capita GDP, in nominal US dollar terms, is projected to be \$1,876.53 in 2020, lower than \$1,887.97 projected for Bangladesh.

#### What is Per Capita Income?

It is arrived at by dividing the total GDP by the total population.

#### Three reasons why India's per capita income has fallen below Bangladesh this year:

1. **Growth rate:** Both countries have been growing faster in 2004. But, since 2017 onwards, India's growth rate has decelerated sharply while Bangladesh's has become even faster.
2. **Population growth:** In the last 15 years, India's population grew faster (around 21%) than Bangladesh's population (just under 18%).
3. **The most immediate factor was the relative impact of Covid-19** on the two economies in 2020. While India's GDP is set to reduce by 10%, Bangladesh's is expected to grow by almost 4%.

#### What helped Bangladesh stay ahead?

1. A key driver of growth has been **the garment industry where women workers gave Bangladesh the edge to corner the global export markets from which China retreated**.
2. The structure of Bangladesh's economy is such that **its GDP is led by the industrial sector, followed by the services sector**. Both these sectors create a lot of jobs and are more remunerative than agriculture.
3. Over the past two decades, Bangladesh **improved on several social and political**

**metrics** such as health, sanitation, financial inclusion, and women's political representation.

4. On financial inclusion, according to **the World Bank's Global Findex database**, while a smaller proportion of its population has bank accounts, **the proportion of dormant bank accounts is quite small when compared to India.**
5. Bangladesh is also far ahead of India in **the latest gender parity rankings.**
6. It has performed well in **the Global Hunger Index too.**

#### **What about other neighbours?**

China's per capita GDP in 2020 is projected to be \$10,839.43, Nepal and Sri Lanka, are projected to be \$1,115.56 and \$3,697.89.

#### **What next then?**

The IMF's projections show that India is likely to grow faster next year and in all likelihood again surge ahead. But, given Bangladesh's lower population growth and faster economic growth, India and Bangladesh are likely to be neck and neck for the foreseeable future in terms of per capita income.

### **2.11 China-Taiwan-India**

#### **Context:**

China has asked **India to approach ties with Taiwan "prudently and properly"**, and said it would "firmly oppose" any official exchanges between New Delhi and Taipei.

#### **What's the issue?**

The statement from China came in response to reports that **India and Taiwan were considering going forward with talks on a trade deal.**

1. India and Taiwan in 2018 already signed a bilateral investment agreement.
2. India-Taiwan trade ties have expanded since, and Taiwanese firms are prominent investors in India, although India and Taiwan do not maintain formal diplomatic relations.

#### **China- Taiwan relations- Background:**

China has claimed Taiwan through its "**one China**" policy since the Chinese civil war forced the defeated Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing's rule, by force if necessary.

1. **China is Taiwan's top trading partner**, with trade totaling \$226 billion in 2018. Taiwan runs a large trade surplus with China.
2. While **Taiwan is self-governed and de facto independent**, it has **never formally declared independence from the mainland.**
3. Under the "one country, two systems" formula, **Taiwan would have the right to run its**



**own affairs;** a similar arrangement is used in Hong Kong.

4. **Taiwan is a member of** the World Trade Organization, Asia-Pacific Economic Cooperation and Asian Development Bank under various names.

#### **Indo- Taiwan relations:**

Although they do not have formal diplomatic ties, **Taiwan and India have been cooperating in various fields.**

India has **refused to endorse the “one-China” policy since 2010.**

### **2.12 Indo-Nepal**

#### **Why in News?**

After months of simmering dispute with India over the Kalapani issue, Prime Minister K.P. Sharma Oli recently indicated a softer line when he used **an old map of Nepal** to greet everyone on the festival of Vijaya Dashami.

The old map does not show the region of **Kalapani-Lipulekh-Limpiyadhura**, which is part of India's Pithoragarh district, Uttarakhand.

#### **What's the issue?**

**Kalapani** is shown as part of Nepalese sovereign territory in the new map, which was unveiled on May 20, and made part of the insignia of the Nepalese state by an amendment on June 13.

#### **Where is Kalapani located?**

Located in the **easternmost corner of Uttarakhand's Pithoragarh district.**

Shares a border on the north with **the Tibet Autonomous Region of China and Nepal in the east and south.**

It is wedged in between **Limpiyadhura, Lipulekh and Kalapani.**

### **2.13 India-ILO**

#### **Context:**

**India has assumed the Chairmanship of the Governing Body of the International Labour Organization.**

Shri Apurva Chandra, Secretary (Labour and Employment) has been elected as the Chairperson of the Governing Body of the ILO for the period October 2020 to June 2021.

#### **About the Governing Body:**

It is the apex executive body of the ILO which decides policies, programmes, agenda, budget and elects the Director-General.

It **meets in Geneva.** It **meets three times annually.**

**ILO:**

1. Established as **an agency for the League of Nations following World War I.**
2. Established by **the Treaty of Versailles in 1919.**
3. It became **the first specialised agency of the United Nations (UN) in the year 1946.**
4. It got **the Nobel Peace Prize in 1969.**
5. It is **the only tripartite U.N. agency.** It brings together governments, employers and workers.
6. **Headquarters:** Geneva, Switzerland.

**INTERNATIONAL RELATIONS**

**3.1 Referendum in New Caledonia**

**Why in News**

The French territory of New Caledonia **voted against independence from France** in a referendum held recently. The referendum was a part of a decolonisation plan agreed in 1998, known as the **Noumea Accord**.

**Key Points**

**About:** New Caledonia is an archipelago and special collectivity of France located in the southwest Pacific Ocean.

**Population:** The **indigenous Kanaks** represent around 39% of the population, while **European settlers** (known as **Caldoches**) make up about 27%. Most of the remainder are from other Pacific islands, which are of mixed heritage, called Caledonians.

**History:**

New Caledonia was **discovered in 1774** by the British navigator **James Cook**.

It was **annexed by France in 1853**.

In 1946, New Caledonia became an overseas territory.

By 1953, French citizenship had been granted to all New Caledonians, regardless of ethnicity.

**Economy:** Besides having one of the region's highest average incomes per capita, New Caledonia is rich in resources and accounts for around **10% of the world's nickel reserve**.

**Political Status:** New Caledonia is a **territory sui generis** i.e. territory of its own kind. It is a **French overseas collectivity** i.e. they are first-order administrative divisions of France but have a semi-autonomous status.

It is one of the **United Nations' 17 Non-Self-Governing territories** - where the process of decolonisation has not been completed.

Non-Self-Governing Territories are defined as "territories whose people have not yet attained a full

measure of self-government". It includes the Cayman Islands, British Virgin Islands, Bermuda, Western Sahara, etc.

They vote in French elections and have French nationality.

New Caledonia has a **power-sharing executive** elected by the territory's Congress, which ensures that all parties on it are represented in proportion to their number of seats in Congress.

It depends on France for matters like defence and education.

**Conflict Over Independence:** The country has had conflicts over the issue of autonomy and independence from France for a long time.

New Caledonia has **deep divisions between its indigenous Kanak population and Europeans**, with indigenous Kanaks favouring independence and Europeans being against it.

In the 1980s, the country had violent conflicts between the opponents and supporters of independence which culminated into **Matignon Accords** in 1988.

The Accords specified a 10-year transitory status, after which a self-determination referendum would be held.

The **Noumea Accord**, which was concluded in 1998, provided for a practically sovereign status. Under this agreement, New Caledonia is allowed up to **three referendums on independence**, the latest one being the last of them.

**Significance:**

At a time where Chinese influence on the island, and in the whole **South Pacific region** is growing, it is very significant for France to be able to retain control over the island. A significant portion of New Caledonia's exports goes to China, much of which is nickel.

Though India has no official position of the referendum, the results of this referendum are particularly important for India in the double context of growing **India-France relations** and Indo-China conflicts. France is urging Australia and India to form a new "**strategic axis**" in the Indo-Pacific with it and New Caledonia to counter China's rise.

**3.2 FATF**

**Context:**

Pakistan will remain in FATF's 'grey' list till February 2021 as it has failed to fulfil six key obligations of FATF.

To date, Pakistan has made progress across all action plan items and has now largely addressed 21 of the 27 action items.

**Background:**

The FATF had placed Pakistan on the grey list in June 2018 and asked Islamabad to implement a plan of action to curb money laundering and terror financing by the end of 2019, but the deadline was extended later on due to Covid-19 pandemic.

**The points on which Pakistan failed to deliver included:**

1. Its lack of action against the charitable organisations or non-profit organisations linked to the terror groups banned by the UN Security Council.
2. Delays in the prosecution of banned individuals and entities like Lashkar-e-Taiba (LeT) chief Hafiz Saeed and LeT operations chief, Zaki Ur Rahman Lakhvi, as well as Jaish-e-Mohammad chief Masood Azhar.

**Implications:**

1. With Pakistan's continuation in the 'Grey List', **it will be difficult for the country to get financial aid from the IMF, the World Bank, the ADB and the European Union.**
2. This will further **enhance problems for the nation which is in a precarious economic situation.**
3. Also, there is every possibility that FATF may put the country in **the 'Black List'.**

**FATF:**

The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7.

1. It is a "policy-making body" which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas.
2. The FATF Secretariat is housed at the OECD headquarters in Paris.

**Roles and functions:**

1. Initially it was established to examine and develop measures to combat money laundering.
2. In October 2001, the FATF expanded its mandate to incorporate efforts to combat terrorist financing, in addition to money laundering.
3. In April 2012, it added efforts to counter the financing of proliferation of weapons of mass destruction.

**Composition:**

The FATF currently comprises 37 member jurisdictions and 2 regional organisations, representing most major financial centres in all parts of the globe. It also has observers and associate members.

**Objectives:**

To set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

### What is blacklist and grey list?

**Black List:** Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities. The FATF revises the blacklist regularly, adding or deleting entries.

**Grey List:** Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.

### Considered in the grey list may face:

1. Economic sanctions from IMF, World Bank, ADB.
2. Problem in getting loans from IMF, World Bank, ADB and other countries.
3. Reduction in international trade.
4. International boycott.

### 3.3 Poverty and Shared Prosperity report

#### Context:

It is a **biennial report of the World Bank**.

It provides a global audience with the latest and most accurate estimates on trends in global poverty and shared prosperity.

#### Key findings in the latest report:

##### Overall scenario:

1. Global extreme poverty is expected to rise for the first time in 20 years because of the disruption caused by COVID-19.
2. This will exacerbate the impact of conflict and climate change, which were already slowing down poverty reduction.
3. The pandemic may push another 88 million to 115 million into extreme poverty or having to live on less than \$1.50 per day, resulting in a total of 150 million such individuals.

##### Worst affected regions:

1. Many of the newly poor individuals will be from countries that already have high poverty rates while many in middle income countries (MICs) will slip below the poverty line.
2. Sub-Saharan Africa and South Asia, will be badly hit as per the Bank's projections.

##### What needs to be done now?

Prepare for a different economy post-COVID, by allowing capital, labour, skills, and innovation to move into new businesses and sectors.

### 3.4 New H-1B Curbs

#### Context:

The United States has issued new rules that make it harder for US companies to employ people on **H-1B non-immigrant visas**.

#### The Interim Final Rules change:

1. The definitions of specialty occupation, employer and employee-employer relationship.
2. Limit visa validity to one year for a worker at a third-party work site.
3. Increases enforcement and investigations for these visas.

#### Concerns for India:

The new rules will impact Indian services and staffing firms who often place workers on projects at third-party locations.

Indian nationals have received over 70% of the H-1B visas issued over the last few years, even as the share of Indian tech companies in the top 10 visa recipients has been dropping steadily in favour of American tech companies such as Apple, Google and Amazon.

#### Why should the US be worried about these changes?

The changes will restrict access to talent and harm the American economy.

They would also endanger U.S. jobs, put U.S. interests at risk and slow down R&D into solutions for COVID-19 crisis.

#### What are H-1B, H-2B, L and other work visas?

In order to fill a vacuum of highly-skilled low-cost employees in IT and other related domains, the US administration issues a certain number of visas each year which allows companies from outside the US to send employees to work on client sites.

1. H-1B: Person is Specialty Occupation: To work in a specialty occupation. Requires a higher education degree of its equivalent.
2. L1 visas allows companies to transfer highly skilled workers to US for a period of up to seven years.
3. H-2B visas allow food and agricultural workers to seek employment in the US.
4. J-1 Visas: It is for students on work-study summer programmes.

### 3.5 Nobel Literature Prize

American poet Louise Gluck has won the 2020 Nobel Literature Prize.

1. Previously, Ms. Gluck has won the Pulitzer Prize in 1993 and the National Book Award in 2014.

2. She is the fourth woman to win the Nobel Literature Prize in the past decade

#### **Nobel Prize in Literature:**

1. Awarded for Outstanding contributions in literature.
2. Location- Stockholm, Sweden.
3. Presented by- Swedish Academy.

### **3.6 Noble Peace Prize**

#### **Context:**

The **United Nations' World Food Programme (WFP)** has won the Nobel Peace Prize for its efforts to combat hunger around the world and improve conditions for peace in areas affected by conflict.

#### **Contributions and achievements of UN WFP:**

1. It helps nearly 97 million people in about 88 countries each year.
2. WFP is a driving force in efforts to prevent the use of hunger as a weapon of war and conflict.
3. WFP runs a logistics service that has dispatched medical cargoes to over 120 countries throughout the pandemic to help governments and health partners fighting COVID-19.
4. It also has provided passenger services to ferry humanitarian and health workers where commercial flights were unavailable.

#### **World Hunger Challenges:**

1. One in nine people worldwide still do not have enough to eat.
2. According to an estimate, there will be 265 million starving people within a year.

#### **UN WFP:**

The World Food Programme (WFP) is the food assistance **branch of the United Nations** and **the world's largest humanitarian organization addressing hunger and promoting food security**. Born in 1961, the WFP strives to eradicate hunger and malnutrition, with the ultimate **goal in mind of eliminating the need for food aid itself**.

It is a **member of the United Nations Development Group** and part of its Executive Committee. WFP food aid is also directed to fight micronutrient deficiencies, reduce child mortality, improve maternal health, and combat disease, including HIV and AIDS.

#### **What is "World Hunger Map"?**

**Alibaba Cloud**, the cloud computing arm of Alibaba is working with WFP to develop digital "World Hunger Map".

1. The map will help to monitor global hunger and operations to end scourge by 2030 which is

one of UN's key Sustainable Development goals.

2. It also aims to boost efficiency of interventions and shorten emergency response times.

### 3.7 China Debt-trap Diplomacy

#### Context:

China has announced that it is providing a \$90 million grant to Sri Lanka.

This announcement comes after Sri Lankan President sought help from a visiting Chinese delegation in disproving a perception that China-funded megaprojects are “debt traps.”

#### What's the issue?

China has been using the financial tool of debt to gain influence across the world and grab considerable power in India's neighbouring countries, thereby increasing the amount of political and security threats the nation is exposed to.

#### How does China's debt trap diplomacy work?

1. In a push to gain rapid political and economic ascendancy across the globe, China dispenses billions of dollars in the form of concessional loans to developing countries, mostly for their large-scale infrastructure projects.
2. These developing nations, which are primarily low- or middle-income countries, are unable to keep up with the repayments, and Beijing then gets a chance to demand concessions or advantages in exchange for debt relief.

#### How countries are being trapped?

There are several advantages or concessions that China asks for in exchange for debt relief.

1. **Sri Lanka** was forced to hand over control of the Hambantota port project to China for 99 years, after it found itself under massive debt owed to Beijing. This allowed China control over a key port positioned at the doorstep of its regional rival India, and a strategic foothold along a key commercial and military waterway.
2. In exchange for relief, China constructed its first military base in **Djibouti**. Whereas Angola is repaying multibillion-dollar debt to China with crude oil, creating major problems for its economy.

### 3.8 Enhanced Follow Up List

#### Context:

Noting that **Pakistan's measures against money laundering and terror financing “is not yet sufficient to justify a re-rating”**, the Asia Pacific Group of FATF has retained the country on its ‘**Enhanced Follow-up**’ list.

This was **the first Follow-Up Report on Mutual Evaluation** of Pakistan released by the Asia-



Pacific Group (APG).

#### **Why Pakistan was retained in this list?**

Pakistan's progress on the 40 FATF recommendations on the effectiveness of **anti-money laundering and combating financing terror (AML/CFT)** system largely remained unchanged – non-compliant on four counts, partially compliant on 25 counts and largely compliant on nine recommendations.

#### **What is a Mutual Evaluation Report?**

The APG Mutual Evaluations is a **peer-review system to determine whether countries meet the compliance standards for money laundering and terror financing.**

After a country submits a Mutual Evaluation report, APG members can decide to place a member either through **regular or enhanced follow-up.**

1. A regular follow-up means just biennial reports.
2. A country put under enhanced follow-up has to send four reports of compliance the following year.

#### **Background:**

FATF had placed Pakistan on its grey list in June 2018 and asked Islamabad to implement a plan of action to curb money laundering and terror financing by the end of 2019 but the deadline was extended later on due to COVID-19 pandemic.

#### **APG:**

The **Asia/Pacific Group on Money Laundering (APG)** is a FATF style regional inter-governmental (international) body, the members of which are committed to implement **international standards against money laundering (AML), the financing of terrorism (CTF) and financing the proliferation of weapons of mass destruction.**

APG was **founded in 1997 in Bangkok, Thailand**, and currently consists of 41 member jurisdictions in the Asia-Pacific region and a number of observer jurisdictions and international/regional observer organisations.

Jurisdictions that join the APG, either as members or as observers, commit to the **Recommendations of the Financial Action Task Force (FATF).**

### **3.9 Iran Nuclear Deal**

#### **Context:**

China backs Iran nuclear deal, calls for new West Asia forum. The forum would “enhance mutual understanding through dialogue and explore political and diplomatic solutions to security issues in

the West Asia”.

**Background:**

Iran has been locked in an acrimonious relationship with Saudi Arabia, the other major West Asian power, over the war in Yemen, Iranian influence in Iraq and Saudi support for Washington’s sanctions on Tehran.

**What was the Nuclear deal all about?**

Iran agreed to rein in its nuclear programme in a 2015 deal struck with **the US, UK, Russia, China, France and Germany**

Under **the Joint Comprehensive Plan of Action (JCPOA)** Tehran agreed to significantly cut its stores of centrifuges, enriched uranium and heavy-water, all key components for nuclear weapons. The JCPOA established **the Joint Commission**, with the negotiating parties all represented, to monitor implementation of the agreement.

**Why has US pulled out of the deal?**

Trump and opponents to the deal say it is flawed because it gives Iran access to billions of dollars but does not address Iran’s support for groups the U.S. considers terrorists, like Hamas and Hezbollah. They note it also doesn’t curb Iran’s development of ballistic missiles and that the deal phases out by 2030. They say Iran has lied about its nuclear program in the past.

**3.10 Thailand Protest**

**Context:**

Anti-government protests have escalated in Thailand in the last three months.

**What are the demands of protesters?**

1. Removal of present Prime Minister Prayuth Chan-ocha.
2. A new constitution.
3. An end to the harassment of activists.
4. Demands to reform the monarchy

**What’s the problem with the present system?**

It all started in 2017 when King’s constitutional powers were increased.

1. Pro-democracy activists say Thailand is backtracking on **the constitutional monarchy established when absolute royal rule ended in 1932**. They say **the monarchy is too close to the army** and argue that this has undermined democracy.
2. Protesters also seek **the scrapping of lese majeste laws against insulting the king**.
3. They want **the king to relinquish the personal control he took over a palace fortune** estimated in the tens of billions of dollars, and some units of the army.

### What do the Lese majeste laws mean?

The monarchy is protected by Section 112 of the Penal Code, which says whoever defames, insults or threatens the king, queen, heir-apparent or regent shall be jailed for three to 15 years.

#### Challenges ahead:

Some conservatives are against reforming the monarchy. They say, monarchy is an institution the constitution says is “enthroned in a position of revered worship”.

### 3.11 No-Deal Brexit

#### Context:

After six months of negotiations and a stalemate over key issues, on Friday 16 October, Boris Johnson said the UK must be prepared for a no trade deal with the EU from January, in a strong sign that negotiations with Brussels are coming to an end.

#### Is a no-deal Brexit really possible?

Yes. Failure to agree replacement trading arrangements will mean the UK leaving without a deal on January 1 and trading on WTO terms, which would introduce tariffs and quotas.

1. The Withdrawal Agreement will still be in place, so issues like the Irish border and the so-called “divorce bill” will be settled under its terms, but many other issues remain unresolved.
2. In other words, the original “no deal” may not be possible, but what is now known as “no deal” might better be viewed as a “no trade deal” exit.

#### What would no deal look like?

The European Union is adamant that **there is no such thing as a “managed” no deal** –fearful that making a no deal look too comfortable risks turning it into a self-fulfilling prophecy.

1. That will not prevent the European Commission from making contingency plans to smooth out significant disruption but only on a temporary, unilateral basis and only if it is in the EU’s interest.
2. Whether or not there is a trade deal, UK financial services will only be granted access to the EU market on the basis of “**equivalence**”, which is the same system of regulatory recognition US firms have.

