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# PRE-Cure

*(Relevant Current Affairs for UPSC Civil Services Examination)*

Monthly Compilation

*for*

January  
2021

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# 1. Geography

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)
- [Video 4](#)

## 1.1.Christmas Star

- Context: Jupiter-Saturn great conjunction
- After nearly 400 years, Saturn and Jupiter – the two largest planets in our solar system – were closest in the night sky by an astronomical event called the “great conjunction” and popularly referred to as the “Christmas Star”.
- On December 21, the two gas giants appeared very close to each other from earth, while they were hundreds of millions of miles apart in space.
- The event coincided with the winter solstice (shortest day of the year in terms of hours of sunlight received) in the Northern Hemisphere and summer solstice in the Southern Hemisphere.



### So, What is the ‘Great Conjunction’?

- A conjunction is not unique to Saturn and Jupiter however, it is the name given to any event where planets or asteroids appear to be very close together in the sky when viewed from the Earth.
- In June 2005 for instance, as a result of the “spectacular” conjunction, Mercury, Venus and Saturn appeared so close together in the sky that the patch of sky where the three planets were could be covered by a thumb.
- Astronomers use the word “great” for the conjunction of Jupiter and Saturn because of the planets’ sizes.
- The “Great Conjunction” happens once in about 20 years because of the time each of the planets take to orbit around the Sun.
- Jupiter takes roughly 12 years to complete one lap around the Sun and Saturn takes 30 years (Saturn has a larger orbit and moves more slowly because it is not as strongly influenced by the Sun’s gravitational force as planets that are closer to the Sun).
- As the two planets move along their orbits, every two decades, Jupiter catches up with Saturn resulting in what astronomers call the great conjunction.



- Every two decades Jupiter—which can be thought of as a fast runner on the inside track of a racecourse—will overtake Saturn.
- This overtaking is what viewers on Earth witnessed on the night of December 21, when the planets appeared aligned in the sky.

### **Why makes the conjunction rare this year?**

- While Jupiter and Saturn have been moving along on their orbits all throughout this year, since the beginning of December Jupiter has been moving closer to Saturn and on December 21, it will take over Saturn as it orbits around the Sun.
- Jupiter and Saturn are bright planets and can be typically seen with the naked eye even from cities.
- But during a conjunction, they appear to be close to each other, which is what makes the event noteworthy.
- This year, however, the event is rare because the planets will come the closest to each other in nearly four centuries, as a result of a “rare alignment” of the planets.
- Typically, every 20 years, when Jupiter overtakes Saturn, it passes it about a degree apart in the sky as a result of which they can be seen separated in the sky.
- But this year, because of the alignment between them, the planets will appear to be especially close to each other in the sky to viewers on Earth at about a tenth of a degree.
- Further, this year, the alignment of Saturn and Jupiter will occur at night, which has not happened in over 800 years.
- It is because of the timing of this alignment that viewers from nearly all over the world can expect to see this event.
- After Jupiter overtakes Saturn, the planets will reverse their position.

## **1.2.Brexit**

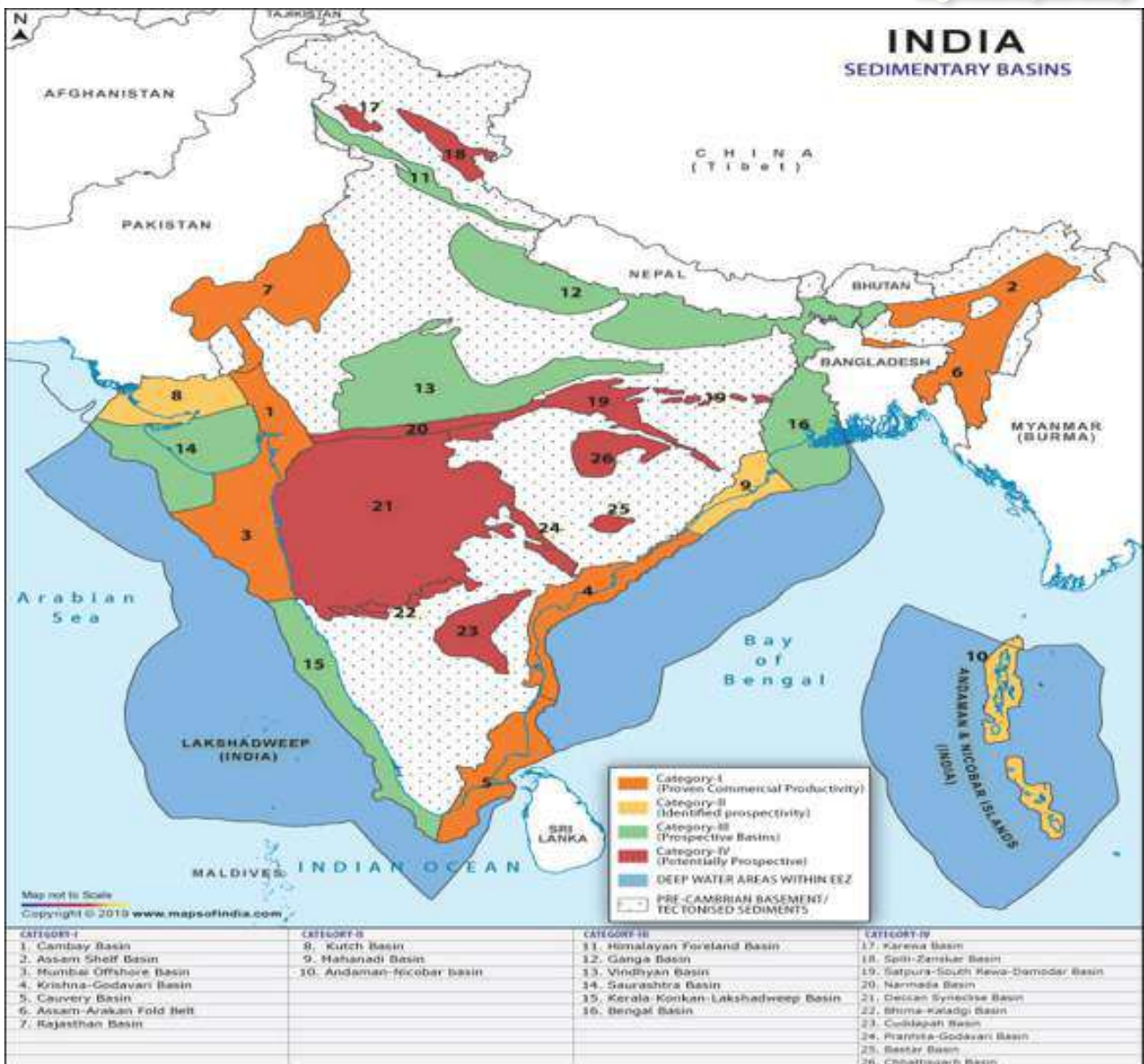
- Context: UK and European Union finally agreed a deal that will define their future relationship.
- The deal contains new rules for how the UK and EU will live, work and trade together.
- The full document has not been released yet.