#### How would Trade & Customs be managed?

Without any formal trade deal, the UK would have to rely on WTO rules – in a model described by Brexiteers as an “**Australia-style**” relationship. The default commission position is “all relevant” EU legislation will apply to imports and exports, including tariffs, which will mean customs checks.

#### Conclusion:

If a point is reached when no deal becomes inevitable, then the interests of both sides would become equally aligned in avoiding a catastrophic outcome.

1. Even with temporary measures in place, the fundamental question of what future relationship Britain and the EU want will remain.
2. No deal is not sustainable for the long term and eventually the two sides will need to return to the negotiating table.

### 3.12 NEW START Treaty

#### Context:

President Vladimir Putin has proposed a one-year extension without conditions of the last major nuclear arms reduction accord- **the New START treaty**- between Russia and the U.S.

#### New START deal:

It is a **nuclear arms reduction treaty** between the United States and the Russian Federation with the formal name of **Measures for the Further Reduction and Limitation of Strategic Offensive Arms**.

1. Signed on 8 April 2010 in Prague, and, after ratification entered into force on 5 February 2011.
2. Replaced **the Treaty of Moscow (SORT)**, which was to expire in December 2012.
3. Its name is a follow-up to **the START I treaty**, which expired in December 2009, the proposed START II treaty, which never entered into force, and the START III treaty, for which negotiations were never concluded.

#### Under terms of the treaty:

1. Number of strategic nuclear missile launchers will be reduced by half.
2. A new inspection and verification regime will be established, replacing the SORT mechanism.
3. The number of deployed strategic nuclear warheads is limited to 1,550.
4. Number of deployed and non-deployed inter-continental ballistic missile (ICBM) launchers, submarine-launched ballistic missile (SLBM) launchers, and heavy bombers equipped for nuclear armaments to 800 will be limited.

#### Timeline to meet these Targets:

1. These obligations must be met within seven years from the date the treaty enters into force.
2. The treaty will last ten years, with an option to renew it for up to five years upon agreement of both parties.

### 3.13 Rohingya Crisis

#### Who are the Rohingya?

Described by UN Secretary-General Antonio Guterres as “**one of, if not the, most discriminated people in the world**”, the Rohingya are **one of Myanmar’s many ethnic minorities**.

They numbered around one million in Myanmar at the start of 2017. They have their own language and culture and say they are descendants of Arab traders and other groups who have been in the region for generations.

#### **What’s the issue?**

The government of **Myanmar, a predominantly Buddhist country**, denies the Rohingya citizenship and even excluded them from the 2014 census, refusing to recognise them as a people. It sees them as illegal immigrants from Bangladesh.

#### **When did the latest crisis happen?**

In August 2017, a deadly crackdown by Myanmar’s army on Rohingya Muslims sent hundreds of thousands fleeing across the border into Bangladesh.

1. They risked everything to escape by sea or on foot a military offensive which the United Nations later described as a **“textbook example of ethnic cleansing”**.
2. But the army in Myanmar (formerly Burma) has said it was fighting Rohingya militants and denies targeting civilians.
3. The country’s leader **Aung San Suu Kyi**, once a human rights icon, has repeatedly denied allegations of genocide.

#### **What has been the international response?**

1. **Amnesty International** says the Myanmar military also raped and abused Rohingya women and girls.
2. **A report published by UN investigators** in August 2018 accused Myanmar’s military of carrying out mass killings and rapes with “genocidal intent”.
3. **The ICJ case, lodged by the small Muslim-majority nation of The Gambia**, in West Africa, on behalf of dozens of other Muslim countries, called for emergency measures to be taken against the Myanmar military, known as Tatmadaw, until a fuller investigation could be launched.

#### **Where are they now?**

About 860,000 Rohingya live in the world’s largest and most densely populated refugee camp in southern Bangladesh.

The Myanmar and Bangladesh governments continue to negotiate terms for the repatriation of Rohingya refugees to Myanmar.

According to the Ministry of Home Affairs, there are approximately 40,000 Rohingyas living in India.

### 3.14 China's new law

#### Context:

China has passed a **new law restricting sensitive exports to protect national security**. It comes into effect on December 1.

#### Overview of the new law:

1. It allows Beijing to “take reciprocal measures” against countries that abuse export controls and pose a threat to national security.
2. Chinese authorities will formulate and adjust **an export control list of items to be published in a “timely manner”**.
3. Foreign individuals and groups can also be found liable for violating export control rules.

#### Analysis– Impact of such legislations:

Not all is well between China and the US. The US, in recent times, has imposed unprecedented tariffs, threats of bans and sanctions on Chinese tech firms.

The US has also moved against popular platforms and major companies – including apps TikTok and WeChat, tech giant Huawei and chipmaker Semiconductor Manufacturing International Corp.

1. Therefore, the latest law is a move that adds to policy tools that China could wield against the U.S. as tensions – especially in technology – continue to rise.
2. Previously, in September, China launched a long-expected “**unreliable entities list**”, widely seen as a weapon to retaliate against the US which has used its own “entity list” to shut Huawei out of the U.S. market.
3. The month before that, China's Commerce Ministry stepped up **rules on technologies restricted for export, adding “civilian use” to the list**.

### 3.15 UN HUMAN RIGHTS COUNCIL

#### Context:

Pakistan and Nepal were recently re-elected to the UN Human Rights Council, China won a seat by the smallest margin while Saudi Arabia was defeated in the elections.

#### UNHRC:

UNHRC was reconstituted from its predecessor organisation, **the UN Commission on Human Rights** to help overcome the “credibility deficit” of the previous organisation.

**Headquartered** in Geneva, Switzerland.

#### Composition:

1. The UNHRC has 47 members serving at any time with elections held to fill up seats every

- year, based on allocations to regions across the world to ensure geographical representation.
- 2. Each elected member serves for a term of three years.
- 3. Countries are disallowed from occupying a seat for more than two consecutive terms.

**Functions:**

- 1. The UNHRC passes **non-binding resolutions on human rights issues** through a periodic review of all 193 UN member states called **the Universal Periodic Review (UPR)**.
- 2. It oversees expert investigation of violations in specific countries (Special Procedures).

**Challenges and Need for reforms:**

- 1. The human rights record of the member-states such as Saudi Arabia, China and Russia in the council has also not been in line with the aims and mission of the UNHRC, which has led to critics questioning its relevance.
- 2. Despite the continued participation of several western countries in the UNHRC, they continue to harbour misgivings on the understanding of Human rights.
- 3. Non-compliance has been a serious issue with respect to the UNHRC's functioning.
- 4. Non-participation of powerful nations such as the US.

**3.16 G-20 Anti-Corruption Working Group (ACWG)**

**Context:**

Saudi Arabia is hosting the first-ever Ministerial Meeting of the G-20 Anti-Corruption Working Group (ACWG) virtually.

**ACWG:**

Established by G20 Leaders at the Toronto Summit in 2010.

- 1. Responsible for updating and implementing the **G20 Anti-corruption Action Plan**.
- 2. Reports to G20 Leaders.
- 3. It cooperates closely with and supports the work of relevant international organizations, including **the Organization of Economic Cooperation and Development, the United Nations, the World Bank, the International Monetary Fund and the Financial Action Task Force**.

**What is the G20?**

The G20 is an annual meeting of leaders from the countries with the largest and fastest-growing economies. Its members account for 85% of the world's GDP, and two-thirds of its population. The G20 Summit is formally known as the "Summit on Financial Markets and the World Economy".

### Genesis of G20:

After the Asian Financial Crisis in 1997-1998, it was acknowledged that the participation of major emerging market countries is needed on discussions on the international financial system, and G7 finance ministers agreed to establish the G20 Finance Ministers and Central Bank Governors meeting in 1999.

### Full membership of the G20:

Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States and the European Union.

### What is G20+?

The G20 developing nations, also called G21/G23/G20+ is a bloc of developing nations which was established on August 20, 2003.

Its origins can be traced to the Brasilia Declaration signed by the foreign ministers of India, Brazil and South Africa on 6th June 2003. The G20+ is responsible for 60% of the world population, 26% of the world's agricultural exports and 70% of its farmers.

### 3.17 Poland Protest

#### Context:

Poland's Constitutional Tribunal has ruled that an existing law allowing abortion of malformed foetuses is unconstitutional, provoking an outcry from women and pro-choice activists.

The country's 1993 abortion law so far permitted the termination of pregnancy on the grounds of foetal defects.

#### What was the ruling on abortions?

1. Permitting abortions in the case of foetal deformities legalised "eugenic practices with regard to an unborn child, thus denying it the respect and protection of human dignity"
2. The tribunal observed that since the Polish constitution assures a right to life, an abortion based on a foetal malfunction was "a directly forbidden form of discrimination."

#### What does the court's decision mean for the people of Poland?

Fewer than 2,000 legal abortions are carried out in Poland each year, a majority of which are due to foetal defects. The court's ruling now essentially translates to a near complete ban on abortions in the country.

Besides, an estimated 80,000 to 120,000 Polish women either go abroad or seek illegal abortions every year due to the country's strict abortion laws. Now, if the Court's ruling is



implemented, this number shall definitely increase.

**Implications:**

Poland's abortion laws were already considered some of the strictest in Europe. Now, once the court's decision is enacted, **abortions will only be permitted in cases of rape, incest, or if there is a threat to the mother's life.** Finally, it is being seen as an attack on women's **basic human rights.**

**NATIONAL**

**4.1 Chardham Project**

**Context:**

A Supreme Court-appointed expert committee has alleged violations of the court orders in the execution of **the Chardham road project.**

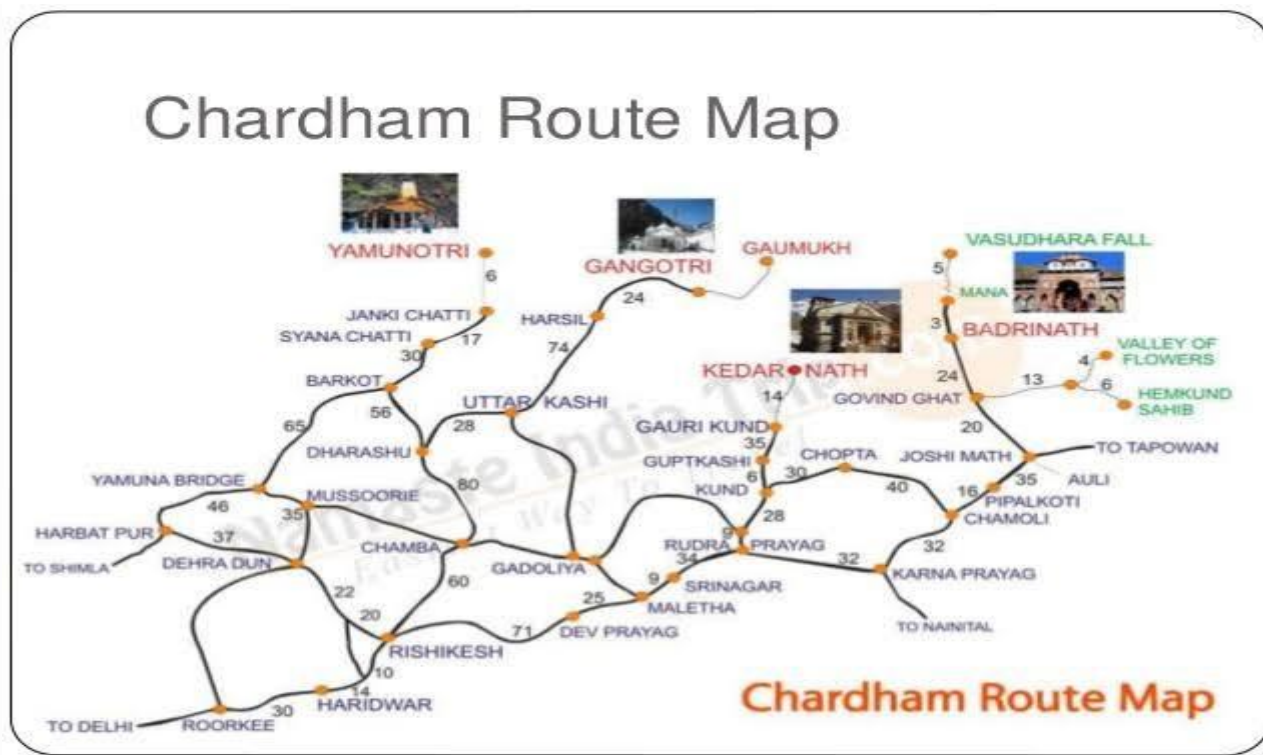
**What was the Court ruling?**

A controversial aspect was the proposed width of the two-lane highways envisaged.

The top court ruled last month that **a width of 5.5 metre** be enforced as it was in conformity with a 2018 recommendation of **the Ministry of Road Transport and Highways (MoRTH)** for mountain roads.

**What is Chardham Project?**

1. The project comprises improvement as well as the development of 889 km length of national highways.
2. The project will connect Badrinath Dham, Kedarnath Dham, Gangotri, Yamunotri, and part of the route leading to Kailash Mansarovar yatra.



#### 4.2 New EC rules announced



##### Context:

EC announces new rules for postal ballot. The rules aim to make it more convenient for those above 80 years of age and people with disabilities to vote.

##### New rules announced:

1. The returning officer would deploy polling teams, which will deliver and collect the postal ballot on pre-informed dates and then deposit it with the returning officer.
2. The form required to opt for the postal ballot would be delivered at the residence of all those aged above 80 and people with disabilities by the booth level officer under his polling station.

##### What is postal voting?

A restricted set of voters can exercise postal voting. Through this facility, a voter can cast her vote remotely by recording her preference on the ballot paper and sending it back to the election officer before counting.

##### Who else can avail this facility?

Members of the armed forces like the Army, Navy and Air Force, members of the armed police force of a state (serving outside the state), government employees posted outside India and their spouses are entitled to vote only by post.

The exception to the above-mentioned category of voters is provided under **Section 60 of the Representation of the People Act, 1951.**

#### **Representation of the People Act, 1951:**

This act provides for the actual conduct of elections in India. It deals with the following matters:

1. Details like Qualification and Disqualification of members of both the Houses of Parliament and the State Legislatures,
2. Administrative machinery for conducting elections,
3. Registration of Political parties,
4. Conduct of Elections,
5. Election Disputes,
6. Corrupt practices & Electoral offences, &
7. By-elections.

#### **4.3 PM SVANidhi Scheme**

##### **Context:**

Foodtech major Swiggy has signed an MoU with the Ministry of Housing & Urban Affairs or MoHUA to bring India's street food vendors on to its online platform.

The initiative under **PM Street Vendor's AtmaNirbhar Nidhi or PM SVANidhi Scheme** will help these vendors grow their business which was severely hit and are still struggling due to the Covid-19 pandemic.

##### **Overview of the scheme:**

1. It is a special micro-credit facility plan to provide affordable loan of up to ₹10,000 to more than 50 lakh street vendors, who had their businesses operational on or before 24 March 2020.
2. The scheme is valid until March 2022.
3. **Small Industries Development Bank of India** is the technical partner for implementation of this scheme.
4. It will manage the credit guarantee to the lending institutions through **Credit Guarantee Fund Trust for Micro and Small Enterprises.**

##### **Loans under the scheme:**

1. Under the scheme, vendors can avail working capital loan of up to ₹10,000, which is repayable in monthly instalments within one year.

2. On timely/early repayment of the loan, an interest subsidy of 7% per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer (DBT) on six-months basis.
3. There will be no penalty on early repayment of loan.

**Eligibility:**

The scheme is applicable to vendors, hawkers, thelewalas, rehriwalas, theliphadwalas in different areas/contexts who supply goods and services. Street vendors belonging to the surrounding peri-urban/rural areas are also included.

**4.4 K.V. Kamath Committee**

**Context:**

The Supreme Court recently asked the Centre and the Reserve Bank of India about the steps taken to implement **the K.V. Kamath Committee report on recommendations to bail out sectors affected by the COVID-19 pandemic.**

**Background:**

Various writ petitions have been filed in the court highlighting the plight of borrowers, small and big, who were being charged compound interest, post the pandemic moratorium which expired on August 31.

**When was the committee setup?**

In August this year, RBI set up a committee headed by K.V. Kamath on restructuring of loans impacted by the Covid-19 pandemic.

The Committee was tasked to recommend parameters for one-time restructuring of corporate loans.

**Recommendations made by the Committee:**

1. **Graded approach** to restructuring of stressed accounts based on severity of the impact on the borrowers- Banks can classify the accounts into mild, moderate and severe as recommended by the committee.
2. **Five financial parameters to gauge the health of sectors facing difficulties**- total outside liabilities to adjusted tangible networth, total debt to earnings before interest, taxes, depreciation, and amortization (Ebitda), debt service coverage ratio (DSCR), current ratio and average debt service coverage ratio (ADSCR).
3. **26 sectors** have been identified including auto, aviation, construction, hospitality, power, real estate and tourism.

**Applicability of these recommendations:**

1. The committee was to scrutinise restructuring of loans above ₹1500 crore.

2. The resolution under this framework is applicable only to those borrowers who have been impacted on account of Covid.
3. Only those borrowers which were classified as standard and with arrears less than 30 days as at March 1, 2020 are eligible under the Framework.

### **Why these measures were necessary? How serious is the debt problem?**

Corporate sector debt worth Rs 15.52 lakh crore has come under stress after Covid-19 hit India, while another Rs 22.20 lakh crore was already under stress before the pandemic.

1. This effectively means Rs 37.72 lakh crore (72% of the banking sector debt to industry) remains under stress.
2. This is almost 37% of the total non-food bank credit.
3. Besides, Companies in sectors such as retail trade, wholesale trade, roads and textiles are facing stress. Sectors that have been under stress pre-Covid include NBFCs, power, steel, real estate and construction.

### **4.5 Star Campaigners norms**

#### **Context:**

The Election Commission has revised norms for star campaigners for polls during the pandemic.

#### **Changes proposed:**

1. Maximum number of star campaigners reduced from 40 to 30 for a recognised party.
2. For unrecognised registered parties, the number of star campaigners has been reduced from 20 to 15.
3. Besides, they now require permission from the district election official 48 hours prior to campaigning.

#### **Who are star campaigners?**

They can be described as persons who are nominated by parties to campaign in a given set of Constituencies. These persons are, in almost all cases, prominent and popular faces within the Party. However, there are **no specific definitions according to law or the Election**

#### **Commission of India.**

#### **Benefits:**

The **expenditure incurred on campaigning by such campaigners is exempt from being added to the election expenditure** of a candidate. However, this only applies when a star campaigner limits herself to a general campaign for the political party she represents.

#### **What if a star campaigner campaigns specifically for one candidate?**

If a candidate or her election agent shares the stage with a star campaigner at a rally, then the entire expenditure on that rally, other than the travel expenses of the star campaigner, is added to

the candidate's expenses.

1. Even if the candidate is not present at the star campaigner's rally, but there are posters with her photographs or her name on display, the entire expenditure will be added to the candidate's account.
2. This applies even if the star campaigner mentions the candidate's name during the event. When more than one candidate shares the stage, or there are posters with their photographs, then the expenses of such rally/meeting are equally divided between all such candidates.

#### 4.6 River Boards

##### Context:

The Centre recently said that it will determine the jurisdictions of **the Krishna and Godavari river management boards (KRMB and GRMB)**.

It was announced during **the meeting of the apex council** involving the Centre, Andhra Pradesh and Telangana.

The meeting was held primarily **to resolve the conflict between the two States** over executing irrigation projects and sharing water from the Krishna and Godavari rivers.

##### Background:

The apex council has been constituted by the Central Government under the provisions of **Andhra Pradesh Reorganisation Act (APRA), 2014**.

1. It supervises the functioning of the Godavari River Management Board and Krishna River Management Board.
2. It comprises the Union Jal Shakti Minister and the Chief Ministers of Telangana and Andhra Pradesh.

##### Outcomes of the meeting:

1. The two states would submit Detailed Project Reports (DPR) of new irrigation projects for appraisal and sanction by the apex council.
2. The apex council would work towards establishing a mechanism to determine the share of Andhra Pradesh and Telangana in the Krishna and Godavari waters. The centre is expected to refer water sharing issues to the Krishna Godavari tribunal.
3. The headquarters of the KRMB would be located in Andhra Pradesh.
4. Telangana Chief Minister agreed to withdraw the case filed in Supreme Court, to allow the Centre to refer water sharing issues to the Krishna Godavari tribunal.

##### Inter-State River Water Disputes:

**Article 262** of the Constitution provides for the adjudication of inter-state water disputes.

1. Under this, Parliament may by law provide for the adjudication of any dispute or complaint

with respect to the use, distribution and control of waters of any inter-state river and river valley.

2. Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.

The Parliament has enacted the two laws:

1. The River Boards Act (1956).
2. The Inter-State Water Disputes Act (1956).

#### **1. The River Boards Act:**

It provides for the establishment of river boards by the Central government for the regulation and development of inter-state river and river valleys.

A River Board is established on the request of state governments concerned to advise them.

#### **2. The Inter-State Water Disputes Act:**

It empowers the Central government to set up an ad hoc tribunal for the adjudication of a dispute between two or more states in relation to the waters of an inter-state river or river valley.

1. The decision of the tribunal is final and binding on the parties to the dispute.
2. Neither the Supreme Court nor any other court is to have jurisdiction in respect of any water dispute which may be referred to such a tribunal under this Act.

### **4.7 Declared Foreigner**

#### **Context:**

The Gauhati High Court has said that people declared as foreigners **cannot be kept in jails that serve as detention centres, depriving them of basic human rights and human dignity.**

The court has also issued a notice to the Assam government to submit a report on the steps taken to set up detention centres outside jail premises and “hire any private premises” if “suitable government accommodations are not available for the purpose”.

#### **Declared foreigner:**

A declared foreigner, or DF, is a person marked by Foreigners’ Tribunal (FT) for allegedly failing to prove their citizenship after the State police’s Border wing marks him or her as an illegal immigrant.

#### **What is a Foreigners tribunal?**

In 1964, the govt brought in **the Foreigners (Tribunals) Order.**

**Composition:** Advocates not below the age of 35 years of age with at least 7 years of practice (or Retired Judicial Officers from the Assam Judicial Service (or) Retired IAS of ACS Officers (not below the rank of Secretary/Addl. Secretary) having experience in quasi-judicial works.

### Who can setup these tribunals?

The **Ministry of Home Affairs (MHA)** has amended the Foreigners (Tribunals) Order, 1964, and has empowered **district magistrates in all States and Union Territories to set up tribunals (quasi-judicial bodies)** to decide whether a person staying illegally in India is a foreigner or not.

Earlier, the powers to constitute tribunals were vested only with the Centre.

### Who can approach?

The amended order (Foreigners (Tribunal) Order, 2019) also empowers **individuals to approach the Tribunals.**

Earlier, only the State administration could move the Tribunal against a suspect.

## 4.8 TRP and Manipulation

### Why in News?

Mumbai police have alleged that three television channels are involved in manipulating TRPs.

### Target Rating Point (TRP):

It is the metric used by the marketing and advertising agencies to evaluate viewership.

TRPs represent how many people, from which socio-economic categories, watched which channels for how much time during a particular period.

### How is it recorded?

In India, the TRP is recorded by **the Broadcast Audience Research Council** using **Bar-O-Meters** that are installed on televisions in selected households.

As on date, the BARC has installed these meters in 44,000 households across the country.

Besides, **Audio watermarks are embedded in video content** prior to broadcast.

These watermarks are not audible to the human ear, but can easily be detected and decoded using dedicated hardware and software. As viewing details are recorded by the Bar-O-Meters, so are the watermarks.

### Why these ratings are important?

1. On the basis of audience measurement data, ratings are assigned to various programmes on television.
2. Television ratings in turn influence programmes produced for the viewers.
3. Better ratings would promote a programme while poor ratings will discourage a programme.
4. Incorrect ratings will lead to production of programmes which may not be really popular while good programmes may be left out.
5. Besides, TRPs are the main currency for advertisers to decide which channel to advertise on by calculating the cost-per-rating-point (CPRP).



### How can TRP data be rigged?

If broadcasters can find the households where devices are installed, they can either bribe them to watch their channels, or ask cable operators or multi-system operators to ensure their channel is available as the “landing page” when the TV is switched on.

### What is BARC?

It is an industry body **jointly owned by advertisers, ad agencies, and broadcasting companies**, represented by The Indian Society of Advertisers, the Indian Broadcasting Foundation and the Advertising Agencies Association of India.

Created in 2010. I&B Ministry notified the Policy Guidelines for Television Rating Agencies in India on January 10, 2014 and registered BARC in July 2015 under these guidelines, to carry out television ratings in India.

## 4.9 World Cotton Day

**Second World Cotton Day** was observed on **7th October 2020**.

The event is organised in collaboration with the Secretariats of the :

1. United Nations Food and Agriculture Organization (FAO)
2. The United Nations Conference on Trade and Development (UNCTAD)
3. The International Trade Centre (ITC) and the
4. International Cotton Advisory Committee (ICAC).

**Genesis:** This event stems from the **Cotton-4's** official application for the recognition of a World Cotton Day by the United Nations General Assembly.

**Cotton- 4 Countries:** Benin, Burkina Faso, Chad and Mali.

### Key points:

1. On the occasion, the Union Textiles Minister launched the first-ever brand and logo for Indian cotton.
2. Now India's premium cotton would be known as '**Kasturi Cotton**' in the world cotton trade.
3. The Kasturi Cotton brand will represent Whiteness, Brightness, Softness, Purity, Lustre, Uniqueness and Indianness.
4. India is the **2nd largest cotton producer** and the **largest consumer of cotton in the world**.
5. India produces about 6 million tons of cotton every year which is about 23% of the world cotton.

6. India accounts for about 51% of the total organic cotton production of the world, which demonstrates India's effort towards sustainability.

#### 4.10 Garba

##### Why in News?

Gujarat govt. bans garba during Navaratri.

##### Garba:

1. It is a **famous folk dance of Gujarat**. Garba refers to "Garba deep" which is an earthen pot with holes.
2. It is a dance performed in a circular form by the village as well as urban women with rhythmic clapping.
3. It is performed during the occasion of Navaratri, Sharad Purnima, Vasant Panchami, Holi, and other festival occasions.

#### 4.11 Full Waiver on road tax

##### Context:

Delhi Transport Department has issued a gazette notification stating **full waiver on road tax** on the battery-operated vehicles under the Electric Vehicle [EV] policy.

##### Overview of Delhi EV Policy:

Delhi EV Policy 2020 was unveiled last month with a focus to increase the adoption of electric vehicles in Delhi by incentivising the purchase and use of the EVs. The policy aims **to register 5 lakh electric vehicles in the city by 2024**.

##### Highlights of the policy:

1. Aims to constitute 25% electric vehicles by 2024, which is currently just 0.29% in the in the national capital.
2. The government will give **low-interest loan on electric commercial vehicles**.
3. **An 'EV Cell'** will be established to implement the Policy.
4. The government will also set up a **'State Electric Vehicle Board'**.
5. **200 charging stations** will be set up in a year to ensure that people driving these vehicles can get a charging station within the radius of three kilometers.
6. The Delhi government will give a **"scrapping incentive"** under the policy, which will be first-of-its-kind in the country.

#### 4.12 Rashtriya Kamdhenu Aayog

##### Context:

Rashtriya Kamdhenu Aayog begins nationwide campaign to celebrate “**Kamdhenu Deepawali Abhiyan**” – Promoting extensive use of cow-dung/ Panchgavya products this Diwali Festival.

RKA aims reaching 11 crore families to ignite 33 crore Diyas made of cow-dung during this year's Deepawali festival.

**Significance of the campaign:**

1. Apart from generating business opportunities for thousands of cow-based entrepreneurs/farmers, the use of cow-dung products will lead to a cleaner and healthier environment.
2. By providing an environmentally friendly alternative to Chinese made Diyas, the campaign will boost the 'Make in India' vision also.

**Rashtriya Kamdhenu Aayog:**

Constituted in 2019, the Aayog is a high powered **permanent apex advisory body** with the mandate to help the Central Government to develop appropriate programmes for conservation, sustainable development and genetic upgradation of indigenous breeds of cows.

It comes under **the Ministry of Fisheries, Animal Husbandry and Dairying**.

Rashtriya Kamdhenu Aayog will function as an **integral part of Rashtriya Gokul Mission**.

**Functions:**

1. Review existing laws, policies as well as suggest measures for optimum economic utilization of cow wealth for enhanced production and productivity, leading to higher farm income and better quality of life for the dairy farmers.
2. Advise and guide the Central Government and State Governments on policy matters concerning conservation, protection, development and welfare of cows and their progeny.
3. Promote schemes to encourage the use of organic manure and recommend suitable measures including incentive schemes for use of dung or urine of cow in organic manure by farmers to minimize the use of chemical fertilizers.
4. Make provisions for solutions to the problems related to abandoned cows in the country by providing technical inputs to Gaushalas, Gosadans and pinjarapoles.
5. Develop pastures or grazing lands and to associate with institutions or other bodies whether private or public, for the purpose of developing pastures and Gauchars.

**4.13 Election Symbols**

**Why in News?**

Bihar Assembly Election 2020: Voters can expect to see a myriad of symbols like chapatti roller, dolli, bangles, capsicum on the ballots.

### What is the need for election symbols?

The symbols help the several unrecognised parties and independent candidates differentiate themselves from one another and help voters identify the party of their choice.

### How many types of symbols are there?

As per the **Election Symbols (Reservation and Allotment) (Amendment) Order, 2017**, party symbols are either:

1. **Reserved:** Eight national parties and 64 state parties across the country have “reserved” symbols.
2. **Free:** The Election Commission also has a pool of nearly 200 “free” symbols that are allotted to the thousands of unrecognised regional parties that pop up before elections.

### How are symbols allotted to political parties?

As per the guidelines, to get a symbol allotted:

1. A party/candidate has to provide a list of three symbols from the EC’s free symbols list at the time of filing nomination papers.
2. Among them, one symbol is allotted to the party/candidate on a first-come-first-serve basis.
3. When a recognised political party splits, the Election Commission takes the decision on assigning the symbol.

### Powers of Election Commission:

The **Election Symbols (Reservation and Allotment) Order, 1968** empowers the EC to recognise political parties and allot symbols.

1. Under **Paragraph 15 of the Order**, it can decide disputes among rival groups or sections of a recognised political party staking claim to its name and symbol.
2. The EC is also **the only authority to decide issues on a dispute or a merger**. The Supreme Court upheld its validity in **Sadiq Ali and another vs. ECI in 1971**.

### 4.14 Disrupted Areas Act

#### Why in News?

President Ram Nath Kovind has given his assent to **the amended Disturbed Areas Act** passed by the Gujarat Legislative Assembly last year.

#### Background:

The bill was brought last year to amend the “**The Gujarat Prohibition of Transfer of Immovable Property and Provision for Protection of Tenants from Eviction from Premises in Disturbed Areas Act**”, 1991, commonly referred to as **the Disturbed Areas Act**.

The government had added some stringent provisions amid complaints from people that the current act was unable to curb the illegal sale or transfer of their properties in such notified disturbed areas.

### What is the Disturbed Areas Act?

Under the Disturbed Areas Act, a district Collector can notify a particular area of a city or town as a “disturbed area”. This notification is generally done based on **the history of communal riots in the area.**

1. Following this notification, the transfer of immovable property in the disturbed area **can take place only after the Collector expressly signs off on an application** made by the buyer and the seller of the property.
2. In the application, the seller has to attach an affidavit stating that **she/he has sold the property of her/his free volition, and that she/he has got a fair market price.**

### Latest Amendments:

1. The amended law would **stop polarisation and keep a check on attempts to cause any “demographic imbalance”.**
2. The Act **bans sale of property by members of one religious community to those from another community without the prior approval of the district collector** in areas declared as “disturbed areas”.
3. To stop people from acquiring properties in disturbed areas through illegal means, the act proposes **imprisonment between three to five years along with a fine of Rs 1 lakh or 10 per cent of value of property,** whichever is higher.
4. **The word “transfer” now includes** sale, gift, exchange, lease or taking possession of the property by way of power of attorney.
5. The act also empowers the state government to form a **“monitoring and advisory committee”** to keep a check on the demographic structure in the disturbed areas.
6. The government can form a **special investigation team (SIT)** to assist the state government in forming opinion before declaring any area to be a disturbed one.

### Role of Collector:

1. The collector can now check if there is any “likelihood of polarisation”, “disturbance in demographic equilibrium” or any “likelihood of improper clustering of persons of a community” if the transfer takes place.
2. The collector can reject the application of transfer after making assessment on these grounds. The aggrieved person can now file an appeal with the state government against the collector’s order.

### 4.15 STARS Project

#### Context:

Cabinet approves Rs. 5718 crore World Bank aided project STARS.

#### What is it?

STARS stands for **Strengthening Teaching-Learning and Results for States Program (STARS)**.

STARS project would be implemented as a new **Centrally Sponsored Scheme** under the Department of School Education and Literacy, Ministry of Education.

It is a project **to improve the quality and governance of school education in six Indian states.**

1. **Six states are-** Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan.
2. Some 250 million students (between the age of 6 and 17) in 1.5 million schools, and over 10 million teachers will benefit from the program.

#### Reform initiatives under the project include:

1. Focusing more directly on the delivery of education services at the state, district and sub district levels by providing customized local-level solutions towards school improvement.
2. Addressing demands from stakeholders, especially parents, for greater accountability and inclusion by producing better data to assess the quality of learning; giving special attention to students from vulnerable section.
3. Equipping teachers to manage this transformation by recognizing that teachers are central to achieving better learning outcomes.
4. Investing more in developing India's human capital needs by strengthening foundational learning for children in classes 1 to 3 and preparing them with the cognitive, socio-behavioural and language skills to meet future labour market needs.

#### Unique components of the project:

##### Contingency Emergency Response Component (CERC):

The project includes a Contingency Emergency Response Component (CERC) under the National Component which would enable it to be more responsive to any natural, man-made and health disasters.

1. It will help the government respond to situations leading to loss of learning such as school closures/infrastructure damage, inadequate facilities and use technology for facilitating remote learning etc.
2. The CERC component would facilitate the rapid re-categorization of financing and the utilization of streamlined financing request procedures.

##### PARAKH:

A major component of the project is the establishment of **PARAKH (Performance Assessment,**

Review, and Analysis of Knowledge for Holistic Development) as a National Assessment Centre.

1. Included in the **National Education Policy 2020**, this **autonomous institution under the Union Education Ministry** will set norms for student assessment and evaluation for all school boards across the country, most of which currently follow norms set by State governments.
2. It will also guide standardised testing to monitor learning outcomes at the State and national levels, according to the NEP.

#### 4.16 State Water Grid

##### Context:

Union Minister Nitin Gadkari suggests formation of **State Water Grid** in Maharashtra to overcome flood crisis in the State.

##### How will it be formed?

1. The State Water Grid will be formed on the lines of the National Power Grid and Highway Grid.
2. The idea is to divert the flood water from one river basin to the other river basin in the drought prone area of the state.
3. The areas with shortage of the water, scanty rainfall can get relief by the Grid.

##### Benefits of state water grid:

1. Help the government to ensure the availability of the water in drought prone areas and save the resources to manage the flood crisis.
2. This would also help to increase the area under irrigation, while bringing significant reduction in the numbers of suicides of farmers.
3. This would also help to increase agriculture produce and strengthen the rural and national economy.
4. The diverted flood waters would relieve the stress on the local resources. Transportation of goods and passengers through rivers (Water Transport) can be commenced in near future.
5. Fishing and other businesses can flourish alongside and major employment can be generated if such project is taken up as an essential infrastructure.

##### Need for such measures:

Floods create and trigger serious problems in different parts of the state and therefore there is an urgent need to chalk out a plan to manage this natural disaster that becomes grave because of other man made factors.

#### 4.17 The National Company Law Appellate Tribunal (NCLAT)

**Context:**

The National Company Law Appellate Tribunal (NCLAT) has dismissed an appeal against Siemens Gamesa Renewable Power Pvt. Ltd over alleged non-payment of settlement dues.

**NCLAT:**

Constituted under **Companies Act, 2013**.

**Functions:**

It hears appeals against the orders of:

1. NCLT under Section 61 of the Insolvency and Bankruptcy Code, 2016 (IBC).
2. Insolvency and Bankruptcy Board of India under Section 202 and Section 211 of IBC.
3. The Competition Commission of India (CCI).

**Composition:**

The **President of the Tribunal and the chairperson and Judicial Members of the Appellate Tribunal** shall be appointed after consultation with the Chief Justice of India.

The **Members of the Tribunal and the Technical Members** shall be appointed on the recommendation of a Selection Committee consisting of:

1. Chief Justice of India or his nominee—Chairperson.
2. A senior Judge of the Supreme Court or a Chief Justice of High Court— Member.
3. Secretary in the Ministry of Corporate Affairs—Member.
4. Secretary in the Ministry of Law and Justice—Member.
5. Secretary in the Department of Financial Services in the Ministry of Finance— Member.

**Eligibility:**

1. **Chairperson** – Should be/been judge of the Supreme Court or should be/been Chief Justice of the High Court.
2. **Judicial Member** – Is/has been a judge of a High Court or is a judicial member of a tribunal for 5 years or more.
3. **Technical member**– Person with proven ability, integrity and standing having special knowledge and experience of 25 years or more (in specified areas).

**Term:**

Term of office of chairperson and members is 5 years and they can be reappointed for additional 5 years.

#### 4.18 Grand ICT Challenge

1. It was launched by **National Jal Jeevan Mission** in partnership with **Ministry of**



#### **Electronics & Information Technology (MeitY).**

2. **Objective:** To create innovative, modular, and cost-effective solution to develop a 'Smart Water Supply Measurement and Monitoring System' to be deployed at the village level.
3. The mission **focuses on service delivery rather than mere creation of infrastructure.**
4. The best solution will get cash prize of Rs. 50 Lakh and runner ups will get prize of Rs. 20 Lakh each.

#### **4.19 Country's first multi-modal logistic park**

1. The first-ever multi-modal logistic park will be built in Assam.
2. The park will provide direct connectivity to air, road, rail and waterways to the people.
3. It will be developed under the ambitious **BharatmalaPariyojana** of the Government of India.

#### **4.20 Government increases poll spend ceiling by 10%**

##### **Context:**

The Law Ministry has increased **the ceiling on poll expenditure for Assembly and Lok Sabha elections by 10%.**

1. An amendment to **the Conduct of Elections Rules, 1961** in this regard has also been notified.
2. The last time the expenditure ceiling was enhanced was in 2014 just ahead of the Lok Sabha polls.

##### **Significance of the move:**

1. The move follows a recommendation by the Election Commission in view of curbs imposed during the coronavirus (COVID-19) pandemic.
2. This also comes as a relief for political parties and candidates as they deal with additional expenditure on public rallies and meetings in view of precautions that need to be taken in line with Covid-19 health protocols.
  1. This included additional expenditure on sanitisers, masks and regulation of crowds so as to adhere to social distancing norms.

##### **As per the changes:**

1. The limit for all states/UTs where the cap for Lok Sabha poll was Rs 70 lakh, has been raised to Rs 77 lakh; and for states/UTs with Rs 54 lakh as existing limit, to Rs 59.4 lakh.

2. For assembly polls, candidates in states/UTs with Rs 28 lakh as the expenditure limit, can now spend up to Rs 30.8 lakh and those with Rs 20 lakh as existing limit, up to Rs 22 lakh.

#### **Measures in place to ensure transparency:**

Candidates must **mandatorily file a true account of election expenses with the EC.**

An incorrect account, or expenditure beyond the ceiling can attract disqualification for up to three years under **Section 10A of The Representation of the People Act, 1951.**

#### **Why there is a need for ceiling on expenditures?**

1. Limits on campaign expenditure are meant to provide a **level-playing field for everyone contesting elections.** It ensures that a candidate can't win only because she is rich.
2. **The 255th Report of the Law Commission on electoral reforms** argued that unregulated or under-regulated election financing could lead to "lobbying and capture, where a sort of quid pro quo transpires between big donors and political parties/candidates".

#### **Further reforms:**

##### **Cap on party spends:**

The EC has asked the government to amend **the R P Act and Rule 90 of The Conduct of Elections Rules, 1961**, to introduce a ceiling on campaign expenditure by political parties in the Lok Sabha and Assembly polls.

1. It should be either 50% of or not more than the expenditure ceiling limit provided for the candidate multiplied by the number of candidates of the party contesting the election.
2. The limit will ensure level playing field for all political parties and curb the menace of unaccounted money in elections.
3. It will also control the money power used by political parties and their allies.

#### **Supreme Court observations:**

Supreme Court of India has said that **money is bound to play an important part in the successful pursuit of an election campaign** in **Kanwar Lal Gupta Vs Amarnath Chawla case.** Voters get influenced by the visibility of a candidate and party and huge election spending thus impacts voter's choice.

#### **4.21 Azad Hind Government**

##### **Context:**

**77th anniversary** of the formation of Azad Hind Government on 21st October, 2020.

##### **Azad Hind Government:**

Netaji Subhash Chandra Bose had announced **the establishment of the provisional government of Azad Hind in occupied Singapore in 1943.**

Known as **Arzi Hukumat-e-Azad Hind**, it was supported by the Axis powers of Imperial

**Japan, Nazi Germany, the Italian Social Republic, and their allies.**

The provisional government was also **formed in the Japanese-occupied Andaman and Nicobar Islands**. The islands were reoccupied by the British in 1945.

**Why was it set up?**

Bose was convinced that **armed struggle was the only way to achieve independence for India**. It drew ex-prisoners and thousands of civilian volunteers from the Indian expatriate population in Malaya (present-day Malaysia) and Burma (now Myanmar).

**Key features:**

1. The Azad Hind government had its own court, civil code and currency.
2. Its provisional capital was Port Blair, while its capital-in-exile was Rangoon and Singapore.

**Under the provisional government:**

1. **Bose** was the head of the state, the prime minister and the minister for war and foreign affairs.
2. **Captain Lakshmi** headed the women's organisation.
3. **S A Ayer** headed the publicity and propaganda wing.
4. **Rash Behari Bose** was designated as the supreme advisor.