### **What we do know is that it means:**

- No taxes on each other's goods when they cross borders (known as tariffs)
- No limits on the amount of things which can be traded (known as quotas)
- UK and EU will "continue co-operating in all areas of mutual interest, including things like climate change, energy, security and transport".
- UK will not be taking part in the Erasmus exchange programme for students.

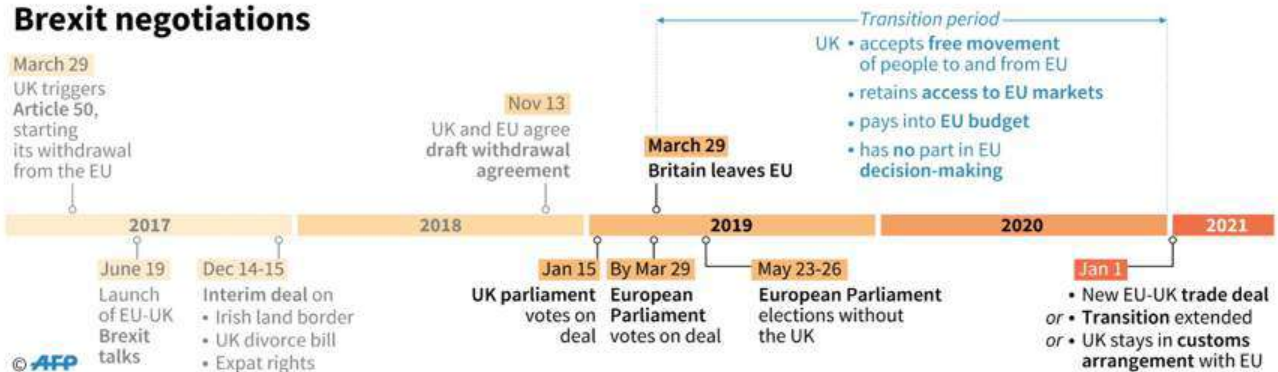
### **Why did the deal take so long?**

- The EU is the UK's nearest and biggest trading partner, The UK government says the deal covers trade that was worth £668bn in 2019.



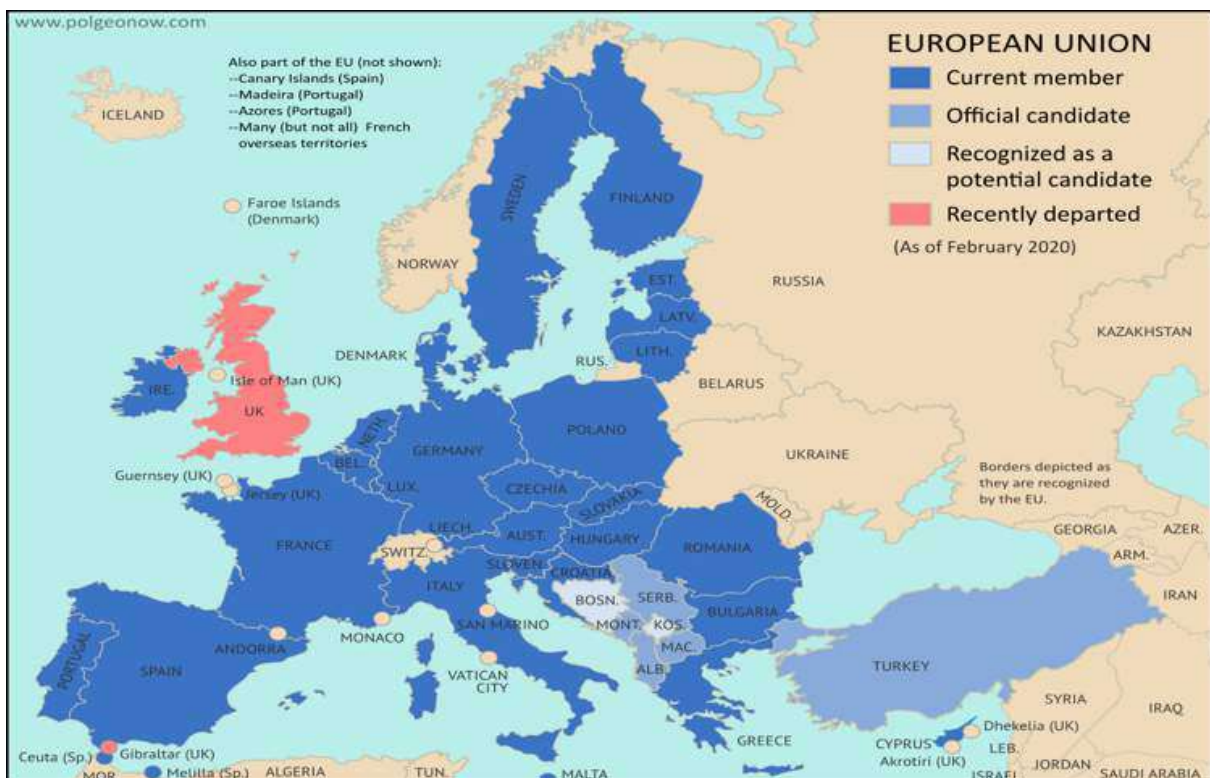
- While the UK was in the EU, companies could buy and sell goods across EU borders without paying tariffs.
- Without the deal, businesses would have had to start paying these taxes, which would have added to their costs.
- No deal would have also meant even more border checks, which could have caused delays for lorries transporting products.

### Brexit negotiations



## What happens next?

- Even though the deal has been agreed, it still needs to be made law.
- For that to happen it must be looked at and approved by both the UK and European parliaments.
- As it's been left so late, the European Parliament won't have time to sign it off before the end of the year.
- That shouldn't stop the deal coming into force on 1 January, but it will take longer before it's officially rubber-stamped.
- The UK government says it will summon MPs back on 30 December to vote on the deal.
- However, there wouldn't be time to debate and look at the details closely.
- What are the EU and Brexit?
- The EU is made up of 27 European countries.
- EU citizens are free to live and work in other EU countries, and firms in those countries can buy and sell each other's goods without checks or extra taxes at borders.
- The UK was the first country to leave the EU and this was known as Brexit - British exit.
- Brexit happened because a public vote - or referendum - was held in June 2016, to decide whether the UK should be in the EU.
- Leave won by 52% to 48%.
- Transition period: The 11-month period following the UK's exit from the EU (finishing at the end of 2020), during which time the UK has followed EU rules, to allow leaders to make a deal.
- Free trade agreement: This is what the EU and the UK have now agreed - a deal between countries that encourages trade by getting rid of barriers like taxes on goods.



### Lost cover

A look at the loss of high-altitude grasslands in the Western Ghats

**The negatives**


- As much as 60% of the landscape has been modified in the last 4 decades
- Large extents of 516 sq km (38%) of native grasslands have been lost

**Some positives**

- Most small mountain-tops are stable, with little or no change
- Munnar and the Anamalai ranges are relatively stable

**The study**

- Landsat images between 1973 and 2017 used
- Covered all shola habitats across Western Ghats
- Researchers visited 840 locations across this habitat



Landscape	Area under exotic trees in 2003*	Area under exotic trees in 2017 *	Area of Invasion between 2003 and 2017*
Palani Hills	117	178	61
Nilgiris North and South Division	115	159	44
Mukurthi National Park	6	10	4
Eravikulam National Park	4	5	1
<b>Total</b>	<b>242</b>	<b>352</b>	<b>110</b>

\* in sq km

**Green meadow:** This is how an undisturbed shola-grassland ecosystem should look like.

SPECIAL ARRANGEMENT

- WTO rules: If countries don't have free trade agreements, they must trade according to rules set by a global body called the World Trade Organization (WTO), which can mean taxes on goods.

### 1.3. Crude Oil Production In Bengal Basin

- Context: Oil and Natural Gas Corporation (ONGC) Limited has begun crude oil production from the Asokenagar-1 well, Bengal Basin in 24 Paragana district.
- This has made the Bengal basin India's eighth producing basin, joining the ranks of Krishna-Godavari (KG), Mumbai Offshore, Assam Shelf, Rajasthan, Cauvery, Assam-Arakan Fold Belt and Cambay.
- The Asokenagar-1 well was completed as an oil producer under Early-Monetization Plan.
- This makes ONGC having discovered and put to production seven out of the eight producing basins of India covering 83 percent of established oil and gas reserves.
- According to the Directorate General of Hydrocarbons, there are 26 sedimentary basins in India, covering a total area of 3.4 million square kilometer.
- Of these, 16 are onland basins, 7 located both onland and offshore and 3 completely offshore.
- ONGC said that it is had sent its first hydrocarbon consignment produced during well testing to Indian Oil Corporation Limited's Haldia Oil Refinery on November 5, 2020.
- Addressing the 'Urja Sangam' conference during March 2015, PM had said that India needs to bring down its oil import dependence from 77 percent in 2013-2014, to 67 per cent by 2022, when India will celebrate its 75th year of independence.

### 1.4. Western Ghats grasslands

- Context: Tropical montane grasslands (TMG) in the Shola Sky Islands of the Western Ghats have suffered big reductions due to invasions by exotic trees such as acacias, pines and eucalyptus, shrinking the range sizes of endemic species, including plants, birds, amphibians and mammals.