**How it came to an end?**

Bose's death was seen as the end to the Azad Hind movement. The Second World War, also ended in 1945 with the defeat of the Axis powers.

#### 4.22 State Election Commission (SEC)

**Context:**

The **State Election Commission (SEC)** has filed a writ petition in the High Court seeking a direction to the government to provide budget and release funds as and when a request is made by it for conducting elections.

The SEC also prayed for assistance from the government in holding the civic polls.

**State Election Commission:**

The **Constitution of India vests in the State Election Commission**, consisting of a State Election Commissioner, **the superintendence, direction and control of the preparation of electoral rolls for, and the conduct of all elections to the Panchayats and the Municipalities (Articles 243K, 243ZA).**

**The State Election Commissioner is appointed by the Governor.**

As per **article 243(C3)** the Governor, when so requested by the State Election Commission, make available to the State Election Commission such staff as may be necessary for the discharge of the

functions conferred on the SEC.

**The ECI and SECs have a similar mandate; do they also have similar powers?**

The provisions of **Article 243K of the Constitution**, which provides for setting up of SECs, are almost identical to those of **Article 324** related to the EC. In other words, **the SECs enjoy the same status as the EC.**

In **Kishan Singh Tomar vs Municipal Corporation of the City of Ahmedabad case**, the Supreme Court directed that **state governments should abide by orders of the SECs during the conduct of the panchayat and municipal elections**, just like they follow the instructions of the EC during Assembly and Parliament polls.

**How far can courts intervene?**

**Courts cannot interfere** in the conduct of polls to local bodies and self-government institutions once the electoral process has been set in motion.

**Article 243-O** of the Constitution bars interference in poll matters set in motion by the SECs; **Article 329** bars interference in such matters set in motion by the EC.

1. Only after the polls are over can the SECs' decisions or conduct be questioned through an election petition.
2. These powers enjoyed by the SECs are the same as those by the EC.

#### **4.23 District Development Councils (DDC)**

**Context:**

The Centre on October 17 amended the **Jammu and Kashmir Panchayati Raj Act, 1989**, to facilitate the setting up of **District Development Councils (DDC)**.

A legislation to this effect was brought in by the **Ministry of Home Affairs**.

**What are DDCs? What are their functions?**

This system effectively **replaces the District Planning and Development Boards** in all districts.

1. They will **prepare and approve district plans and capital expenditure**.
2. The term of the DDC will be five years.

The council will hold **at least four "general meetings"** in a year, one in each quarter.

**Structure:**

1. Their number has been specified as 14 elected members per district representing its rural areas, alongside the Members of Legislative Assembly, chairpersons of all Block Development Councils within the district.
2. The electoral process will allow for **reservations for Scheduled Castes, Scheduled Tribes and women**.
3. The Additional District Development Commissioner (or the Additional DC) of the district

shall be the **Chief Executive Officer of the District Development Council.**

**Who will elect the members of DDC?**

They will be directly elected by voters in the Union Territory.

#### 4.24 Integrity Pact

**Why in News?**

The **Central Vigilance Commission** has amended the Standard Operating Procedure (SOP) on adoption of “**Integrity Pact**” in government organisations for procurement activities. This order **revises the SOP issued in January 2017.**

**As per the amended SOP:**

1. **For appointment as Integrity External Monitors (IEMs)**, the Ministry, department or organisation concerned has to forward a panel of suitable persons to the CVC, of those persons who are in the panel maintained by the Commission.
2. **Maximum tenure of IEMs:** 3 years in an organisation.

**What is an integrity pact?**

The pact is **to ensure transparency, equity and competitiveness in public procurement.**

They were developed as **a tool for preventing corruption in public contracting.**

1. It is a vigilance tool that envisages an agreement between the prospective vendors/bidders and the buyer, committing both the parties not to exercise any corrupt influence on any aspect of the contract.
2. It is a tool developed by **Transparency International.**

**Who are IEMs?**

The Integrity Pact envisages a panel of **Independent External Monitors (IEMs)** for each organisation.

1. IEM reviews independently and objectively, whether and to what extent parties have complied with their obligations under the pact.
2. They may submit a report to the chief executive of the organisation concerned or directly to the CVO and the CVC, if they find serious irregularities attracting the Prevention of Corruption Act provisions.

#### 4.25 Dairy Production in IVC

**Context:**

For the first time it's been proved scientifically that **dairy production was in place in the Indus Valley civilization in 2500 BCE, and the earliest known evidence of dairy production.**

The results were based on **molecular chemical analysis of residue in shards of pottery found** at the archaeological site of **Kotada Bhadli** located in Gujarat.

Of the 59 samples studied, 22 showed the presence of dairy lipids.

**Key findings from a latest study:**

1. **Dairy production in India began as far back as in the 3rd millennium BCE** and may have been a **factor behind sustaining the Indus Valley Civilisation**.
2. Through a process called **stable isotope analysis**, the researchers were also able to identify **the type of ruminant used for dairy**, and concluded that these were **cattle, like cows and buffalo, rather than goats and sheep**.
3. **Industrial level of dairy exploitation:** The Harappans did not just use dairy for their household. The large herd indicates that milk was produced in surplus so that it could be exchanged and there could have been some kind of trade between settlements. This could have given rise to an industrial level of dairy exploitation.

**Why these findings are significant? What can we learn from them?**

When we talk about Harappans, we always refer to the metropolitan cities and the big towns. But we have no idea of **the parallel economy – agro-pastoral or rural**.

We know they had great urban planning, trading systems, jewellery making. But we don't have any idea **how the common masters were living during the Harappan times**, their lifestyle and how they were contributing in the larger network.

**How was the study carried out?- Carbon isotope studies:**

**Molecular analysis techniques** were used to study the residues from ancient pottery.

1. Pots are porous. So as soon as we put any liquid form of food, it will absorb it.
2. But, **the pot preserves the molecules of food such as fats and proteins**.
3. Using techniques like C16 and C18 analysis we can **identify the source of lipids**.

#### **4.26 Draft model Act on Land Titling**

**Context:**

The NITI Aayog has released **the draft model Act and rules for states on conclusive land titling**.

**Objective:** To reduce litigations and ease the land acquisition process for infrastructure projects.

**Under The Model Act:**

1. **State governments will have the power to order for establishment, administration and management of a system of title registration of immovable properties**.
2. **The land dispute resolution officer and land title appellate tribunal** are one-shot institutions which will fade away as the work reduces.

3. After three years of its notification, **the register of title attains conclusivity without any external action.**
4. **Conclusive land titles are guaranteed by the state for correctness and entail provision for compensation by the state** in case of any dispute.
5. Any person aggrieved may 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 to that effect in Register of Titles and in the Register of Disputes and refer the case to the land dispute resolution officer.
6. A party aggrieved with an order of the land dispute resolution officer may file an appeal before **the Land Titling Appellate Tribunal** within 30 days of passing of such an order.
7. A special bench of High court shall be designated to deal with **appeals against the orders passed by the Land Titling Appellate Tribunal.**

#### **Need for and significance of Conclusive Land titles:**

**Conclusive land titles** are guaranteed by the state for their correctness and entail provision for compensation by the state in case of any disputes.

1. Conclusive land titling will **facilitate easy access of credit to farmers and reduce a large number of land-related litigations.**
2. It will also enable **transparent real estate transactions and land acquisition for infrastructure development.**
3. Guaranteed title systems have been developed and adopted in countries such as Australia, New Zealand, Singapore and the United Kingdom.

#### **4.27 Joint Committee of Parliament**

##### **Context:**

The **Joint Committee of Parliament on the Data Protection Bill** sought an affidavit from Twitter Inc., the U.S.-based parent company of the social media platform, asking them to explain why it had shown Ladakh as a part of China.

##### **What's the issue?**

1. Display of wrong map is not only a question of the sensitivity of India or Indians. It is a question about **national integrity and sovereignty of the country**, and not respecting that is a criminal offence.
2. And displaying Indian map improperly and incorrectly is **an offence of treason and attracts imprisonment of seven years.**

##### **What is a JPC?**

A Joint Parliamentary Committee (JPC) is set up **to examine a particular bill presented before**

the Parliament, or for the purpose of investigating cases of financial irregularities in any government activity.

1. The JPC is an **ad-hoc body**.
2. It is **set up for a given period of time and is aimed at addressing a specific issue**.

**Composition:**

1. In order to set up a JPC, a **motion is passed in one House and supported by the other House**.
2. The committee's **members are decided by Parliament**.
3. The number of members can vary. **There are twice as many Lok Sabha members as the Rajya Sabha**.

**Powers and Functions:**

1. A JPC is **authorised to collect evidence in oral or written form or demand documents in connection with the matter**.
2. The proceedings and findings of the committee are **confidential**, except in matters of public interest.
3. **The government can take the decision to withhold a document** if it is considered prejudicial to the safety or interest of the State.
4. **The Speaker has the final word in case of a dispute over calling for evidence**.
5. **The committee can invite interested parties for inquiry and summon people to appear before it**.
6. **The committee gets disbanded following the submission of its report to Parliament**.

**POLITICAL ISSUES, HUMAN RIGHTS AND GOVERNANCE**

**5.1 Narco Tests**

**Why in News?**

Uttar Pradesh government is planning to subject the Hathras rape and murder victim's family members to narco tests.

**What are the concerns?**

The consequences of such tests on "individuals from weaker sections of society who are unaware of their fundamental rights and unable to afford legal advice" can be devastating.

1. It may involve future abuse, harassment and surveillance, even leakage of the video material to the Press for a "trial by media."
2. Such tests are an affront to human dignity and liberty, and have long-lasting effects.

**What are narco test?**



Narco test involves the injection of a **drug, sodium pentothal**, which induces a hypnotic or sedated state in which the subject's imagination is neutralised, and they are expected to divulge true information.

The drug, referred to as "**truth serum**" in this context, was used in larger doses as anaesthesia during surgery, and is said to have been used during World War II for intelligence operations.

#### **How is it different from Polygraph test?**

A polygraph test is based on the assumption that physiological responses that are triggered when a person is lying are different from what they would be otherwise.

1. Instruments like cardio-cuffs or sensitive electrodes are attached to the person, and variables such as blood pressure, pulse, respiration, change in sweat gland activity, blood flow, etc., are measured as questions are put to them.
2. A numerical value is assigned to each response to conclude whether the person is telling the truth, is deceiving, or is uncertain.

#### **Are Indian investigators allowed to put suspects through these tests?**

In **Selvi & Ors vs State of Karnataka & Anr (2010)**, a Supreme Court ruled that no lie detector tests should be administered "except on the basis of consent of the accused".

It also said **the 'Guidelines for the Administration of Polygraph Test on an Accused'** published by the National Human Rights Commission in 2000, must be strictly followed.

The court took into consideration international norms on human rights, the right to a fair trial, and the right against self-incrimination under **Article 20(3) of the Constitution**.

## **5.2 Bodoland Territorial Council Election**

### **Context:**

Assam Cabinet has decided to request **the State Election Commission** to schedule **the Bodoland Territorial Council** election in December.

### **Background:**

The elections to 40 seats in the council were to have been held on April 4 but were deferred due to the COVID-19 pandemic.

**The council has been under the Governor's rule since its dissolution on April 27.**

### **Autonomous District Councils:**

As per **the Sixth Schedule**, the **four states** viz. Assam, Meghalaya, Tripura and Mizoram contain the Tribal Areas which are technically **different from the Scheduled Areas**.

Though these areas fall within the executive authority of the state, provision has been made for the creation of **the District Councils and regional councils for the exercise of the certain legislative and judicial powers.**

Each district is an autonomous district and **Governor can modify / divide the boundaries of the said Tribal areas by notification.**

The Governor may, by public notification:

- (a) Include any area.
- (b) exclude any area.
- (c) create a new autonomous district.
- (d) increase the area of any autonomous district.
- (e) diminish the area of any autonomous district.
- (f) alter the name of any autonomous district.
- (g) define the boundaries of any autonomous district.

**Constitution of District Councils and Regional Councils:**

- (1) There shall be a District Council for each autonomous district consisting of not more than thirty members, of whom not more than four persons shall be nominated by the Governor and the rest shall be elected on the basis of adult suffrage.
- (2) There shall be a separate Regional Council for each area constituted an autonomous region.
- (3) Each District Council and each Regional Council shall be a body corporate by the name respectively of the District Council of (name of district) and the Regional Council of (name of region), shall have perpetual succession and a common seal and shall by the said name sue and be sued.

### 5.3 Contempt of Court

**Context:**

Gujarat HC holds lawyer guilty in criminal contempt case.

**What is Contempt?**

While the basic idea of a contempt law is to punish those who do not respect the orders of the courts, in the Indian context, contempt is also used to punish speech that lowers the dignity of the court and interferes with the administration of justice.

**Contempt of court can be of two kinds:**

1. **Civil**, that is the willful disobedience of a court order or judgment or willful breach of an undertaking given to a court.
2. **Criminal**, that is written or spoken words or any act that scandalises the court or lowers its

authority or prejudices or interferes with the due course of a judicial proceeding or interferes/obstructs the administration of justice.

**Relevant provisions:**

1. **Article 129 and 215 of the Constitution** of India empowers the Supreme Court and High Court respectively to punish people for their respective contempt.
2. **Section 10 of The Contempt of Courts Act of 1971** defines the power of the High Court to punish contempts of its subordinate courts.
3. The Constitution also includes contempt of court as **a reasonable restriction to the freedom of speech and expression under Article 19**, along with elements like public order and defamation.

**5.4 Public places cannot be occupied indefinitely:SC**

**What was the case?**

On March 23, the Shaheen Bagh sit-in protest against the citizenship law was cleared by Delhi police after curbs were imposed on assembly and movement of people in wake of the coronavirus pandemic. The protest had been on for more than 100 days.

Even the apex court had appointed interlocutors to hold talks with the protesters and report back on the ground situation.

**What has the Supreme Court ruled now?**

1. The judgment upheld **the right to peaceful protest** against a law but made it unequivocally clear that **public ways and public spaces cannot be occupied, and that too indefinitely.**
2. It is the duty of the administration to remove such road blockades.
3. Dissent and democracy go hand in hand but protests must be carried out in designated area.

**Restrictions on Fundamental Rights:**

Fundamental rights do not live in isolation. These rights are subject to reasonable restrictions imposed in the interest of sovereignty, integrity and public order.

**Right to Protest peacefully:**

The right to protest peacefully is **guaranteed by the Constitution of India.**

**Articles 19(1)(a) and 19(1)(b)** give to all citizens the right to freedom of speech and expression, and to assemble peaceably and without arms.

However, under **Articles 19(2) and 19(3)**, the right to freedom of speech is subject to “reasonable restrictions”. These include the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court,

defamation or incitement to an offence.

**Powers of state:**

The legal provisions and avenue available to police for handling agitations, protests, and unlawful assemblies are covered by the Code of Criminal Procedure (CrPC), 1973, the Indian Penal Code (IPC), 1860, and The Police Act, 1861.

## 5.5 National Commission for Protection of Child Rights (NCPCR)

### Why in News?

The Supreme Court has sought a response from the National Commission for Protection of Child Rights (NCPCR) to its request to eight States to “produce” children living in care homes before the local **child welfare committees** for their “immediate repatriation” with their families.

The court is suo motu monitoring the welfare of children placed in care homes during the pandemic.

### What's the issue?

The NCPCR reportedly wrote to Tamil Nadu, Andhra Pradesh, Telangana, Mizoram, Karnataka, Kerala, Maharashtra and Meghalaya in this regard.

1. These States together have 1.84 lakh children in care homes. This accounts for over 70% of the children in care homes.
2. The NCPCR explained the need for a child to grow up in a familial environment.

### What has the Court asked now?

1. The Court asked the NCPCR to respond why such repatriation of the children to their families should not be done on an individual basis.
2. The court also wondered whether the NCPCR could issue such general directions to the States without considering the education, health, safety of the children, the consent of their parents and their economical situation.

### NCPCR:

Set up in March 2007 under **the Commission for Protection of Child Rights Act, 2005**.

It works under the administrative control of **the Ministry of Women & Child Development**.

**Definition:** The Child is defined as a person in the 0 to 18 years age group.

**The Commission's Mandate is** to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in consonance with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.

**Under the RTE Act, 2009, the NCPCR can:**

- 1.inquire into complaints about violation of the law.
- 2.summon an individual and demand evidence.
- 3.seek a magisterial enquiry.
- 4.file a writ petition in the High Court or Supreme Court.
- 5.approach the government concerned for prosecution of the offender.
- 6.recommend interim relief to those affected.

**Composition:**

This commission has a chairperson and six members of which at least two should be women.

- 1.All of them are appointed by Central Government for three years.
- 2.The maximum age to serve in commission is 65 years for Chairman and 60 years for members.

**Child Welfare Committees:**

As per **the Section 27(1) of Juvenile Justice (Care and Protection of Children) Act, 2015 (JJ Act)**, Child Welfare Committees (CWCs) are **to be constituted by State Government** for every district, for exercising the powers and to discharge the duties conferred on such Committees in relation to children in need of care and protection under JJ Act, 2015.

**Composition of the committees:**

The Committee shall consist of a Chairperson, and four other members as the State Government may think fit to appoint, of whom atleast one shall be a woman and another, an expert on the matters concerning children.

**Eligibility conditions:**

Chairperson and the members shall be above the age of thirty-five years and shall have a minimum of seven years of experience of working with children in the field of education, health, or welfare activities, or should be a practicing professional with a degree in child psychology or psychiatry or social work or sociology or human development or in the field of law or a retired judicial officer.

**5.6 Diminishing role of the Parliament**

**Context:**

How the present government's actions are undermining the role of Parliament today.

**Actions that have diminished the role of Parliament:**

PM Modi has spoken only 3.6 times a year in Parliament: 22 times in six years.

1. This illustrates **the populist style of communication** of Modi, who prefers to communicate directly with the people, either on the radio (like Indira Gandhi in the 1970s) or via social media (like the US President Donald Trump).

2. Now the main concern here is that these methods reflect a **preference for one-way messaging**, which obviates the risk of contradiction, and questioning by the receiver.

**Ordinance route:** In order to circumvent Parliament, the Modi government has often followed the ordinance route.

1. While ordinances are usually resorted to by minority governments or coalition governments, the Modi government has used it more than any of his predecessors despite the BJP enjoying a majority in the Lok Sabha.
2. The average number of ordinances jumped from six a year under Manmohan Singh to 11 a year under Modi.

#### **No role for Parliamentary Committees:**

The number of Bills that have been referred to parliamentary committees — the deliberative core of parliamentary work — has shrunk dramatically, from 68 (71 per cent of the total) in the 15th Lok Sabha to 24 (25 per cent of the total) in the 16th Lok Sabha — and zero in 2020.

#### **Resort to money Bill route:**

Several key pieces of legislation have been passed as Money Bills, despite the fact that they did not fit this category.

#### **Less discussions:**

Ordinary Bills are not so much discussed, either because their texts are handed over to the MPs at the last minute or because there is little time for debates.

#### **Role and significance of Parliament in deliberations:**

By definition, **Parliament is the crucible of criticism, deliberation and even consensus-making.**

Parliamentarism stands poles apart from populism, not only because **it epitomises representative democracy**, but also because it **treats opponents as adversaries, not as enemies.**

So Clearly, the Lok Sabha and the Rajya Sabha are ceasing to be places for debates.

### **5.7 Jagans' letter attempt to coerce Judiciary**

#### **Context:**

The All India Judges Association has passed a resolution condemning Andhra Pradesh Chief Minister Y.S. Jagan Mohan Reddy's letter against Supreme Court judge Justice N.V. Ramana as a "deliberate attempt to scandalise and coerce the judiciary".

The Association said the "tone, tenor and timing of the letter portrays malafide intent and appears to be orchestrated for hidden agendas".

### What's the issue?

AP CM's complaint is with respect to Supreme Court Justice N.V. Ramana's alleged influencing of posting of cases in the State High Court.

1. The complaint also alleges the hostile attitude of some High Court judges towards the current state government of Andhra Pradesh and their deliberate and unsubstantiated striking down of the state government's decisions and orders.
2. This amounts to an accusation of misconduct, corruption and the political bias among the judges.

### Why is this issue important?

Though there have been previous instances of such allegations against certain judges, **the current situation is unprecedented given that the current allegations have been made by a constitutional body, The Chief Minister of a state.** This marks an **open conflict between the judiciary and a Chief Minister.**

### But, How are allegations of misconduct against judges dealt with?

There are two broad alternatives when it comes to complaints against sitting judges:

1. Impeachment.
2. In-house procedure.

### In-house procedure:

Since 1997, judges have adopted an 'in-house procedure' for inquiring into charges.

Under this, when a complaint is received against a High Court judge:

1. The CJI should decide on the authenticity of the complaint and decide whether it is frivolous or it involves serious misconduct and impropriety.
2. The CJI would ask for the concerned judge's response if he feels the complaint is serious, The CJI may close the matter if he is satisfied with the response.

### Suppose, If the CJI feels that a deeper probe is necessary:

1. He forms a **three-member committee** consisting of only the judiciary members.
2. The composition of this three-member committee depends on the position of the judge against whom the complaint has been filed.
3. The inquiry it holds is of the nature of a fact-finding mission and is not a formal judicial inquiry involving examination of witnesses.
4. **The committee can give two kinds of recommendations**, one where it deems the misconduct as serious enough to require removal from office, or that it is not serious enough to warrant removal.

### Actions taken on the recommendations of the committee:

- 1.If the committee deems the charges against the judge as genuine, the concerned judge will be urged to resign or seek voluntary retirement.
- 2.If the judge is unwilling to quit, the Chief Justice of the High Court concerned would be asked to withdraw judicial work from him.
- 3.The executive i.e, the President and the Prime Minister are informed of the situation and are expected to begin the process of impeachment.
- 4.If the misconduct does not warrant removal, the judge would be advised accordingly.

#### **Concerns against the manner of the release of the letter in the public domain:**

- 1.The public disclosure of the letter could have **compromised the dignity, independence and majesty of the top court and the A.P. High Court.**
- 2.It could amount to **scandalising the judiciary in the eyes of the people by sensationalising the issue** and could also be deemed **an interference with the administration of justice.**
- 3.In such cases **the faith of the people in the judiciary and the rule of law are at stake.**

#### **Constitutional provisions in this regard:**

1. **Article 121 and Article 211** of the Indian Constitution expressly bar Parliament and the state legislatures to discuss the conduct of any judge.
2. Besides, the SC in **the Ravichandran Iyer v. Justice A.M. Bhattacharjee (1995) case** has held that complaints against sitting judges should be kept confidential.

### **5.8 Maharashtra withdraws general consent to CBI**

#### **Context:**

The Maharashtra government has withdrawn “**general consent**” given to the Central Bureau of Investigation (CBI) to probe cases in the state.

#### **What consent is necessary?**

The CBI is governed by the **Delhi Special Police Establishment Act** that makes **consent of a state government mandatory for conducting investigation in that state.**

#### **There are two kinds of consent:**

**Case-specific and general**– Given that the CBI has jurisdiction only over central government departments and employees, it **can investigate a case involving state government employees or a violent crime in a given state only after that state government gives its consent.**

“**General consent**” is normally given to help the CBI seamlessly conduct its investigation into cases of corruption against central government employees in the concerned state.

#### **What does withdrawal mean?**



It simply means that CBI officers will lose all powers of a police officer as soon as they enter the state unless the state government has allowed them.

The decision means **the CBI will now have to get consent from the state government for every case it registers in Maharashtra.**

**Under what provision can general consent been withdrawn?**

In exercise of power conferred by **Section 6 of the Delhi Special Police Establishment Act, 1946**, the state governments can withdraw the general consent accorded.

**Can withdrawal mean that the CBI can no longer probe any case?**

No. The CBI would still have the power to investigate old cases registered when general consent existed. Also, cases registered anywhere else in the country, but involving people stationed in states which have withdrawn consent, would allow CBI's jurisdiction to extend to these states.

## 5.9 Land laws for the Jammu and Kashmir

**Context:**

The Centre has notified new **land laws for the Jammu and Kashmir UT region**, ending the exclusive rights enjoyed by the local population over land under the now-diluted Article 370.

**Who introduced the changes?**

The introduction of **the UT of J&K Reorganisation (Adaptation of Central Laws) Third Order, 2020**, by **the Ministry of Home Affairs** has resulted in the repeal of at least 11 land laws in vogue in J&K earlier, including the J&K Big Landed Estates Abolition Act that had resulted in the famous 'land to tiller' rights.

**What are the latest changes?**

1. Under the newly introduced **J&K Development Act**, the term **"being permanent resident of the State"** as a criteria has been **"omitted"**, paving the way for investors outside J&K to invest in the UT.
2. **No land used for agriculture purposes shall be used for any non-agricultural purposes** except with the permission of the district collector.
3. The **government may now allow transfer of land** "in favour of a person or an institution for the purpose of promotion of healthcare or senior secondary or higher or specialized education in J&K".
4. Also, **No sale, gift, exchange, or mortgage of the land shall be valid in favour of a person who is not an agriculturist.**
5. **An Army officer not below the rank of Corps Commander** can declare an area as **"Strategic Area"** within a local area, only for direct operational and training

requirements of the armed forces.

**Need for:**

The Centre has been arguing that Article 370 hampered development in the U.T. as **investors were unable to purchase land prior to August 5, 2019.**

**Implications:**

People, including investors, outside Jammu and Kashmir can now purchase land in the Union Territory.

**5.10 New Wage Code**

**Context:**

There is a Provision in **the Code on Wages** that says **those indulging in sexual harassment of any form could run the risk of losing out on bonus dues from their employers.** The new Code is expected to become operational once the government notifies the rules.

**Related provisions in the new wage code:**

1. The new code includes 'conviction for sexual harassment' as a ground for denying bonus payouts to employees.
2. As per the extant law, bonus dues are barred only in case of employees dismissed for fraud, violent conduct and theft or sabotage.

**Significance:**

The prospect of losing one's benefits may make employees more careful of their conduct, and they should be made aware of this provision.

This serves as **an additional deterrent** apart from **the Prevention of Sexual Harassment (PoSH) law of 2013.**

As per the PoSH law guidelines:

1. Firms are required to form **an Internal Complaints Committee (ICC)** to inquire into complaints.
2. The Committee is required to make recommendations to employers on the action required pursuant to its inquiry in such complaints.
3. If the ICC upholds a complaint, it could be construed as a conviction.
4. ICC has the powers to decide if someone is guilty and report it further to the police, though not all sexual harassment cases translate into a police case.

**5.11 POWER- Promoting Opportunities for Women in Exploratory Research**

1. It is a scheme **to mitigate gender disparity in science and engineering research funding** in various S&T programs in Indian academic institutions and R&D laboratories.

2. Launched by **the Science and Engineering Research Board (SERB)**, a Statutory body of the Department of Science and Technology (DST).
3. It will have two components namely: (1) SERB-POWER Fellowship; (2) SERB- POWER Research Grants

### 5.12 Imposition of Article 356

#### Context:

West Bengal governor Jagdeep Dhankhar recently made serious allegations about **the law and order situation in the state**.

The remarks prompted speculation about imposition of **Article 356** in the State where Assembly polls are scheduled next year.

#### Challenges highlighted:

1. The political killings, targeted killings and violence are a cause of great concern.
2. The greater challenge to democracy in the state is that the police and administration, those in the premier services, the IAS and IPS, are politicised.
3. Some of them are working as full-time political workers, as political foot soldiers, totally abandoning their roles.

#### What is President's Rule in the Indian context?

**Article 356 of the Constitution of India** gives President of India **the power to suspend state government and impose President's rule of any state in the country** "if he is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution".

It is also known as '**State Emergency**' or '**Constitutional Emergency**'.

#### Implications:

Upon the imposition of this rule, **there would be no Council of Ministers**. The state will fall under the direct control of the Union government, and **the Governor will continue to head the proceedings, representing the President of India**.

#### Parliamentary Approval and Duration:

1. A proclamation imposing President's Rule **must be approved by both the Houses of Parliament within two months** from the date of its issue.
2. The approval takes place through **simple majority in either House**, that is, a majority of the members of the House present and voting.
3. **Initially valid for six months**, the President's Rule **can be extended for a maximum period of three years with the approval of the Parliament, every six months**.

### Report of the Governor:

Under Article 356, President's Rule is imposed if the President, **upon receipt of the report from the Governor of the State or otherwise, is satisfied that a situation has arisen in which the government of the State cannot be carried on in accordance with the provisions of the Constitution.**

### Revocation:

1. A proclamation of President's Rule may be **revoked by the President at any time by a subsequent proclamation.**
2. Such a proclamation **does not require parliamentary approval.**

### 5.13 Central Vigilance Commission

#### Context:

CVC has decided to receive through email, from November 1 onwards, all vigilance clearance proposals for the Board level, all-India and Central services officials for appointment, empanelment, promotion and other related issues. No hard copies of documents will be accepted.

#### CVC:

It is the apex vigilance institution **created via executive resolution** (based on the recommendations of **Santhanam committee**) in 1964 but was **conferred with statutory status in 2003.**

It **submits its report to the President of India.**

The CVC is **not controlled by any Ministry/Department.** It is an independent body which is **only responsible to the Parliament.**

#### Composition:

Consists of central vigilance commissioner along with 2 vigilance commissioners.

#### Appointment:

They are appointed by the President of India on the recommendations of a committee consisting of Prime Minister, Union Home Minister and Leader of the Opposition in Lok Sabha (if there is no LoP then the leader of the single largest Opposition party in the Lok Sabha).

#### Term:

Their term is 4 years or 65 years, whichever is earlier.

#### Removal:

The Central Vigilance Commissioner or any Vigilance Commissioner **can be removed from his office only by order of the President on the ground of proved misbehavior or incapacity** after the Supreme Court, on a reference made to it by the President, has, on inquiry, reported that the Central Vigilance Commissioner or any Vigilance Commissioner, as the case may

be, ought to be removed.

## SCIENCE AND TECHNOLOGY

### 6.1 Nobel Prize for Medicine

#### Context:

Americans Harvey J Alter and Charles M Rice, and British scientist Michael Houghton have been awarded the Nobel Prize for Medicine or Physiology for the discovery of **the hepatitis C virus**.

#### Their Contributions:

1. The trio's work helped explain a major **source of blood-borne hepatitis** that couldn't be explained by the hepatitis A and B viruses.
2. Thanks to their discovery, **highly sensitive blood tests for the virus** are now available and these have essentially eliminated post-transfusion hepatitis in many parts of the world, greatly improving global health.
3. Their discovery also allowed the rapid development of **antiviral drugs directed at hepatitis C**.

#### What is Hepatitis C?

It is a **liver disease**.

Caused by the hepatitis C virus (HCV): the virus can cause both **acute and chronic hepatitis**.

Hepatitis C is a major cause of liver cancer.

#### How is it caused? Spread?

The hepatitis C virus is a **bloodborne virus**: the most common modes of infection are through exposure to small quantities of blood.

#### Treatment:

**Antiviral medicines** can cure more than 95% of persons with hepatitis C infection, thereby reducing the risk of death from cirrhosis and liver cancer, but access to diagnosis and treatment is low.

There is currently **no effective vaccine against hepatitis C**; however, research in this area is ongoing.

#### Types of Hepatitis Viruses:

There are 5 main hepatitis viruses, referred to as types A, B, C, D and E.

1. Hepatitis A and E are typically caused by ingestion of contaminated food or water.
2. Hepatitis B, C and D usually occur as a result of parenteral contact with infected body fluids.

### 6.2 Noble Prize in Physics

#### Context:

**2020 Nobel Prize in physics** has been awarded to Roger Penrose, Reinhard Genzel and Andrea Ghez for furthering the **understanding of black holes**.

**What are black holes?**

A black hole is formed when stars collapse and can be defined as **a space in the universe with an escape velocity so strong that even light cannot escape it**.

Escape velocity is the speed at which an object must travel to override a planet or an object's gravitational force.

**Main features of blackholes:**

1. Since light cannot get out, black holes are invisible and can only be tracked with the help of a space telescope or other special tools.
2. Light cannot escape from blackholes because the gravity inside a black hole is very strong as a result of a lot of matter being squeezed into a small space.

**What do the award winners' work tell us about black holes?**

1. **Penrose:** Discovered "that black hole formation is a robust prediction of the general theory of relativity."
2. **Genzel and Ghez:** Discovered a "supermassive compact object at the centre of our galaxy." This is now known to be **the Sagittarius A\* supermassive black hole**, which has a mass four million times that of the Sun and is confined to an area roughly the size of our Solar System.

**Key points for Prelims:**

1. **Sagittarius A\*** is one of two black holes whose photographs have been captured by **the Event Horizon Telescope project**.
2. Black holes do not emit or radiate anything, even light. So, there is no way their image can be captured. But the area just outside its boundary, called **the event horizon**, which has vast amounts of gas, clouds and plasma swirling violently, does emit all kinds of radiations, even visible light.

### **6.3 Noble Prize in Chemsitry**

**Context:**

2020 Nobel Prize in Chemistry Awarded for **CRISPR/Cas9 'Genetic Scissors'**.

Emmanuelle Charpentier and American Jennifer Doudna share the prize for developing the **CRISPR/Cas9 tool** to edit the DNA of animals, plants and microorganisms with precision.

It is possibly **the only time in the history of Nobel Prize that two women have been declared the sole winners**.

**CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats):**

### How it works?

It locates the specific area in the genetic sequence which has been diagnosed to be the cause of the problem, cuts it out, and replaces it with a new and correct sequence that no longer causes the problem.

### Procedure:

1. An RNA molecule is programmed to locate the particular problematic sequence on the DNA strand, and a special protein called **Cas9** (genetic scissor) is used to break and remove the problematic sequence.
2. A DNA strand, when broken, has a natural tendency to repair itself. But the auto-repair mechanism can lead to the re-growth of a problematic sequence. Scientists intervene during this auto-repair process by supplying the desired sequence of genetic codes, which replaces the original sequence.
3. It is like cutting a portion of a long zipper somewhere in between, and replacing that portion with a fresh segment.

### What is the significance of this technology?

1. **It's simple:** Its simplicity has often been compared to the 'Cut-Copy-Paste' mechanism in any word processor (or probably, the equally common 'Find-Replace' mechanism).
2. **Potential applications:** Its uses can potentially transform human beings, and all other life forms. It can potentially eliminate genetic, and other, diseases, multiply agricultural production, correct deformities, and even open up the more contentious possibilities of producing 'designer babies', and bringing cosmetic perfection.
3. **Efficient:** Because the entire process is programmable, it has a remarkable efficiency, and has already brought almost miraculous results. Genetic sequences of disease-causing organisms can be altered to make them ineffective.
4. **For Agriculture:** Genes of plants can be edited to make them withstand pests, or improve their tolerance to drought or temperature.

### Ethical Concerns involved:

**2018 Designer Babies:** In November 2018, a Chinese researcher claimed that he had **altered the genes of a human embryo** that eventually resulted in the birth of twin baby girls. This was the **first documented case of a 'designer babies'** being produced using the new gene-editing tools like **CRISPR**, and this raised ethical concerns.

In the case of the Chinese twins, the genes were edited to ensure that **they do not get infected with HIV**, the virus that causes AIDS. This special trait would then be inherited by their subsequent generations as well.

### What was the concern then?

The concerns were over **the ethics of producing babies with particular genetic traits.**

1. The problem in this case, potential infection to HIV virus, already had other alternative solutions and treatments. What made matters worse was that **the gene-editing was probably done without any regulatory permission or oversight.**
2. Besides, CRISPR technology wasn't 100 per cent accurate, and it is possible that **some other genes could also get altered by mistake.**

### 6.4 Rudram Anti-Radiation Missile

#### Context:

Successfully test-fired recently from a Sukhoi-30 fighter aircraft.

#### Key points:

1. The missile has been developed by **the Defence Research and Development Organisation (DRDO).**
2. It has a **strike range of around 100 to 150 km.** (Even up to 200 km depending upon the launch conditions)
3. It is **the first indigenous air-to-ground missile** developed by the DRDO, after the supersonic BrahMos, which has been developed jointly with Russia.
4. The missile has been designed for **suppression of enemy air defenses (SEAD).**
5. The missile can be launched from a varying range of altitudes for destroying enemy surveillance radars, tracking and communication systems.

### 6.5 Feluda

**Feluda** is the acronym for **FNCAS9 Editor Linked Uniform Detection Assay.**

1. It is an accurate and low-cost **paper-based test strip** to detect Covid-19 and can deliver a result in 45 minutes.
2. It has been approved for commercial launch by **the Drugs Controller General of India.**
3. Developed by **the Council of Scientific and Industrial Research (CSIR) and Tata Group.**

#### How it works?

It uses indigenously developed **CRISPR gene-editing technology** to identify and target the genetic material of SARS-CoV2, the virus that causes Covid-19.

#### Significance:



1. According to CSIR, the test matches accuracy levels of RT-PCR tests.
2. It has a quicker turnaround time and requires less expensive equipment.
3. 'Feluda' is also the world's first diagnostic test to deploy a specially adapted Cas9 protein to successfully detect the virus.

### 6.6 electronic Vaccine Intelligence Network (eVIN)

#### Context:

The eVIN network is being repurposed for the delivery of the COVID-19 vaccine.

#### eVIN:

The eVIN is an innovative technological solution aimed at **strengthening immunization supply chain systems across the country**.

This is being **implemented under the National Health Mission (NHM)** by the Ministry of Health and Family Welfare.

It aims to **provide real-time information on vaccine stocks and flows, and storage temperatures** across all cold chain points in the country.

#### Benefits of eVIN:

1. It has helped create a big data architecture that generates actionable analytics encouraging data-driven decision-making and consumption-based planning.
2. It helps in maintaining optimum stocks of vaccines leading to cost savings. Vaccine availability at all times has increased to 99% in most health centres in India.
3. While instances of stock-outs have reduced by 80%, the time taken to replenish stocks has also decreased by more than half, on an average.

### 6.7 Holographic imaging

#### Why in News?

Scientists have developed a method using holographic imaging to detect both viruses and antibodies.

#### How it is done?

1. The method uses laser beams to record holograms of their test beads.
2. The surfaces of the beads are activated with biochemical binding sites that attract either antibodies or virus particles, depending on the intended test.
3. Binding antibodies or viruses causes the beads to grow by a few billionth parts of a metre.
4. Scientists then can detect this growth through changes in the beads' holograms.

#### Benefits of this method:

1. The test could be done in under 30 minutes.
2. It is highly accurate.

3. It can be performed by minimally trained personnel.

### What is holography?

It is a process that **creates three-dimensional images** called **holograms**.

This is done using **laser beams**, the properties of **interference and diffraction**, **light intensity recording**, and **illumination of the recording**.

The Hungarian-British physicist Dennis Gabor was awarded **the Nobel Prize in Physics in 1971** “for his invention and development of the holographic method”.

### Uniqueness of holographic images:

The images created so change according to the relative position of the individual viewer as if the objects displayed are actually present.

### Potential applications:

1. Military mapping.
2. Information storage.
3. Medical.
4. Fraud and security
5. Art.

## 6.8 Biofortification

### Why in News?

PM to dedicate to the Nation, 17 recently developed biofortified varieties of 8 crops.

### Significance:

These varieties, along with other food ingredients, will transform the normal Indian thali into nutri-thali. These crops will have up to 3.0-fold increase in nutritional value.

### What is biofortification?

It is the process of increasing nutritional value of food crops by increasing the density of vitamins and minerals in a crop **through either conventional plant breeding; agronomic practices or biotechnology**.

Examples of these vitamins and minerals that can be increased through biofortification include provitamin A Carotenoids, zinc and iron.

### How are crops fortified?

1. Conventional crop breeding techniques are used to identify varieties with particularly high concentration of desired nutrients.
2. These are cross-bred with varieties with other desirable traits from the target areas (such a virus resistance, drought tolerance, high yielding, taste) to develop biofortified varieties that

have high levels of micronutrients (for example, vitamin A, iron or zinc), in addition to other traits desired by farmers and consumers.

#### How does Biofortification differ from food fortification?

1. **Biofortification** increases the nutritional micronutrient content embedded in the crop being grown.
2. **Food fortification** increases the nutritional value of foods by adding trace amounts of micronutrients to foods during processing.

#### 6.9 New Shephard

1. It is a rocket system meant to take tourists to space successfully.
2. It has completed its seventh test launch recently.
3. The system is built by Amazon founder Jeff Bezos's space company called Blue Origin.
4. New Shephard has been named after astronaut Alan Shephard, the first American to go to space.
5. It offers flights to space over 100 km above the Earth and accommodation for payloads.
6. Essentially, it is a rocket system that has been designed to take astronauts and research payloads past **the Karman line** – the internationally recognised boundary of space.

#### 6.10 Encrypted Online Messages

##### Context:

India joins UK-led fight against encrypted online messages.

1. The UK and India are joined by the US, Canada, Australia, New Zealand and Japan.
2. It marks **an expansion of the so-called "Five Eyes" group of nations**, a global alliance on intelligence issues, to include India and Japan.

##### What's the demand?

The campaign is against **end-to-end encryption** of messages by social media giants such as Facebook, which they say hinder law enforcement by blocking all access to them.

The countries also asked companies to not to "blind themselves" to illegal activity on their platforms, including child abuse images.

##### What's the issue with end-to end encryption?

The signatories claimed that end-to-end encryption policies like those employed by the social media giant erode the public's safety online.

1. When end-to-end encryption is applied with no access to content, it severely undermines the ability of companies to take action against illegal activity on their own platforms.
2. It also prevents law enforcement investigating and prosecuting the most serious crimes being committed on these services such as online child sexual abuse, grooming and terrorist content.

### What is end-to-end encryption?

It means that the messages are visible only to the sender and the recipient, and not even to the tech company which provides it, for example, WhatsApp, or any third-party.

### How it works?

Encryption technology involves scrambling or jumbling of the data being transferred in such a way that it can be deciphered only by the sender and the receiver.

1. In the first step, when a sender sends a message, it is in the form of Plaintext that is ordinary readable text.
2. Next, as soon as the data gets onto the network, it gets encrypted that is a process of converting ordinary readable text into a code with the help of special keys.
3. Next, when the same data reaches its intended destination, it is decrypted that is a process of converting back the coded data to readable text with the help of special keys.