- Some populations are being driven to local extinction.
- The Shola forests of South India derive their name from the Tamil word solai, which means a 'tropical rain forest'.
- Classified as 'Southern Montane Wet Temperate Forest' by experts the Sholas are found in the upper reaches of the Nilgiris, Anamalais, Palni hills, Kalakadu, Mundanthurai and Kanyakumari in the states of Tamil Nadu and Kerala.
- These forests are found sheltered in valleys with sufficient moisture and proper drainage, at an altitude of more than 1,500 metres.
- The upper reaches are covered with grasslands, known as Shola grasslands.
- The vegetation that grows in Shola forests is evergreen.
- The trees are stunted and have many branches.
- Their rounded and dense canopies appear in different colours.
- Generally, the leaves are small in size and leathery.
- Red-coloured young leaves turning into different colours on maturity is a prominent characteristic of the Shola forests.
- Epiphytes like lichens, ferns and bryophytes usually grow on the trees.
- The occurrence of Himalayan plants like Rhododendron in these Shola forests is a mystery.
- These are thought to be remnants of the vegetation driven to South India during the Quaternary Ice Age, about 2.6 million years ago, with subsequent changes in the tropics of South India.
- Sholas play a major role in conserving water supply of the Nilgiris' streams.
- The Sholas of the plateau are not of any great importance from a commercial point of view, as the trees are slow-growing varieties which produce timber of little or no value and probably take at least a century to mature. But they add greatly to the beauty of the country and are of immense use in protecting source of water supply.
- Sholas thus act as 'overhead water tanks'.
- The rolling grasslands found on top of the Western Ghats, enhance the beauty of the region. Usually, Shola forests and grasslands are found in a ratio of 1:5.
- Pastoral communities, who settled in the grasslands centuries ago, periodically burn grass.
- This has checked the advance of the Shola forests.
- As tree species of the montane, evergreen forests are flammable, regeneration of any Shola tree species is completely prevented except for Rhododendron nilagiricum, the only Shola tree that can tolerate fire.
- The rain received from the Southwest and Northeast monsoons is harvested by the Shola forest-grassland ecosystem, leading to the formation of the Bhavani river that finally drains into the Cauvery.
- Thus, the Shola forest-grassland ecosystem of the Nilgiris, also supports the prosperity of Cauvery delta farmers.

- But researchers have now identified areas suitable for grassland restoration and conservation to reverse the decline.
- They focus on identifying grassland restoration sites using satellite images with a high spatial resolution (RapidEye), and have recommended careful removal of young and isolated exotic trees at the invasion front and restoring grasslands, instead of removing dense stands of mature exotic trees.
- TMG are high elevation grasslands forming only 2% of all grasslands in the world.
- Among their functions is regulating the global carbon cycle and serving as a source of water to downstream communities.
- In India, TMG have even been classified as wastelands in forest management plans since they are unlikely to generate revenue, contrary to the timber (even if exotic) found in forests
- Loss of grasslands due to invasive exotic trees is a “novel threat” through the establishment and expansion of exotic tree plantations.
- In the Western Ghats, 23% of montane grasslands were reportedly converted into invasive exotic tree cover over a period of 44 years.
- Attempts to manage invasive exotic trees in montane grasslands incorporated approaches that include prevention and mechanical, chemical and biological control.
- For invasive species such as *Acacia mearnsii* that grow rapidly and disperse seeds widely, removing mature trees is often ineffective.
- An approach that targets the removal of young exotic trees would be more effective.
- Similarly, restoring grasslands where isolated but mature trees exist in grassland patches could be an easy way to restrict further dispersal.
- Most of the areas suitable for montane grassland restoration were located in the Nilgiris (126 sq km), followed by the Palani Hills (73 sq km), and the Anamalai (55 sq km).
- The largest areas for grassland restoration were in reserve forests (87 sq km), followed by wildlife sanctuaries (60 sq km) and national parks.
- The Palani Hills and Anamalai lost grasslands due to invasive species, Most of these species were planted, but that programme was stopped around the 1990s, and since then, they were purely invasive.
- The species have a very high seed bank, about which nothing can be done, but cutting them will require multiple cycles.
- The study also throws light on policies for grasslands, which are seen as having no productive use, as is often alleged in the case of the Hesaraghatta grasslands in Bengaluru.

## 1.5. New irrigation model to help desert villagers

- Context: A new model of minor irrigation through sub-surface porous vessels (SSPV) being developed is set to benefit the farmers with small land holdings in the villages of the Thar desert.
- Experiments have indicated a higher yield of farm produce and improvement in the nutrient value of soil after the installation of frustum-shaped vessels at the mounds formed on land.

- The initiative, supported by Indian Institute of Technology-Delhi's Rural Technology Action Group, was taken up earlier this year, after the COVID-19 lockdown was announced, to address the issues of non-availability of food material, malnutrition among children and the villagers' inability to earn livelihood in the cities.
- The model has effectively modified watering by pitchers and competes with drip irrigation.
- At the small Moklawas village in Jodhpur district, the vegetable farming through SSPV has started on the campus of 'Arna Jharna', which functions as the desert museum showcasing the arid landscape.
- The local villagers have created heaped piles of earth and are growing vegetables such as brinjal, tomato, spinach and lady's fingers with the new model.
- A SSPV is made of location-specific clay and sawdust, mixed in a proportion to suit the desert sand, press-formed to the frustum shape and baked at a temperature of 750-800 degree Celsius with the addition of a carbon layer in its structure.
- A team of local potters has been identified in Jodhpur for manufacturing the vessels in the open-hearth furnaces at their households.
- The SSPVs, with the storage of 8 to 9 litres of water, supplies it to a radius of land measuring 1.25 metres.



**Fig. 1 Pitcher or Matka Removal**



**Fig. 2 Frustum Shaped SSPV Removal**

## 1.6.India, World Bank sign pact for safe, green highways

- Green National Highways Corridor Project will support Road Transport and Highways Ministry 783 km of highways
- The Centre and the World Bank signed a \$500-million project to build safe and green national highway corridors in Rajasthan, Himachal Pradesh, Uttar Pradesh and Andhra Pradesh
- The project will also enhance the capacity of the Ministry of Road Transport and Highways (MoRTH) in mainstreaming safety and green technologies.
- The Green National Highways Corridor Project will support MoRTH to construct 783 km of highways in various geographies by integrating safe and green technology designs such as local and marginal materials, industrial by-products and other bioengineering solutions.

- The project will help reduce GHG (greenhouse gas) emissions in construction and maintenance of highways.
- The \$500-million loan from the International Bank for Reconstruction and Development (IBRD) has a maturity of 18.5 years, including a grace period of five years.