Finally, the intended receiver gets the message in the form of Cipher text that is the readable text obtained after decryption.

## 6.11 Cyber Crimes in India

### Context:

**National Cyber Security Coordinator** Lt Gen (Dr) Rajesh Pant recently made the following observations on Cyber Crimes in India:

1. Cyber crimes in India caused Rs 1.25 trillion loss in 2019.
2. Cyber threats will continue to increase as the country starts developing smart cities and rolling out 5G network, among other initiatives.
3. There are only a few Indian companies who are making some of the cyber security products and there is a big vacuum in the sector.
4. So, a dedicated industry forum for cyber security should be set up to develop trusted indigenous solutions to check cyber attacks.

### Steps taken by the Government to spread awareness about cyber crimes:

1. **Online cybercrime reporting portal** has been launched to enable complainants to report complaints pertaining to Child Pornography/Child Sexual Abuse Material, rape/gang rape

imageries or sexually explicit content.

2. A scheme for establishment of **Indian Cyber Crime Coordination Centre (I4C)** has been established to handle issues related to cybercrime in the country in a comprehensive and coordinated manner.
3. Establishment of **National Critical Information Infrastructure Protection Centre (NCIIPC)** for protection of critical information infrastructure in the country.
4. All organizations providing digital services have been mandated to report cyber security incidents to **CERT-In** expeditiously.
5. **Cyber Swachhta Kendra** (Botnet Cleaning and Malware Analysis Centre) has been launched for providing detection of malicious programmes and free tools to remove such programmes.
6. **Formulation of Crisis Management Plan** for countering cyber attacks and cyber terrorism.

#### What needs to be done ahead?

1. Regularly issue alerts/advisorie
2. Capacity building/training of law enforcement personnel/ prosecutors/ judicial officers.
3. Improving cyber forensics facilities etc.
4. Speed up investigation.

#### 6.12 NASA's OSIRIS-REx spacecraft

##### Context:

On October 20th, **NASA's OSIRIS-REx spacecraft** briefly touched **asteroid Bennu**, from where it is meant to collect samples of dust and pebbles and deliver them back to Earth in 2023.

##### OSIRIS-REx mission:

1. This is **NASA's first mission meant to return a sample from the ancient asteroid.**
2. Launched in 2016, it reached its target in 2018.
3. The departure window for the mission will open up in 2021, after which it will take over two years to reach back to Earth.

##### Asteroid Bennu:

The asteroid was discovered by a team from the NASA-funded **Lincoln Near-Earth Asteroid Research team in 1999.**

Scientists believe that it was **formed in the first 10 million years of the solar system's formation**, implying that it is **roughly 4.5 billion years old.**

1. Because of Bennu's age, **it is likely to contain material that contains molecules that**

were present when life first formed on Earth, where life forms are based on carbon atom chains.

2. Because of its **high carbon content**, the asteroid **reflects about four per cent of the light that hits it**, which is very low when compared with a planet like Venus, which reflects about 65 per cent of the light that hits it. **Earth reflects about 30 per cent.**
3. It classified as a **Near Earth Object (NEO)**, might strike the Earth in the next century, between the years 2175 and 2199.

#### Site for sample collection:

NASA has selected a site located in a crater high in Bennu's northern hemisphere designated "Nightingale".

#### Why are scientists studying asteroids?

1. To look for information about the formation and history of planets and the sun since asteroids were formed at the same time as other objects in the solar system.
2. To look for asteroids that might be potentially hazardous.

#### 6.13 National Supercomputing Mission (NSM)

It is being implemented and steered jointly by **the Department of Science and Technology (DST) and Department of Electronics and Information Technology (DeitY)**.

Implemented by **the Centre for Development of Advanced Computing (C-DAC), Pune and the Indian Institute of Science (IISc), Bengaluru.**


#### Focus of the mission:

1. The Mission envisages empowering national academic and R&D institutions spread over the country by installing a vast supercomputing grid comprising of more than 70 high-performance computing facilities.
2. These supercomputers will also be networked on the National Supercomputing grid over the National Knowledge Network (NKN).
3. The NKN is another programme of the government which connects academic institutions and R&D labs over a high speed network.
4. The Mission includes development of highly professional High Performance Computing (HPC) aware human resource for meeting challenges of development of these applications.

#### 6.14 COVIRAP

1. It is a **diagnostic machine** for COVID-19 detection.
2. Developed by researchers at the Indian Institute of Technology (IIT), Kharagpur.
3. The machine can be developed at a cost of less than ₹ 5000/- with a minimal infrastructural requirement.

4. The testing process in this new machine is completed within an hour.

<p><b>Novel solution</b>                  A look at how the new COVID-19 testing device works</p>	<p>it's mixed with another solution and reheated</p>
	<ul style="list-style-type: none"> <li>▪ A paper strip is dipped into reaction product</li> </ul>
<p><b>Virus alert:</b> Researchers with the COVIRAP device at IIT Kharagpur.                  ▪ SPECIAL ARRANGEMENT</p>	<ul style="list-style-type: none"> <li>▪ Coloured lines develop, like in a pregnancy kit, to indicate presence or absence of virus</li> </ul>
<ul style="list-style-type: none"> <li>▪ COVIRAP machine resembles a box and comes with a kit</li> </ul>	<ul style="list-style-type: none"> <li>▪ A smartphone app can grab image of the strip and convey results</li> </ul>
<ul style="list-style-type: none"> <li>▪ Kit has three master mixes which are markers of different genes to confirm the virus</li> </ul>	<ul style="list-style-type: none"> <li>▪ COVIRAP can deliver results in an hour</li> </ul>
<ul style="list-style-type: none"> <li>▪ RNA samples are extracted from <b>nasal swabs</b> and mixed with the master mix in tubes</li> </ul>	<p><b>DIFFERENCES WITH RT-PCR</b></p>
<ul style="list-style-type: none"> <li>▪ Tubes are put in the machine which is set at a specific temperature and programmed to run for a fixed period</li> </ul>	<ul style="list-style-type: none"> <li>▪ While RT-PCR machines can cost up to ₹25 lakh, the COVIRAP machine cost the IIT researchers only <b>₹5,000</b></li> </ul>
<ul style="list-style-type: none"> <li>▪ Once the heating is over,</li> </ul>	<ul style="list-style-type: none"> <li>▪ COVIRAP test kits cost about <b>₹500</b></li> </ul>
	<ul style="list-style-type: none"> <li>▪ RT-PCR needs to be operated by a molecular biologist</li> </ul>
	<ul style="list-style-type: none"> <li>▪ COVIRAP can be operated with minimal training</li> </ul>

**How it works?**

1. The machine employs an **isothermal nucleic acid amplification method**.
2. Once the sample was processed in the machine after being mixed with solutions developed by the IIT team, treated paper strips – similar to the pregnancy strips – are dipped into it, and the emergence of coloured lines will depict the presence of the virus.

**6.15 First room-temperature Superconductor**

Scientists have reported the discovery of the **first room-temperature superconductor**, after more than a century of waiting.

**How?**

The superconductor was formed by **squeezing carbon, hydrogen and sulfur between the tips of two diamonds** and **hitting the material with laser light to induce chemical reactions**.

At a **pressure about 2.6 million times that of Earth's atmosphere**, and temperatures below about 15° C, the electrical resistance vanished.

However, the new material's **superconducting superpowers appear only at extremely high**

pressures, limiting its practical usefulness.

**Why this discovery is significant?**

All superconductors **previously discovered had to be cooled**, many of them to very low temperatures, making them impractical for most uses.

But, the recently discovered superconductor **can operate at room temperature**- the material is superconducting below temperatures of about 15° Celsius.

**What are Superconductors?**

Superconductors transmit electricity without resistance, allowing current to flow without any energy loss.

When superconductivity was discovered in 1911, it was found only at temperatures close to absolute zero (-273.15° C).

**Potential applications:**

If a room-temperature superconductor could be used at atmospheric pressure, **it could save vast amounts of energy lost to resistance in the electrical grid.**

And it could improve current technologies, from MRI machines to quantum computers to magnetically levitated trains. Dias envisions that humanity could become a **“superconducting society.”**

## 6.16 Plasma Therapy

**Context:**

The **Indian Council of Medical Research (ICMR)** has been considering dropping the **plasma therapy** from the national guidelines as it found that **convalescent plasma was ineffective in arresting Covid-19.**

In **China and Netherlands** too, the plasma therapy yielded very little or no results.

**What is plasma therapy?**

Plasma is the liquid part of the blood. **Convalescent plasma**, extracted from the blood of patients recovering from an infection, is **a source of antibodies against the infection.**

The therapy involves using their plasma to help others recover.

**For Covid-19**, this has been one of the treatment options. The donor would have to be a documented case of Covid-19 and **healthy for 28 days since the last symptoms.**

**Way forward:**

Covid care is **individualised care.** Use of the right drugs in the right patient does work. Experts say use of convalescent therapy has saved some lives but concerns have been raised by the **PLACID trial.**

Therefore, the potential harms of the non-immune components of convalescent plasma should be



rigorously investigated, only donor plasma with detectable titers of neutralizing antibodies should be given to trial participants, to ensure that the potential for benefit exists for all intervention arm patients.

### 6.17 Water in Moon

#### Context:

Water molecules, discovered in **Clavius Crater in the Moon's southern hemisphere**.

1. And it is the first time water has been detected on the sunlit side, showing it is not restricted to the shadowy regions.
2. This was confirmed by NASA's **Stratospheric Observatory for Infrared Astronomy (SOFIA)**.

#### Significance of the discovery:

Apart from being a **marker of potential life**, water is a precious resource in deep space.

1. For astronauts landing on the Moon, water is necessary not only to sustain life but also for purposes such as generating rocket fuel.
2. If space explorers can use the Moon's resources, it means they need to carry less water from Earth.

#### How could the water have formed?

1. **Space rocks** carrying small amounts of water could have bombarded the Moon.
2. Alternatively, **the Sun's solar wind could have carried hydrogen**, which then **reacted with minerals in the lunar soil** to create hydroxyl, which later transformed into water.

#### SOFIA:

SOFIA is a **modified Boeing 747SP jetliner** that flies at altitudes up to 45,000 feet.

It is a **joint project of NASA and the German Aerospace Center**.

1. It has an infrared camera that picks up the wavelength unique to water molecules.
2. SOFIA's mission is **to look at dark and distant objects**. The Moon, on the other hand, is so close and bright that it fills the SOFIA guide camera's entire field of view.

#### Chandrayaan-1 and water discovery:

ISRO's Chandrayaan-1 mission has already provided evidence for the existence of water. In 2009, **the Moon Mineralogy Mapper (M3) instrument aboard Chandrayaan-1** found water molecules in the polar regions.

#### What next?

**SOFIA** will look for water in additional sunlit locations to learn more about how the water is produced, stored, and moved across the Moon.

Meanwhile, **NASA's Volatiles Investigating Polar Exploration Rover (VIPER)** will carry out a

mission to create the first water resource maps of the Moon.

## SOCIAL ISSUES AND DEVELOPMENT

### 7.1 NCRB reports on crime

The National Crime Records Bureau (NCRB) has released the annual Crime in India 2019 report.

#### Key findings:

1. **Increase in crimes against members of the Scheduled Castes (SCs) and the Scheduled Tribes (STs):** There is an increase of over 7% and 26% in 2019 compared with the 2018 figures.
2. **Increase of 1.6% in the registration** of cases over 2018.
3. **Uttar Pradesh recorded the highest number** of crimes against the SCs in 2019, followed by Rajasthan and Bihar.
4. **Madhya Pradesh recorded the highest number of cases against STs**, followed by Rajasthan, and Odisha.
5. **In the number of cases of rape of women belonging to the SCs**, Rajasthan topped the list followed by Uttar Pradesh and Madhya Pradesh.
6. Madhya Pradesh recorded the highest number of cases against the STs, followed by Rajasthan and Odisha.
7. The **highest number of incidents of rape of tribal women** was registered in Madhya Pradesh.

#### Overall crimes against women:

A total of 4,05,861 cases of crime against women were registered in 2019 compared to 3,78,236 cases in 2018, showing an increase of 7.3%.

#### Cybercrimes:

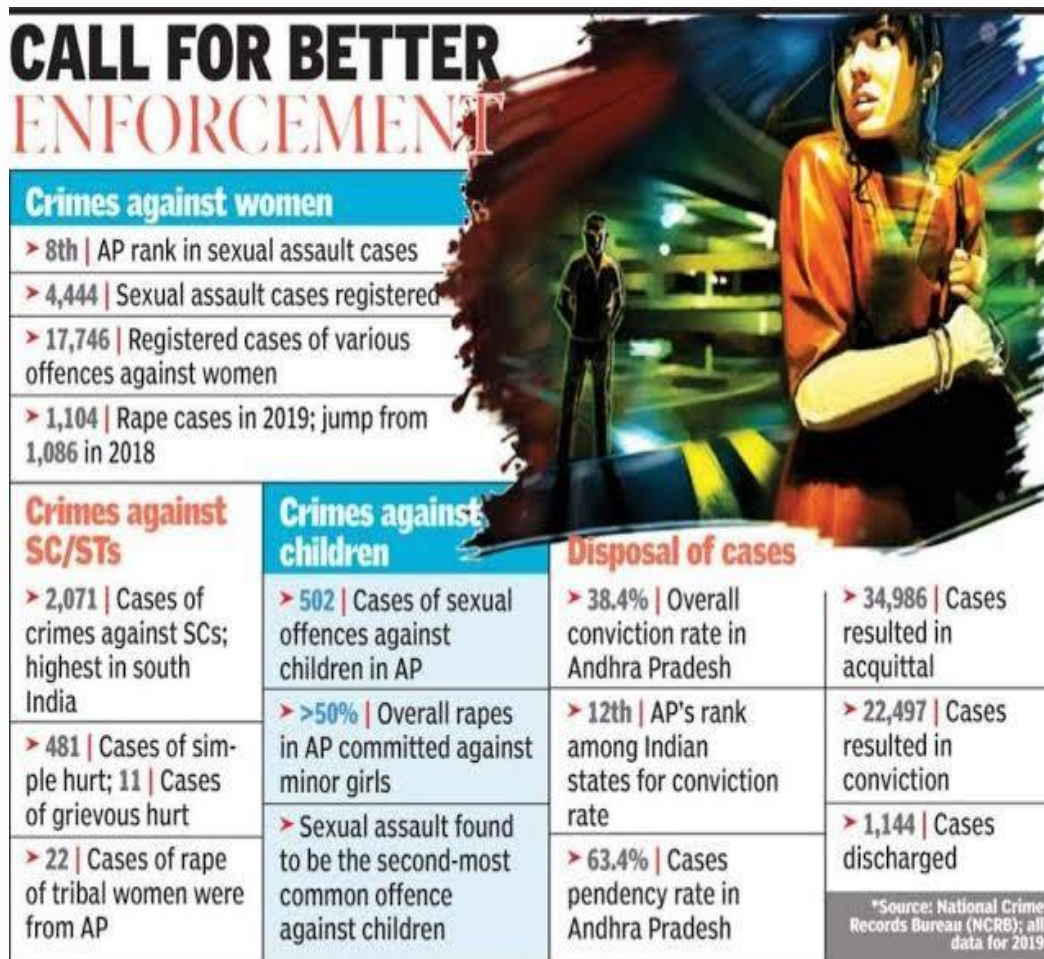
Increased by 63.5% in 2019. Out of this, 60.4% of cybercrime cases registered were for the motive of fraud, followed by sexual exploitation, with 5.1%.

#### Drawbacks of the survey:

**Commonwealth Human Rights Initiative (CHRI)**, a police reforms advocacy group, said few cases were being registered for specific discriminatory action against SCs and STs.

1. The low percentage of cases registered indicates that very few cases alleging specific discriminatory actions on the basis of caste and tribal identity that are defined as atrocities under Section 3 of the **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities Act), 1989** are being registered on their own.

2. Such actions are registered mainly when accompanied by any of the IPC offences.
3. Also, there is no data on total complaints received on crimes against the Scheduled Castes.



## 7.2 Ambedkar Social Innovation and Incubation Mission

**Launched by:** Ministry of Social Justice and Empowerment.

**Launched under:** Venture Capital Fund for SCs.

**Objectives:**

1. To promote entrepreneurship among the SC Youth with special preference to Divyangs;
2. To support (1,000) innovative ideas till 2024 through a synergetic work with the Technology Business Incubators (TBIs) set up by Department of Science and Technology;
3. To support, promote, hand-hold the start-up ideas till they reach commercial stage

by providing liberal equity support; and

4. To incentivise students with innovative mind-set to take to entrepreneurship with confidence.

**Benefits:**

- 1,000 SC youth would be identified in the next 4 years with start-up ideas through the Technology Business Incubators (TBIs) in various higher educational institutions.
- They will be funded @ Rs. 30 lakhs in 3 years as equity funding so that they can translate their start-up ideas into commercial ventures.
- Successful ventures would further qualify for venture funding of up to Rs. 5 Crore from the Venture Capital Fund for SCs.

**Who is eligible for support under ASIIM?**

- Youth who have been identified by the TBIs being promoted by Department of Science & Technology.
- Youth who are identified for incubation by reputed private TBIs.
- Students who have been awarded under the Smart India Hackathon or Smart India Hardware Hackathon being conducted by Ministry of Education.
- Innovative ideas focusing on the socio-economic development of the society identified in the TBIs.
- Start-ups nominated and supported by corporates through CSR funds.

**What is Venture Capital Fund for SCs (VCF-SC)?**

- Launched by the Ministry of Social Justice in 2014-15 with a view of developing entrepreneurship amongst the SC/Divyang youth and to enable them to become 'job-givers'.
- The Objective of this fund is to provide concessional finance to the entities of the SC entrepreneurs.

**7.3 SWAMITVA Scheme**

**Why in News?**

Prime Minister Narendra Modi recently launched the physical distribution of property cards under the scheme.

This launch will enable nearly one lakh property holders to download their property cards through SMS on their mobile phones and pave the way for villagers to use property as a financial asset for taking loans and other financial benefits.

**SVAMITVA scheme:**

1. Launched by PM Modi in April this year with the aim to update rural land records, providing record of rights to village households and issue property cards.
2. It is a central scheme of the Ministry of Panchayati Raj and Rural Development.
3. The scheme focuses on mapping rural-inhabited lands using drones as land records are inaccurate or do not exist for vast areas across India.

**Property cards:**

Property card for every property in the village will be prepared by states using accurate measurements delivered by drone-mapping. These cards will be given to property owners and will be recognised by the land revenue records department.

**7.4 World Bank ‘Beaten or Broken’ report**

**Context:**

The report analyses the impact of school closures because of Covid on children.

**Key findings:**

1. South Asia region stands to lose USD 622 billion from the school closures in the present scenario or up to USD 880 billion in a more pessimistic scenario.
2. While the regional loss is largely driven by India, all countries will lose substantial shares of their GDP.
3. South Asia is set to plunge into its worst-ever recession in 2020 as the devastating impacts of COVID-19 on the region’s economies linger.
4. Temporary school closures in all South Asian countries have kept 391 million students out of school in primary and secondary education, further complicating efforts to resolve the learning crisis.
5. The pandemic may cause up to 5.5 million students to drop out from the education system and cause substantial learning losses, which will have a lifetime impact on the productivity of a generation of students.
6. The projected learning loss for the region is 0.5 years of learning-adjusted years of schooling (LAYS), falling from 6.5 LAYS to 6.0 LAYS, an enormous setback from recent advances in schooling.
7. Based on country data on household labor incomes, the average child in South Asia may lose USD 4,400 in lifetime earnings once having entered the labour market, equivalent to 5 percent of total earnings.

**‘Learning Adjusted Year of Schooling’ (LAYS) concept:**

Introduced by the World Bank, it seeks to combine access and learning outcomes into a single

measure.

It combines quantity (years of schooling) and quality (how much kids know at a given grade level) into a single summary measure of human capital in a society.

#### **How Covid 19 will affect labour productivity?**

1. Increased integration of the global economy will amplify the adverse impact of COVID-19.
2. Contagion prevention and physical distancing may render some activities, for example the hospitality sector, unviable unless they are radically transformed, which will take time.
3. Disruptions to training, schooling and other education in the event of severe income losses, even once restrictions are lifted, will also lower human capital and labour productivity over the long term.

#### **Indian scenario:**

The prolonged closure of schools may cause a loss of over USD 400 billion in the country's future earnings, besides substantial learning losses.

### **7.5 Tech for Tribals**

TRIFED, IIT Kanpur and Chhattisgarh MFP Federation E-Launch "Tech for Tribals" Initiative.

#### **What is it?**

It is a programme by **TRIFED**, in collaboration with **the Ministry of Small and Medium Enterprises (MSME)** under **the Entrepreneurship and Skill Development Programme (ESDP)** programme

It aims at the holistic development of tribals with a focus on entrepreneurship development, soft skills, IT, and business development through SHGs operating through **Van Dhan Vikas Kendras (VDVKs)**.

#### **What are Van Dhan Kendras?**

TRIFED under the Ministry of Tribal Affairs is establishing 1,200 "Van Dhan Vikas Kendra (VDVK)", across 28 States engaging 3.6 Lakhs Tribal Forest Produce gatherers.

One typical VDVK comprises of 15 Self Help Groups, each consisting of 20 Tribal gatherers.

#### **Van Dhan Vikas Kendras initiative:**

1. The initiative aims to promote MFPS-centric livelihood development of tribal gatherers and artisans.
2. It mainstreams the tribal community by promoting primary level value addition to MFP at grassroots level.
3. **Significance:** Through this initiative, the share of tribals in the value chain of Non-Timber Forest Produce is expected to rise from the present 20% to around 60%.

## 7.6 Domestic Violence Law

### Context:

The Supreme Court recently delivered a judgement in which it held that the relief granting **right to residence to a married woman** under the domestic violence law by a criminal court is “relevant” and **can be considered even in civil proceedings seeking her eviction from the matrimonial home.**

Alongside, the Court termed **the 2005 law on protection of women from domestic violence** as a “milestone”

### Important observations made by the Court:

Despite the 2005 law, offences against women is “rampant” in this country and they face “violence in some form or the other on almost every day”.

A woman resigns her fate to the never ending cycle of enduring violence and discrimination as a daughter, a sister, a wife, a mother, a partner or a single woman in her lifetime.

Non-retaliation by women against violence, coupled with the absence of laws addressing women’s issues, ignorance of the existing laws enacted for them and societal attitude makes them vulnerable.

### What is Protection of Women from Domestic Violence Act 2005?

It is an act to provide more effective protection of the rights of Women guaranteed under the Constitution who are victims of violence of any kind occurring within the family and for matters connected therewith or incidental thereto.

It is the first significant attempt in India to recognise domestic abuse as a punishable offence, to extend its provisions to those in live-in relationships, and to provide for emergency relief for the victims, in addition to legal recourse.

### Conclusion:

The progress of any society depends on its ability to protect and promote the rights of its women. Guaranteeing equal rights and privileges to women by the Constitution of India had marked the step towards the transformation of the status of the women in this Country.

## 7.7 Saral Jeevan Bima

It is a standard **individual term life insurance product** unveiled recently by **the Insurance Regulatory and Development Authority (IRDAI).**

1. This will help customers make an informed choice and reduce mis-selling.
2. All life insurers will have to offer the standard product by January 1, 2021.

### Key features of the product- Saral Jeevan Bima:

1. It will be a non-linked, non-participating individual pure risk premium life insurance plan providing for **payment of the sum assured in lump sum to the nominee in case of the**

**insured's death during the policy term.**

2. **Eligibility:** The plan will be for those in the 18-65 years age group.
3. **Policy term** will be 5-40 years.
4. It allows for a maximum maturity age of 70 years.
5. **Sum assured** will be a minimum of ₹5 lakh and a maximum of ₹25 lakh. Insurers, however, have the option of offering sum assured beyond ₹25 lakh with all other terms and conditions remaining the same.
6. **No restrictions:** The product shall be offered to individuals without restrictions on gender, place of residence, travel, occupation or educational qualifications.
7. **There will be only one exclusion under the policy** – exclusion for suicide.
8. **There will be no maturity benefit.** Neither will there be any surrender value nor can any loan be taken against the product.
9. The policy will also offer **optional Accident Benefit and Permanent Disability Rider.**

**Why this product? Don't we already have enough insurance products in the market?**

There are many term products in the market with varying terms and conditions. But, Customers who cannot devote adequate time and energy to make informed choices find it difficult to select the right product. Therefore, It was felt necessary to introduce a standard, individual life insurance product with simple features and standard terms and conditions. Mandatory pure life insurance will also help in inclusion and insurance penetration in the country.

## 7.8 Chapter Proceedings

**Context:**

The Mumbai police last week began “chapter proceedings” against Republic Editor-in-Chief Arnab Goswami.

**What exactly are “chapter proceedings”?**

They are preventive actions taken by the police if they fear that a particular person is likely to create trouble and disrupt the peace in society.

Here, the police can issue notices under sections of the Code of Criminal Procedure to ensure that the person is aware that creating nuisance could result in action against him, which includes paying a fine, in the absence of which, he could be put behind bars.

**Procedure:**

1. A notice is issued to a person under **section 111 of the CrPC** whereby he is asked to present himself before **the Executive Magistrate** – an ACP-rank officer in a commissionerate of a deputy collector in rural areas – who has issued the notice.
2. The person has to explain why he should not be made to **sign a bond of good behaviour.**



3. If the Executive Magistrate is not satisfied with the answer, **the person is asked to sign a bond of good behaviour and produce sureties vouching for his/her good behaviour.**
4. **A fine amount is also decided** – in accordance with the crime and the person's financial capability – which the person would have to pay if he violates the conditions set in the bond.

#### Legal options to appeal against the notice?

A person can appeal the notice before the courts.

### 7.9 Global Hunger Index

The report is a peer-reviewed publication released **annually by Welthungerhilfe and Concern Worldwide.**

#### How are Countries ranked?

The GHI scores are based on a formula that captures three dimensions of hunger—insufficient caloric intake, child undernutrition, and child mortality—using four component indicators:

1. **UNDERNOURISHMENT:** the share of the population that is under-nourished, reflecting insufficient caloric intake
2. **CHILD WASTING:** the share of children under the age of five who are wasted (low weight-for-height), reflecting acute undernutrition.
3. **CHILD STUNTING:** the share of children under the age of five who are stunted (low height-for-age), reflecting chronic undernutrition.
4. **CHILD MORTALITY:** the mortality rate of children under the age of five.

#### Score:

The GHI **ranks countries on a 100-point scale**, with 0 being the best score (no hunger) and 100 being the worst. Values less than 10 reflect low hunger, values from 20 to 34.9 indicate serious hunger; values from 35 to 49.9 are alarming; and values of 50 or more are extremely alarming.

#### Key findings:

1. India has **the highest prevalence of wasted children under five years in the world**, which reflects acute undernutrition.
2. India ranks 94 out of 107 countries in the Index, lower than her neighbours such as Bangladesh (75) and Pakistan (88).
3. The report put India under serious category with the score of 27.2.
4. The child stunting rate in India was 37.4 %.
5. The child wasting was at 17.3 %.

6. The undernourishment rate of India was at 14% and child mortality at 3.7 %.

**What is the main cause for such high levels of child stunting and wasting in India?**

1. **Poor maternal health:** South Asian babies show very high levels of wasting very early in their lives, within the first six months. This reflects the poor state of maternal health.
2. **Mothers are too young, too short, too thin and too undernourished themselves,** before they get pregnant, during pregnancy, and then after giving birth, during breast-feeding.
3. **Poor sanitation** is another major cause of child wasting and stunting.

### 7.10 Affordability of nutritious diet in rural India

**Context:**

It is a study authored by **International Food Policy Research Institute** economist Kalyani Raghunathan and others.

**Key findings:**

1. Selecting the cheapest options from actual Indian diets – wheat, rice, bajra, milk, curd, onions, radish, and spinach, bananas– the study calculated that **a day's meals would cost ₹45 (or ₹51 for an adult man).**
2. **Three out of four rural Indians cannot afford a nutritious diet.** Even if they spent their entire income on food, almost two out of three of them would not have the money to pay for the cheapest possible diet that meets the requirements.
3. If they set aside just a third of their income for non-food expenses, **76% of rural Indians would not be able to afford the recommended diet.** This does not even account for the meals of non-earning members of a household, such as children or older adults.

**Significance of the study:**

The findings are significant in the light of the fact that India performs abysmally on many nutrition indicators even while the country claims to have achieved food security.

1. The latest Global Hunger Index showed that India has **the world's highest prevalence of child wasting**, reflecting acute undernutrition.
2. On indicators that simply measure calorie intake, India performs relatively better, but they do not account for the nutrition value of those calories.

**India's Nutrition Guidelines:**

The National Institute for Nutrition's guidelines for a nutritionally adequate diet call for adult women to eat 330 gm of cereals and 75 gm of pulses a day, along with 300 gm of dairy, 100 gm of fruit, and 300 gm of vegetables, which should include at least 100 gm of dark green leafy vegetables.

### The methodology used:

Unlike the Economic Survey's 'Thalinomics', which provided a rosier picture of meal costs, this study uses **the wages of unskilled workers** who make up a larger proportion of the population than industrial workers, and **includes items such as dairy, fruit and dark green leafy vegetables that are essential as per India's official dietary guidelines.**

### 7.11 Ghar Tak Fibre

#### Context:

As per government data, 'Ghar Tak Fibre' scheme is off to a slow start in **Bihar, the first state that aims to connect all its 45,945 villages by March 31.**

#### Status:

To connect all villages by March 31, the state would need to dig trenches, lay cables, and provide connectivity to an average of 257 villages daily, or a monthly average of over 7,500 villages.

However, nearly a month after the scheme was inaugurated, optical fibre cable has been laid only in 4,347 villages as of October 14, or at the rate of 181 villages per day.

#### About the scheme:

Launched in September this year.

It aims to connect all the villages with high-speed internet.

**Targets:** Under the scheme, Bihar has to provide at least five **fibre-to-the-home (FTTH) connections** per village, while there should also be at least one WiFi hotspot per village.

**Implementation:** The project will be jointly executed by the Department of Telecom (DoT), ministry of Electronics & Information Technology and Common Service Centres (CSC).

### 7.12 Ayushman Sahakar

It is a scheme **to assist cooperatives play an important role in creation of healthcare infrastructure** in the country.

#### Formulated by:

**National Cooperative Development Corporation (NCDC)**, an autonomous development finance institution under the Ministry of Agriculture and Farmers Welfare.

#### Key features and implementation of the scheme:

1. NCDC will extend **term loans to prospective cooperatives.**

2. A fund will be created for the purpose.
3. Any Cooperative Society with suitable provision in its byelaws to undertake healthcare related activities would be able to access the NCDC fund.
4. **NCDC assistance will flow either through the State Governments/ UT Administrations or directly to the eligible cooperatives.**
5. The scheme also **provides working capital and margin money** to meet operational requirements.
6. The scheme provides **interest subvention of one percent to women majority cooperatives.**

### **Cooperatives in healthcare and why focus on them?**

There are about 52 hospitals across the country run by cooperatives. They have cumulative bed strength of more than 5,000.

By virtue of their strong presence in rural areas, cooperatives utilizing the scheme would bring revolution in comprehensive health care services.

#### **Benefits of the scheme:**

COVID 19 pandemic has brought into focus the requirement of creation of more facilities.

1. Therefore, NCDC's scheme will be a step towards strengthening farmers welfare activities by the Central Government.
2. With this scheme, villagers will get many facilities including hospitals, medical colleges.

#### **In line with the National Health Policy, 2017:**

The scheme aligns itself with the focus of the National Health Policy, 2017, covering the health systems in all their dimensions- investments in health, organization of healthcare services, access to technologies, development of human resources, encouragement of medical pluralism, affordable health care to farmers etc.

### **7.13 India's first seaplane service**

**India's first seaplane service** in Gujarat is set to begin from 31 October, the anniversary of Sardar Vallabhbhai Patel.

1. It will **connect Sabarmati Riverfront in Ahmedabad to the Statue of Unity in Kevadia.**
2. The service will be **operated by Spicejet Airlines.**

#### **Significance of seaplane projects and the potential:**

1. **Given the large and small waterbodies** that dot the country, India provides an ideal opportunity for seaplane operations.

2. Unlike a conventional aircraft, a seaplane can land both on a waterbody and on land, thereby opening up more opportunities for business and tourism.
3. Such projects provide faster and hassle free travel option for the long, treacherous and hilly regions of the country.

#### **Environmental concerns:**

The water aerodrome is not a listed project/activity in the Schedule to **the Environmental Impact Assessment Notification, 2006 and its amendments.**

However, the Expert Appraisal Committee was of the opinion that the activities proposed under **the water aerodrome project may have a similar type of impact as that of an airport.**

#### **Positive impact on the environment:**

During seaplane operations, there will be **turbulence created in the water while takeoff and landing of seaplanes.**

1. This will lead to more operation process i.e. **mixing of oxygen in the water.**
2. This will have a positive impact on the aquatic ecosystem near seaplane operations **increasing oxygen content and decreasing carbon content in this system.**

#### **How are these services regulated?**

**Inland Waterways Authority of India (IWAI)** will manage the Project of Seaplane in Inland Waterways and **Sagarmala Development Company Limited (SDCL)** will manage the Projects of seaplane in Coastal Areas.

IWAI and SDCL will coordinate with the Ministry of Shipping, flight operators, Ministry of Tourism as well as DGCA.

### **7.14 Annual State of Education Report (ASER) survey**

#### **Context:**

Findings of **the Annual State of Education Report (ASER) survey** conducted in **September.**

The survey provides a **glimpse into the levels of learning loss that students in rural India are suffering, with varying levels of access to technology, school and family resources, resulting in a digital divide in education.**

#### **ASER:**

ASER is a **nationwide survey of rural education and learning outcomes in terms of reading and arithmetic skills.**

It has been **conducted by the NGO Pratham** for the last 15 years. This year, the survey was conducted via phone calls.

#### **Key findings- impact of Covid- 19 Pandemic:**

1. About **20% of rural children have no textbooks at home.** In Andhra Pradesh, less than

35% of children had textbooks. More than 98% had textbooks in West Bengal, Nagaland and Assam. In the week of the survey, **about one in three rural children had done no learning activity at all.**

2. About two in three had **no learning material or activity given by their school that week**, and only one in 10 had **access to live online classes**.
3. **3% of rural children aged 6-10 years had not yet enrolled in school this year**, in comparison to just 1.8% in 2018.
4. Enrolment patterns also show a **slight shift toward government schools**, with private schools seeing a drop in enrolment in all age groups.

### 7.15 Permanent Commission for Women in Indian Navy

#### Context:

The Supreme Court has allowed the Union government time till December 31 to implement its March 17 judgment, which upheld **the right of women naval officers to be considered for permanent commission.**

#### Supreme Court March 17 judgement:

The Court had upheld **the right of serving Short Service Commission (SSC) women officers of the Navy to be granted permanent commission (PC)** on a par with their male counterparts.

The judgment was based on a case filed by 17 women SSC officers who were denied PC and discharged despite completing 14 years of service as SSC officers.

#### Observations made by the Supreme Court:

1. Women officers have worked shoulder to shoulder with their men counterparts in every walk of service.
2. Therefore, the “101 excuses” devised by the government, including motherhood and physiological limitations, reeked of a stereotypical mindset.
3. And women naval officers cannot be denied the right to equal opportunity and dignity entitled to under the Constitution on specious grounds such as physiology, motherhood and physical attributes.

#### Implications of the judgment:

1. Women naval officers will now be eligible to apply for permanent commission.
2. All serving women short service commission (SSC) officers in at least seven wings, including the executive, engineering, electrical, education, law and logistics, will be eligible to apply.
3. The grant of PCs will be subject to: (i) availability of vacancies in the stabilised cadre; (ii) Suitability of the candidate; and (iii) recommendation by the chief of Naval Staff.

### ENVIRONMENT

## 8.1 Zombie Fires

### Why in News?

'Zombie fires' becoming more frequent in Arctic in addition to fires occurring in the once-frozen tundra.

### What are they?

A zombie fire is a fire that continues to burn underground and then reignites on the surface after a period of time.

### What's the concern now?

Fires in the Arctic are spreading to areas which were formerly fire-resistant. The tundra – north of the Arctic Circle – is drying up and vegetation there like moss, grass, dwarf shrubs, etc are starting to catch fire.

The fires and record temperatures have the potential of turning the carbon sink into a carbon source and increasing global warming.

### Need of the hour:

1. There is an urgent need to understand the nature of fires in the Arctic which are evolving and changing rapidly.
2. The issue needs to be taken up as an issue of global importance.
3. There is a need for global cooperation, investment and action in monitoring fires.
4. Also needed it the learning from indigenous people of the Arctic about how fire was traditional used.
5. New permafrost- and peat-sensitive approaches to wildland fire fighting are also needed to save the Arctic.

## 8.2 Xoo infection

### Why in News

Recently, scientists from the **Centre for Plant Molecular Biology (CPMB)** have uncovered the mechanism by which a bacterium called Xoo interacts with rice plants and causes disease.

### Key Points

**About:** *Xanthomonas oryzae* pv. *oryzae* (Xoo) causes a **serious bacterial leaf blight disease in rice**.

It is also known as **Bacterial blight**. Xoo is a **gram-negative bacteria**.

**Transmission:** Xoo infection **causes huge yield losses** to rice cultivation throughout the world.

Xoo infection initiates from the leaf sheath and eventually spreads to mature leaves through the water flow under optimum temperature and high humidity conditions (**Vascular disease**).

Since **rice paddies are flooded** throughout most of the growing season, Xoo may easily spread among crops; bacteria travel through the water from infected plants to the roots and leaves of neighbouring rice plants.

**Wind** may also help spread the Xoo bacteria to other crops and rice paddies.

**Impact on Other Crops:**

In addition to rice, Xoo **may infect other plants**, such as rice cut-grass (*Leersia oryzoides*), Chinese sprangletop (*Leptochloa chinensis*), and common grasses and weeds.

**Prevention:**

The **most-common method of defending against rice bacterial blight** is the **cultivation of rice varieties with genes that confer resistance to Xoo infection**.

Over 30 resistance genes, termed **Xa1 to Xa33**, have been identified in rice plants, and some, such as Xa21, have been integrated into the genomes of commercial rice strains.

However, this method **involves breeding or gene manipulation techniques** that are laborious and time-consuming.

Also, the introduced resistance genes **provide only race-specific resistance** that will prevent infections by only specific strains of Xoo.

**8.3 Study on Amazon forest**

**Context:**

A study was conducted on the state of Amazon Forests under Global Fire Emissions Database project run by NASA. The report has been released.

**Key findings:**

1. Fires in the Amazon region in 2019 were unprecedented in their destruction. Thousands of fires had burned more than 7,600 square kilometres by October that year. But, fires in the Amazon in 2020 surpassed those of 2019.
2. Despite the surge in fires, international attention has waned in 2020, likely due to the COVID-19 pandemic.
3. As of 2019, an estimated 17 per cent of the Amazon's forest cover has been clear-cut or burned since the 1970s.

**What are the concerns now?**

1. As the rainforest bleeds biomass through deforestation, it loses its ability to capture carbon from the atmosphere and releases carbon through combustion.
2. If the annual fires burning the Amazon are not curtailed, one of the world's largest carbon sinks will progressively devolve into a carbon faucet, releasing more carbon dioxide than it



sequesters.

#### **Forests to semi-arid Savannah:**

Many researchers predict that deforestation is propelling the Amazon towards a tipping point, beyond which it will gradually **transform into a semi-arid savanna**.

If the deforestation of the rainforest continues past a threshold of 20-25 per cent total deforestation, multiple positive feedback loops will spark the desertification of the Amazon Basin.

#### **Why Amazon is significant?**

Amazon rainforest covers approximately eight million square kilometres – an area larger than Australia – and is home to an astounding amount of biodiversity.

It helps balance the global carbon budget by absorbing carbon dioxide from the atmosphere, and plays a key role in the global water cycle, stabilizing global climate and rainfall.

#### **Spread of Amazon:**

1. These are large tropical rainforest occupying the drainage basin of the Amazon River and its tributaries in northern South America and covering an area of 6,000,000 square km.
2. Comprising about 40% of Brazil's total area, it is bounded by the Guiana Highlands to the north, the Andes Mountains to the west, the Brazilian central plateau to the south, and the Atlantic Ocean to the east.
3. **The basin is shared by eight countries** (Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname), as well as the overseas territory of French Guiana.

### **8.4 Bio decomposer solution to prevent stubble burning**

#### **Context:**

Delhi Chief Minister Arvind Kejriwal has announced that the Delhi government will start spraying **bio-decomposer solution** prepared by Pusa Research Institute from October 11 to **prevent stubble burning**.

#### **What's the plan?**

1. Pusa Research Institute has developed capsules containing bio-decomposers.
2. These capsules are mixed with a solution.
3. When applied on fields, it dissolves the stem of stubble, converts it into compost, fertility of land increases and less fertiliser is used.
4. Delhi government will provide the solution to farmers free of cost and spray it in farms.
5. The solution will help in the disposal of stubble, without the involvement of stubble burning.

### How were these bio-decomposers formed?

Pusa Decomposer is a **mix of seven fungi** that produce enzymes to digest cellulose, lignin and pectin in paddy straw.

The fungi thrive at 30-32 degree Celsius, which is the temperature prevailing when paddy is harvested and wheat is sown. The IARI has commercialised the technology. It has licensed six companies.

### 8.5 Reforms to push Natural Gas

#### Context:

The Cabinet has approved the reforms to push the usage of Natural Gas.

#### The reforms:

1. The government will initiate **standardised e-bidding** for bringing transparency in the price of Natural Gas in the country.
2. **Affiliate companies will be allowed to participate in the bidding process** in view of the open, transparent and electronic bidding. This will facilitate and promote more competition in marketing of gas.
3. Marketing freedom will be granted to **the Field Development Plans (FDPs)** of those Blocks in which **Production Sharing Contracts** already provide pricing freedom.

#### Natural Gas:

Natural gas is **the cleanest fossil fuels among the available fossil fuels**.