## 1.7. Light House Project

- The project involves the construction of around 1,000 houses each with allied infrastructure facilities within a year using new-age alternate global technologies, materials, and processes in Indore (Madhya Pradesh), Rajkot (Gujarat), Chennai (Tamil Nadu), Ranchi (Jharkhand), Agartala (Tripura) and Lucknow (Uttar Pradesh).
- PM linked the project to an incubation centre.

### WHAT IS RERA?

The Real Estate Regulation & Development Act (RERA) which came into effect on May 1, 2017, provides India's real estate sector its very first regulator. It will bring clarity & establish fair

# UNSC



## United Nations Security Council

**Formation:- 1945 Headquarter:- New York City (United States)**

**Members:- 15 (5 Permanent + 10 Non-Permanent) Under Art 23.**

**Permanent Members:- China, France, Russia, United Kingdom, United States.**

**Non-Permanent Members:- Elected By UNGA for 2 years.**

**Presidency Term:- Changes every month Alphabetically.**

**Type:- Principal Organ of the United Nations (UN) under Art 7 of UN Charter.**

**Website:- [un.org/securitycouncil/](http://un.org/securitycouncil/)**

### FUNCTIONS & POWERS

#### Supervisory Function

**Suspend or Restore the Rights & Privileges of the Member under Art 5 of UN charter.**

#### Constituent Function

**No Amendment can be done in UN Charter without the Recommendation of UNSC Under Art 108 of UN Charter.**

#### KEY POINTS

**#Each member of the UNSC have one Vote.**

**#Resolutions Passed in UNSC will be Legally Binding on all UN members under Art 25.**

**#UNSC Voting Procedure comes under Art 27.**

**#Primary Responsibility to Maintain International Peace & Security under chapter 6&7 of UN Charter.**

**#Passed Resolution in UNSC called United Nations Security Council Resolution (UNSCR).**

**#Chapter 5 Articles 23-32 of the UN Charter contains Provisions of UNSC.**

**#UNSC can Impose Sanctions for Peacekeeping and can also use Armed**

**Force if the Situation is not in Under Control to Maintain International P&S.**

**#9 out of 15 Affirmative votes required for a Resolution passed on Procedural matters, But 9 out of 15 Affirmative votes with 5 Concurring votes of Permanent members are Required to pass a Resolution on Substantial matters (All other matters).**

#### Elective Function

**UNSC play role to Elects ICJ Judges**

**Under Art 4 & 8 of Statute of the ICJ.**

**Secretary-General is Appointed by the GA**

**Upon the Recommendation of the UNSC**

**Under Art 97 of UN Charter.**

#### Veto (I Forbid)

**Special Power of Permanent Members to Prevent the Adoption of any "Substantive" Resolution, i.e If any Permanent member**

**protest or Disagree on any Substantial**

**resolution, the Resolution will Fail.**

**#UNSC is also called as Proverb "Policeman of the World"**



## PM MODI TO LAY FOUNDATION STONE OF **LIGHT HOUSE PROJECTS**



GIVE AWAY PMAY- U AWARDS (1/3)

Hon'ble PM Narendra Modi will lay the foundation stone of **6 Light House Projects (LHPs)** as part of GHTC\*-India initiative in **6 States on 1<sup>st</sup> January 2021 at 11 AM**

- Nearly **1,000 houses at each locations in all 6 States** are to be constructed under LHPs using 6 distinct technologies shortlisted under GHTC-India, 2019
- **Will pave the way for a new ecosystem** where globally proven technologies will be adopted for cost-effective, environment friendly & speedier construction
- Will help fulfill the Hon'ble PM's vision of **'Housing for All' by 2022**

\*Global Housing Technology Challenge



## PM MODI TO LAY FOUNDATION STONE OF **LIGHT HOUSE PROJECTS**



GIVE AWAY PMAY- U AWARDS (2/3)

A Certificate Course on **Innovative Construction Technologies 'NAVARITIH'** & a Compendium of 54 innovative housing construction technologies will be released

- **5 winners under Post-Prototype Technologies category** for Acceleration Support to be announced
- **Five Incubation Centers** under PMAY (U) will also be launched



## PM MODI TO LAY FOUNDATION STONE OF **LIGHT HOUSE PROJECTS**



GIVE AWAY PMAY- U AWARDS (3/3)

PM will also give away **annual awards for excellence in six categories** for implementation of PM Awas Yojana – Urban (PMAY – U)

- 88 beneficiaries from across the country will be felicitated on the occasion
- So far, **1.09 crore houses have been sanctioned** against the assessed demand of 1.12 crore
- Out of this, over 70 lakh have been grounded for construction & **nearly 40 lakh have been completed**



- It is in line with Housing For All By 2022, affordable housing for the poor, and rented accommodation for migrant workers.

- The project will strengthen cooperative federalism.
- The Real Estate Regulation Act (RERA) was introduced in 2016 to protect the interest of homebuyers and ensure builders do not default on delivery of houses.
- PM also announced the winners of the Affordable Sustainable Housing Accelerators with Uttar Pradesh topping the list followed by Madhya Pradesh, Andhra Pradesh, and Tripura.