It is a **naturally occurring hydrocarbon gas mixture consisting primarily of methane**, but commonly including varying amounts of other higher alkanes, and sometimes a small percentage of carbon dioxide, nitrogen, hydrogen sulfide, or helium.

It is a **potent greenhouse gas** itself when released into the atmosphere, and **creates carbon dioxide during oxidation**.

#### Uses:

1. It is used as a feedstock in the manufacture of fertilizers, plastics and other commercially important organic chemicals as well as used as a fuel for electricity generation, heating purpose in industrial and commercial units.
2. Natural gas is also used for cooking in domestic households and a transportation fuel for vehicles.

### 8.6 Abortelphusa Namdaphaensis

1. It is a **new freshwater crab species** found recently on the edge of a small stream in Namdapha Tiger Reserve.

2. The genus (**Abortelphusa**) is named after the **Abor Hills**, the species (**Namdaphaensis**) is named after **Namdapha**.
3. Namdapha is known for its rich biodiversity, and believed to be the rare area that harbours **four large cats**: tigers, snow leopards, clouded leopards and leopards.

### 8.7 Stockholm Convention

#### Context:

Union Cabinet has approved the Ratification of **seven chemicals** listed under the **Stockholm Convention** on Persistent Organic Pollutants (POPs).

The Cabinet has also delegated its **powers to ratify chemicals** under the Stockholm Convention to the Union Ministers of External Affairs (MEA) and Environment, Forest and Climate Change (MoEFCC) in respect of POPs already regulated under the domestic regulations.

#### These are:

1. Chlordecone.
2. Hexabromobiphenyl.
3. Hexabromodiphenyl ether and Heptabromodiphenylether.
4. Tetrabromodiphenyl ether and Pentabromodiphenyl ether.
5. Pentachlorobenzene.
6. Hexabromocyclododecane.
7. Hexachlorobutadiene.

#### Benefits for India:

The ratification process would enable India to access **Global Environment Facility (GEF)** financial resources in updating the National Implementation Plan (NIP).

#### Stockholm Convention on POPs:

Signed in 2001 and **effective from May 2004** (Ninety days after the ratification by at least 50 signatory states).

Aims to **eliminate or restrict** the production and use of **persistent organic pollutants (POPs)**.

#### What are POPs?

In 1995, the Governing Council of the United Nations Environment Programme (UNEP) called for global action to be taken on POPs, which it defined as “**chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment**”.

#### Uniqueness of POPs:

1. POPs are **lipophilic**, which means that they accumulate in the fatty tissue of living animals and human beings.

2. **In fatty tissue**, the concentrations can become magnified by up to 70 000 times higher than the background levels.
3. As you move up the food chain, concentrations of POPs tend to increase so that animals at the top of the food chain such as fish, predatory birds, mammals, and humans tend to have the greatest concentrations of these chemicals.

#### **The 12 initial POPs under the Stockholm Convention:**

Initially, twelve POPs have been recognized as causing adverse effects on humans and the ecosystem and these can be placed in 3 categories:

1. **Pesticides:** aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
2. **Industrial chemicals:** hexachlorobenzene, polychlorinated biphenyls (PCBs); and
3. **By-products:** hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

Since then, additional substances such as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and certain brominated flame-retardants, as well as organometallic compounds such as tributyltin (TBT) have been added to the list of Persistent Organic Pollutants.

#### **Sources of POPs:**

1. Improper use and/or disposal of agrochemicals and industrial chemicals.
2. Elevated temperatures and combustion processes.
3. Unwanted by-products of industrial processes or combustion.

#### **Is it legally binding?**

Yes. **Article 16** of the Convention requires that effectiveness of the measures adopted by the Convention is evaluated in regular intervals.

#### **Other Conventions dealing with POPs:**

Convention on Long-Range Transboundary Air Pollutants (LRTAP), Protocol on Persistent Organic Pollutants (POPs).

### **8.8 Graded Response Action Plan**

#### **Context:**

The **Environment Pollution (Prevention & Control) Authority** has directed Delhi, Punjab, Haryana and Rajasthan to implement air pollution control measures under “very poor” and “severe” category air quality of the Graded Response Action Plan from October 15.

#### **GRAP:**

**Approved by the Supreme Court** in 2016.

The plan was **prepared by EPCA**.

It works only as an emergency measure.

1. As such, the plan does not include action by various state governments to be taken throughout the year to tackle industrial, vehicular and combustion emissions.
2. When the air quality shifts from poor to very poor, the measures listed have to be followed since the plan is incremental in nature.

#### Overview of the plan:

1. The plan requires action and coordination among 13 different agencies in Delhi, Uttar Pradesh, Haryana and Rajasthan (NCR areas).
2. At the head of the table is the EPCA, mandated by the Supreme Court.
3. Before the imposition of any measures, EPCA holds a meeting with representatives from all NCR states, and a call is taken on which actions has to be made applicable in which town.

### 8.9 Tree Transplantation Policy

#### Context:

Delhi Cabinet has given its nod for 'Tree Transplantation Policy'. With this, Delhi has become **the first State in India to pass this policy**.

#### Highlights of the policy:

1. Agencies concerned will have to **transplant 80 per cent of the trees affected by their projects to a new location**.
2. More importantly, 10 saplings will be planted in addition to the whole tree being dug up with the root intact and scientifically transplanted at another location instead of being felled.
3. A dedicated **panel of government agencies** with track record and experience of tree transplantation is being formed under the policy.
4. Payments for transplantation will be made after one year to ensure this, and if less than 80 per cent of the transplanted trees survive, payment will be deducted.
5. The government will also form **local committees**, which will include citizens, for checking, monitoring and certification of the tree transplantation exercise.
6. A dedicated **Tree Transplantation Cell** will also be formed by the Delhi government and local committees, which will include government officials, citizens to monitor the transplanted trees and to certify that the task has been done with due diligence.

### 8.10 Blue Flag Beaches

**Context:**

Two beaches in Karnataka are among the eight in India that have bagged the coveted eco-label 'Blue Flag' from the international agency, **Foundation for Environment Education**, Denmark. The two are:

1. Kasarkod beach near Honnavar in Uttara Kannada.
2. Padubidri beach near Udupi.

**Other beaches:**

1. Shivrajpur (Dwarka-Gujarat).
2. Ghoghla (Diu).
3. Kappad (Kerala).
4. Rushikonda (Andhra Pradesh).
5. Golden (Puri-Odisha).
6. Radhanagar (Andaman & Nicobar Islands).

**Background:**

Union Ministry of Environment, Forest and Climate Change has embarked upon a programme for 'Blue Flag' certification for 13 beaches in the country.

**Blue flag programme:**

The Blue Flag Programme for beaches and marinas is run by the international, non-governmental, non-profit organisation **FEE (the Foundation for Environmental Education)**.

It **started in France in 1985** and has been implemented in Europe since 1987, and in areas outside Europe since 2001, when South Africa joined.

**What is a Blue Flag beach?**

It is an 'eco-tourism model' and marks out beaches as providing tourists and beach goers clean and hygienic bathing water, facilities/amenities, a safe and healthy environment, and sustainable development of the area.

**Criteria:**

There are nearly 33 criteria that must be met to qualify for a Blue Flag certification, such as the water meeting certain quality standards, having waste disposal facilities, being disabled- friendly, have first aid equipment, and no access to pets in the main areas of the beach. Some criteria are voluntary and some compulsory.

**Relevant facts for Prelims:**

1. Spain tops the list with more than 560 such beaches; Greece and France follow.
2. **Chandrabhaga beach** of Odisha's Konark coast is the first to complete the tag certification process.

3. India is now in the league of **50 “BLUE FLAG” countries**.
4. **Japan, South Korea and the UAE** are the only other Asian nations that have been conferred with a couple of Blue Flag beaches, however, in a time frame of about 5 to 6 years.

#### **Is Blue Flag certification available only for beaches?**

No. It can be given to a beach, marina, or sustainable boating tourism operator. Basically, the Blue Flag is a trademark.

### **8.11 The Human Cost of Disaster 2000-2019 report**

#### **Context:**

Released recently by **the UN Office for Disaster Risk Reduction**.

#### **Key findings:**

1. **Climate change is largely to blame for a near doubling of natural disasters** in the past 20 years.
2. 7,348 major disaster events had occurred between 2000 and 2019, affecting 4.2 billion people and costing the global economy some \$2.97 trillion.

#### **UNISDR:**

The United Nations Office for Disaster Risk Reduction (UNISDR), **created in December 1999**, is the successor to the secretariat of **the International Decade for Natural Disaster Reduction**.

It was established to ensure the implementation of **the International Strategy for Disaster Reduction**.

#### **Functions:**

UNISDR supports the implementation, follow-up and review of **the Sendai Framework for Disaster Risk Reduction** adopted by the Third UN World Conference on Disaster Risk Reduction on 18 March 2015 in Sendai, Japan.

**UNISDR's vision is anchored on the four priorities for action set out in the Sendai Framework:**

1. Understanding disaster risk.
2. Strengthening disaster risk governance to manage disaster risk.
3. Investing in disaster risk reduction for resilience.
4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

#### **Sendai Framework:**

The “Sendai Framework for Disaster Risk Reduction 2015-2030” was adopted during **the Third UN World Conference on Disaster Risk Reduction** held in Sendai, Japan in March, 2015.

1. It is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action.
2. It was endorsed by the UN General Assembly following **the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR)**.
3. The Framework is the successor instrument to **the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters**.

## 8.12 Ship Recycling

### Context:

The Centre has notified **the directorate general of shipping** as **the National authority for recycling of ships**. The notification was issued under **the section 3 of the Recycling of Ships Act, 2019**.

### Roles and functions:

1. As an apex body, DG Shipping is authorized to **administer, supervise and monitor** all activities relating to ship recycling in the country.
2. It will also be **the final authority for the various approvals required by the ship-recycling yard owners and state governments**.

### Hong Kong Convention for Ship Recycling:

Under **Ship Recycling Act, 2019**, India has acceded to **Hong Kong Convention for Ship Recycling under International Maritime Organization (IMO)**.

1. IMO adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships in 2009.
2. The guidelines are aimed at ensuring that ships, being recycled after reaching the end of their operational lives, do not pose any unnecessary risks to human health, safety and the environment.

Please note, **the Convention is yet to come into force** because it has not been ratified by 15 nations, representing 40 per cent of the world merchant shipping by gross tonnage (capacity) and a maximum annual ship recycling volume of not less than 3 per cent of the combined tonnage of the countries.

### Recycling of ships in India and neighbours:

1. India is **the largest ship-breaking player in the world**, recycling around 70 lakh gross tonnage every year, followed closely by Bangladesh.
2. Pakistan and China are the third and fourth largest players.

Around 800 vessels are sent for breaking every year around the world. India accounts for around 30% of that work, with an average 250 ships recycled majorly at centre in **Alang, Gujarat**.



### 8.13 Skinks of India

“Skinks of India” is a recent publication by the Zoological Survey of India (ZSI).

#### Key findings:

1. India is home to 62 species of skinks and about 57% of all the skinks found in India (33 species) are endemic.
2. They are found in all kinds of habitats in the country, from the Himalayas to the coasts and from dense forests to the deserts.
3. With 1,602 species of skinks across the world, making it the largest family of lizards, their occurrence in India is less than 4 % of the global diversity.

#### What are Skinks?

With long bodies, relatively small or no legs, no pronounced neck and glossy scales, skinks are common reptiles.

### 8.14 Kaleshwaram Lift Irrigation Project (KLIP)

#### Context:

The **National Green Tribunal (NGT)** has held that **environmental clearance (EC)** to the **Kaleshwaram Lift Irrigation Project (KLIP)** was granted **ex post facto**, after completion of substantial work, by the Ministry of Environment, Forests and Climate Change (MoEF&CC) “in violation of law”.

#### What needs to be done now?

Fix **accountability needs and take remedial measures**. For that purpose, it has directed the MoEF&CC to constitute a **seven-member expert committee** preferably out of expert appraisal committee (EAC) members with relevant sectorial expertise to go into the matter in light of the observations in the present case.

#### Terms of reference:

1. The expert committee could assess the extent of damage caused in going ahead with the project without EC – the period from 2008 to 2017 – and identify the necessary restoration measures.
2. It could look into relief and rehabilitation measures adopted and required to be further adopted, examine effective implementation of the environmental management plan submitted by the project proponent.

#### Kaleshwaram lift irrigation project:

Originally called **Pranahita-Chevella project** in erstwhile Andhra Pradesh, it was redesigned, extended and renamed as **Kaleshwaram project in Telangana in 2014**.

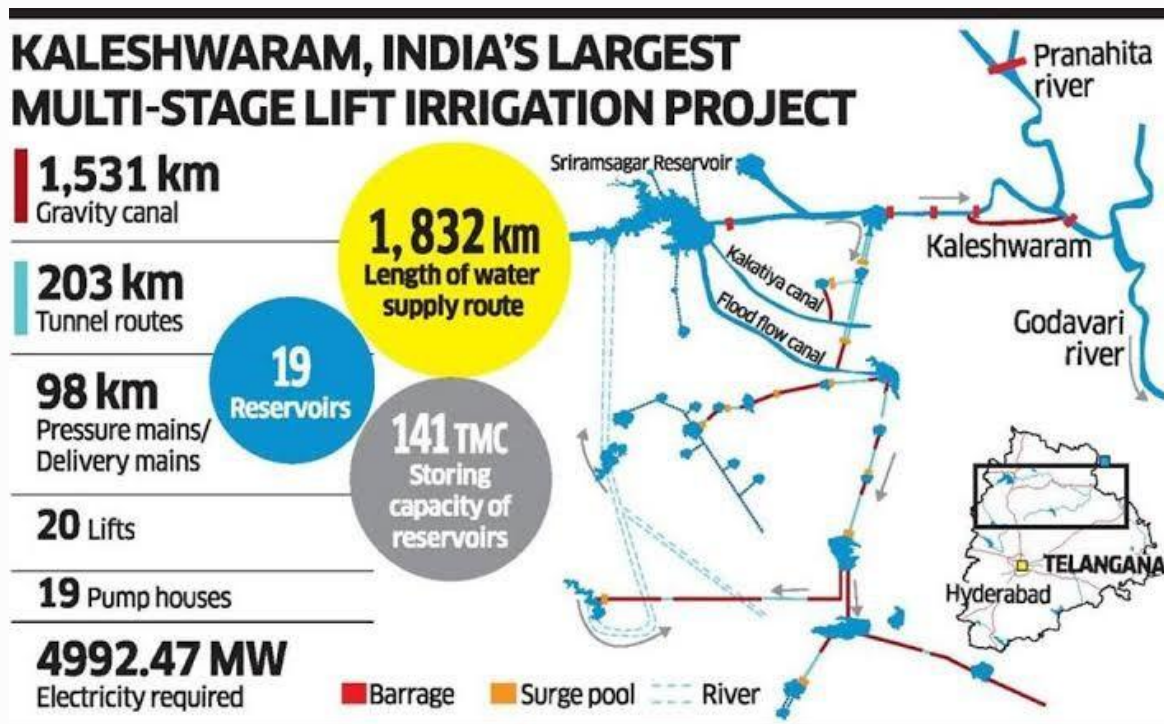
It is aimed to make Telangana drought proof by **harnessing the flood waters of the Godavari**. The project is an under-construction multi-purpose irrigation project on **the Godavari River in Kaleshwaram, Bhoopalpally, Telangana**. The project starts at **the confluence point of Pranahita River and Godavari River**.

**Why is it significant?**

Waters of the Godavari will be tapped by reverse pumping and storage, thereby **facilitating agriculture on over 38 lakh acres**, helping rejuvenate thousands of tanks, providing water for industries, and **supplying drinking water to Hyderabad and Secunderabad** by creating a series of storage tanks and a network of pipelines.

The project will also support **Mission Kakatiya and Mission Bhagiratha schemes** designed to provide drinking water to many villages and improve the capacities of tanks.

When completed, it will be **the world's largest irrigation and drinking water system**.



### 8.15 State of Global Air 2020

**Context:**

The **State of Global Air** is a collaboration between **the Health Effects Institute (HEI) and the Institute for Health Metrics and Evaluation (IHME)**, with expert input from the University of British Columbia.

**Key findings:**

1. **Long-term exposure to outdoor and household air pollution** contributed to over 1.67 million annual deaths from stroke, heart attack, diabetes, lung cancer, chronic lung diseases and neonatal diseases in India in 2019.
2. Overall, **air pollution was now the largest risk factor** for death among all health risks **in India**.
3. **For the youngest infants**, most deaths were related to complications from low birth weight and preterm birth.
4. **India faced the highest per capita pollution exposure** — or 83.2 µg/cubic metre — in the world, followed by Nepal at 83.1 µg/cubic metre and Niger at 80.1.

#### Challenges ahead for India:

The government has claimed that **average pollution levels in India are declining over the past three years**.

But these have been marginal, particularly in the Indo-Gangetic plains which see extremely high particulate matter pollution especially during winter.

1. After a decline in pollution due to the nationwide lockdown in late March and the months-long process of reopening, pollution levels are again rising and air quality has dipped to 'very poor' category in several cities.
2. There is clear evidence linking air pollution and increased heart and lung disease. This newest evidence suggests an especially high risk for infants born in South Asia and sub-Saharan Africa.

#### 8.16 India launches flash flood guidance services for South Asia

##### Context:

India has launched **first of its kind Flash Flood Guidance services for India and other South Asian countries** — Bangladesh, Bhutan, Nepal, and Sri Lanka.

Under this, IMD will issue impact-based forecasting at the watershed and also city level, of floods which are very sudden and of short duration.

##### Flash Flood Guidance:

It is a robust system **designed by the India Meteorological Department (IMD)** to provide the necessary products in real-time to support the development of warnings for flash floods about **6-12 hours in advance at the watershed level with a resolution of 4kmx4km for the Flash Flood prone South Asian countries** — India, Nepal, Bhutan, Bangladesh, and Sri Lanka.

##### Why IMD?

Recognizing that flash floods have a particularly disastrous impact on lives and properties of the affected populations, **the Fifteenth WMO Congress** had approved the implementation of a **Flash**

**Flood Guidance System (FFGS) project** with global coverage.

This was developed by the **WMO Commission for Hydrology** jointly with some others.

Further, WMO has entrusted **India with the responsibility of Regional Centre of South Asia Flash Flood Guidance System** for coordination, development, and its implementation.

**What are Flash floods?**

They are highly localized events of short duration with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood.

### 8.17 Himalayan Brown Bears

**Why in News?**

A recent study on the Himalayan brown bear has predicted a **significant reduction in suitable habitat and biological corridors** of the species due to climate change, prompting scientists to suggest an adaptive spatial planning of the protected area network in the western Himalayas for conserving the species.

1. Also known as **Himalayan red bear, isabelline bear or Dzu-Teh.**
2. It is **the largest carnivore in the highlands of Himalayas.**
3. It is found in 23 protected areas including **Himachal Pradesh, Uttarakhand and Jammu and Kashmir.**

**IUCN Status:**

While the brown bear as a species is classified as **Least Concern** by the IUCN, this subspecies is highly endangered and populations are dwindling. **It is Endangered in the Himalayas and Critically Endangered in Hindu Kush.**

### 8.18 Aenigmachanna gollum

1. It belongs to an old family of fish, called **dragon snakeheads.**
2. It lives in **underground aquifers.**
3. The name has been inspired from the character **Gollum**, who always stays underground, in **the movie 'Lord of the Rings'.**
4. It has been spotted recently in **Kerala.**
5. The scientists came to know about the fish through social media.
6. It is assumed that **they originated in the Gondwanaland** which later split into the continents of Asia and Africa.

### 8.19 Olive Ridley Turtles

The Odisha government has requested **the Wildlife Institute of India (WII)** to conduct a fresh study for identifying the movement of **Olive Ridley sea turtles**, which would help the State renew

its conservation efforts along its coast.

**Key facts:**

1. The Olive ridley turtles are **the smallest and most abundant of all sea turtles found in the world.**
2. They **inhabit warm waters of the Pacific, Atlantic and Indian oceans.**
3. These turtles, along with their cousin **the Kemps ridley turtle**, are best known for their unique mass nesting called **Arribada**, where thousands of females come together on the same beach to lay eggs.
4. **Rushikulya rookery coast** in the Ganjam district of Odisha, **Gahirmatha beach** and the mouth of the Debi River, are the major nesting sites in Odisha.

**8.20 Green firecrackers**

**Context:**

The Delhi government scheduled to launch **an anti-firecracker campaign** on November 3. Now, only **'green' firecrackers** can be manufactured, sold and used in the national capital.

**Background:**

A ban on fireworks was imposed in 2018 and in 2019 only 'green' crackers were allowed, but the permission had come too late for manufacturers to ensure their availability on time.

**What are Green Crackers?**

They are known as **'green' firecrackers** because they have a chemical formulation that produces water molecules, which substantially reduces emission levels and absorbs dust. They are the **crackers with reduced emission and decibel level.**

**Benefits of Green Crackers:**

1. They promise a **reduction in particulate matters and harmful gases**, like nitrous oxide and sulfur oxide, by 30- 35 per cent.
2. They will be 25-30 per cent **cheaper to manufacture and manufacturers would not have to make any changes in their facilities.**