## 1.8. India as non-permanent member of UNSC

- Context: India will begin its two-year tenure as a non-permanent member of the United Nations Security Council (UNSC) on January 1.
- India will sit in the 15-nation UNSC for the 2021-22 term as a non-permanent member for the eighth time.
- On January 1, India, Norway, Kenya, Ireland and Mexico will join non-permanent members Estonia, Niger, Saint Vincent and the Grenadines, Tunisia and Vietnam and the five permanent members China, France, Russia, U.K. and the U.S.
- India will be UNSC President in August 2021 and will preside over the council again for a month in 2022.
- The presidency of the council is held by each of the members in turn for one month, following the English alphabetical order of the member states' names.
- As the largest democracy, India will be promoting very fundamental values like democracy, human rights and development

### Let diversity flourish'

- India's message will also be to ensure "how do we let diversity flourish in a united framework, which is in many ways the United Nations itself"
- India will emphasize on a greater need for cooperation in the council, where "because of paralysis of decision making, urgent requirements do not get properly focused."
- India will also underscore the importance of respect for rule of law and international law.
- The current multilateralism is not factoring in multipolarity.
- Counter-terrorism; peacekeeping; maritime security; reformed multilateralism; technology; women, youth and developmental issues, especially in the context of peace-building, are India's priorities for the UNSC tenure.
- India, the endorsed candidate from the Asia-Pacific States, won 184 votes out of the 192 ballots cast in the elections in June, 2020 for the five non-permanent seats of the Security Council.

## 1.9. India's First Driverless Metro Train

- The Delhi Metro Rail Corporation (DMRC) marked a milestone with its first-ever driverless train operations on its 38-kilometer long Magenta Line, which connects Janakpuri West and Botanical Garden.
- The maiden driverless train is set to be a major technological feat.

- At the virtual inauguration of the train, PM announced that metro train services will be extended to 25 cities by 2025 from the current 18 cities.
  - ✓ The driverless trains of Delhi Metro will offer more reliability due to reduced human intervention.
  - ✓ These metro trains are equipped with hi-tech cameras and obstruction sensing devices to ensure safety of passengers.
  - ✓ These trains can run at an average speed, which is a few notches higher than that of a regular driver-driven one (about 35 kmph).
  - ✓ In old trains, in case of an emergency, a passenger can press the PAD (Passenger Alert Device) red button and alert the driver. In case of a driverless train, after pressing the button, the footage of the carriage will be sent to the operations control room to take action needed.
  - ✓ The driverless train having six coaches are equipped with several advanced features.
  - ✓ These new trains of Delhi Metro have undergone significant technological as well as eco-friendly upgrades and many more features have been added to increase passenger comfort.
  - ✓ Each coach has four PAD buttons, so a total of 24 such alarm devices are there in a train.
  - ✓ There is an obstruction detection device (ODD) below the main coach on the track facing side. This equipment can sense big hurdles through a sensor and the train get then be halted, or if the obstruction is very small, it can even remove and clear the way for the train.
- The fully automated trains will reduce human intervention in operations and offer more reliability and safety for the commuters. This system also brings more flexibility in trains in operation. As a result, the number of trains in service can be regulated based on demand dynamically without any dependence on availability of crew.
- About five driverless trains were deployed and the number will be gradually increased.
- The operationalization of these trains is a major technological milestone for the DMRC and the country
- The 57-km Pink Line (Majlis Park–Shiv Vihar) will also have driverless operations by mid-2021.

## 1.10. National Common Mobility Card (NCCM)

- Context: National Common Mobility Card expanded to the Airport Express Line of Delhi Metro, which was started in Ahmedabad.
- ‘One Nation One Card’, the inter-operable transport card would allow the holders to pay for their bus travel, toll taxes, parking charges, retail shopping and even withdraw money.
- The idea was floated by the Nandan Nilekani committee set up by the Reserve Bank of India.
- NCCM is an automatic fare collection system.
- It will turn smartphones into an inter-operable transport card that commuters can use eventually to pay for Metro, bus and suburban railways services.
- This card runs on RuPay card.

- The stored value on card supports offline transaction across all travel needs with minimal financial risk to involved stakeholders.
- Ministry Of Housing & Urban Affairs brought to the fore the National Common Mobility Card (NCMC) to enable seamless travel by different metros and other transport systems across the country besides retail shopping and purchases.
- Public transport is extensively used across India as the economical and convenient mode of commuting for all classes of society.
- Cash continues to be the most preferred mode of fare payments across the public transport.
- However, there are multiple challenges associated with the cash payment such as cash handling, revenue leakages, cash reconciliation etc
- Various initiatives have been taken by transit operators to automate and digitize the fare collection using Automatic Fare Collection System (AFC).
- The introduction of closed loop cards issued by these operators helped to digitize the fare collection to a significant extent.
- However, the restricted usability of these payment instruments limits the digital adoption by customers.

Ministry of Housing and Urban Affairs  
Government of India

myGov  
मेरी सरकार

PM Modi to Inaugurate National Common Mobility Card in Delhi on 28th Dec 2020

### Implementation of NCMC on Delhi Metro Express Line (2/2)

- Delhi Airport Express Line (23 km) will be the 1st metro network to fully implement NCMC
- Over 1.1 crore Debit RuPay cardholders from across the country will be able to use their recently issued cards on Airport Express Line
- RuPay cards of 23 banks including SBI, Allahabad, Canara, UBI, UCO, IDBI, Bank of India, PNB etc. shall work issued in last over one year
- Close-loop tokens & QR code tickets will continue to work on Airport Express Line but will be withdrawn when the whole network of Delhi Metro gets NCMC compliant
- Nearly 400 km of Delhi Metro is planned to be fully NCMC

All Metros have adopted NCMC

## 1.11.100th Kisan Rail

- Prime Minister flagged off the 100th run of Kisan Rail from Sangola in Maharashtra to Shalimar in West Bengal in a video conference event.
- Railways have launched these Kisan Rails to provide mobile cold storage to transport perishables like fruits, vegetables, milk, fish, among others.
- Kisan Rail service as a major step towards increasing the income of farmers, no minimum quantity has been fixed to transport through Kisan Rail so that even the smallest produce can reach the big markets properly at a low price.
- Kisan Rail and Krishi Udaan (agriculture flights) have made it possible for farmers to sell their crops in other states.

- Perishable rail cargo centers are being constructed in the vicinity of railway stations where farmers can store their produce and experiences from other countries and new technology are being incorporated into Indian agriculture.

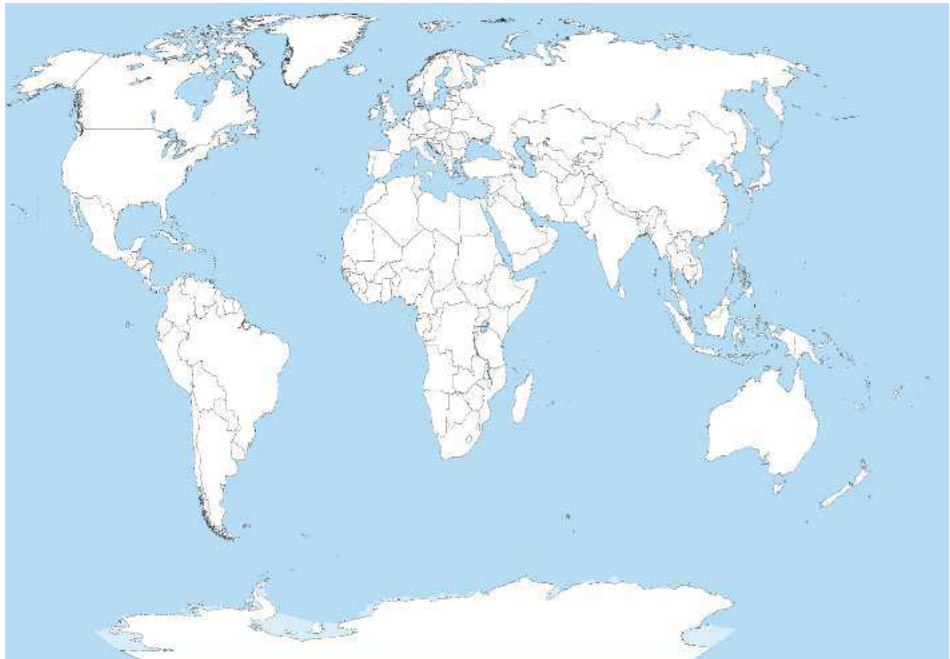
## 1.12. India sets up high-level Group for South Asia Energy Security

### South Asia Group for Energy (SAGE)

- The government has set up a high-level group headed by former Union power secretary and tasked it with helping build a South Asia-focused energy security architecture.
- The objective is to achieve a balanced and optimal development of energy infrastructure through mutual understanding and cooperation.
- The idea is to see how best we can cooperate with each other so that energy shortage is reduced. It is for the benefit of all and to ensure that climate change concerns are also adequately addressed
- SAGE will have the role of promoting, initiating and facilitating effective policy dialogue and capacity building on bilateral, sub-regional and regional basis for energy and related issues, among South Asian countries.

### "One Sun, One World, One Grid" (OSOWOG)

- Under the project, India envisaged having an interconnected power transmission grid across nations for the supply of clean energy.
- It has been taken up under the technical assistance program of the World Bank.
- The ambitious project aims to connect 140 countries of South East Asia and Middle East to trans-national solar power grid.
- With India at the fulcrum, the solar spectrum can easily be divided into two broad zones viz. far East, which would include countries like Myanmar, Vietnam, Thailand, Lao, Cambodia etc, and far West, which would cover the Middle East and the Africa Region.



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### Note

- Several countries, including China, have initiated infrastructure projects in other countries, a step seen as a sign of asserting supremacy.

- While India is a partner nation in most trade associations, with ISA and OSOWOG it is planning to take a leadership position.

### **One Sun, One World, One Grid" (OSOWOG) – Origin**

- The idea was first proposed by India in 2018 assembly of International Solar Alliance.
- ISA - initiative that was launched by the Prime Minister of India and the President of France on 30th November 2015 in Paris, France on the side-lines of the Conference of the Parties (COP-21) .
- The primary objective of the alliance is to work for efficient consumption of solar energy to reduce dependence on fossil fuels.
- Most of the countries are called sunshine countries, which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn.
- Countries that do not fall within the Tropics can join the alliance and enjoy all benefits as other members, with the exception of voting rights.

## **1.13. New Industrial Development Scheme for Jammu & Kashmir**

- Government of India has formulated New Industrial Development Scheme for Jammu & Kashmir (J&K IDS, 2021) as Central Sector Scheme for the development of Industries in the UT of Jammu & Kashmir.
- The present scheme is being implemented with the vision that industry and service led development of J&K needs to be given a fresh thrust with emphasis on job creation, skill development and sustainable development by attracting new investment and nurturing the existing ones.
- The financial outlay of the proposed scheme is Rs.28,400 crore for the scheme period 2020-21 to 2036-37.
- The following incentives would be available under the scheme:
  - ✓ Capital Investment Incentive
  - ✓ Capital Interest subvention:
  - ✓ GST Linked Incentive
  - ✓ Working Capital Interest Incentive:

## **1.14. India's Arctic Expedition to resume in June**

- India embarked upon the Arctic research by launching First Indian scientific expedition to Arctic - in the first week of August 2007.
- Subsequently India has been sending scientific teams every summer and winter for carrying out studies in the Arctic, primarily in the fields of glaciology, hydrochemistry, microbiology, and atmospheric sciences.

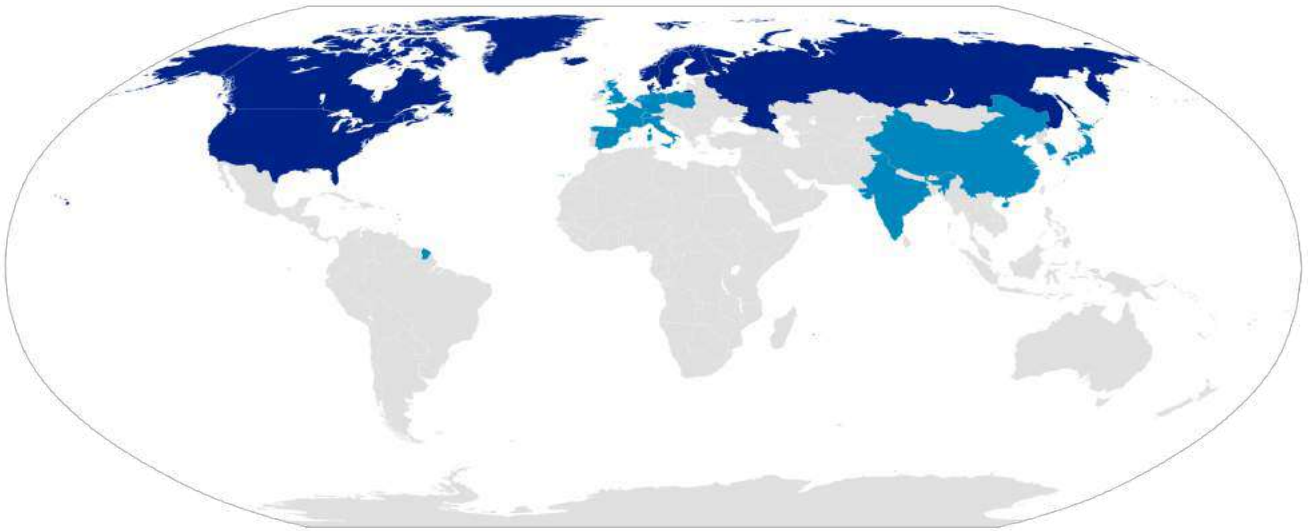
### **IndARC**

- IndARC is India's first underwater moored observatory in the Arctic region.
- It was deployed in 2014 at Kongsfjorden fjord, Svalbard, Norway.

- Its research goal is to study the Arctic climate and its influence on the monsoon.

## Arctic council

- The Arctic Council is a high-level intergovernmental forum that addresses issues faced by the Arctic governments and the indigenous people of the Arctic.
- The eight countries with sovereignty over the lands within the Arctic Circle constitute the members of the council: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States.
- Member states
  - ✓ Only states with territory in the Arctic can be members of the Council.
  - ✓ Member countries are in dark blue. Observers are in light blue.



The member states consist of the following:

- Canada
- Denmark; representing
  - ✓ Greenland
  - ✓ Faroe Islands
- Finland
- Iceland
- Norway
- Russia
- Sweden
- United States

**India : OBSERVER STATE**

## 1.15.Kochi-Mangaluru LNG Pipeline

- Important milestone for both the people of Kerala and Karnataka as the two states are being connected by a natural gas pipeline.
- It will carry natural gas from the Liquefied Natural Gas (LNG) Regasification Terminal at Kochi (Kerala) to Mangaluru (Karnataka).
- Important milestone towards the creation of 'One Nation One Gas Grid'.

### One Nation , One gas grid

- The National Grid is the high-voltage electricity network in mainland India, connecting power stations and major substations and ensuring that electricity generated anywhere in mainland India can be used to satisfy demand elsewhere.
- The Indian Power system for planning and operational purposes is divided into five regional grids.
- Synchronisation of all regional grids will help in optimal utilization of scarce natural resources by transfer of Power from Resource centric regions to Load centric regions.
- Further, this shall pave way for establishment of vibrant Electricity market facilitating trading of power across regions.





## 1.16. Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS) Scheme

- The Ministry of Earth Sciences has a mandate to carry out research and development activities to develop and improve capability to forecast weather, climate and natural hazard related phenomena.
- As the objective of the ACROSS scheme is to provide a reliable weather and climate forecast for betterment of society, the scheme will aim at improving skill of weather and climate forecast through sustained observations, intensive R & D, and by adopting effective dissemination and communication strategies to ensure its timely reach to the end-user of all services like Agro-meteorological Services, Aviation service, Environmental monitoring services, Hydro-meteorological services, climate services, tourism, pilgrimage, mountaineering etc.
- The ACROSS scheme consists of nine sub-programmes which are multi-disciplinary and multi-institutional in nature and will be implemented in an integrated manner through IMD, HIM, NCMRWF and INCOIS.
- These schemes involve multi-institutes wherein each unit has a designated role for accomplishing the aforesaid tasks. As a result, all these schemes with specific objectives and budget are implemented in an integrated manner and are put together under the umbrella scheme "ACROSS".

### INCOIS

- Indian National Center for Ocean Information Services (INCOIS) is an autonomous organization of the Government of India, under the Ministry of Earth Sciences.
- It is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research

## 1.17. Sagarmala Seaplane Services

### Sagarmala Project

- The Sagarmala Programme is the flagship programme of the Ministry of Shipping to promote port-led development in the country by exploiting India's 7,517 km long coastline, 14,500 km of potentially navigable waterways and its strategic location on key international maritime trade routes.
- Themes





- ✓ Port Modernisation
- ✓ Connectivity Enhancement
- ✓ Port Led Industrialisation
- ✓ Coastal Community Development

### **Sagarmala Seaplane Services**

- Connectivity and Accessibility to remote locations
- Faster and affordable communication
- Infrastructure enhancements
- Tourism – GDP in long run.

## **1.18.India Looks at Lithium Reserves in Argentina, Chile and Bolivia**

- Currently, India is heavily dependent on import of these cells and the move to ink sourcing pacts for lithium is seen as another salvo in the front against China, a key source of both the raw material and cells.

### **National Mission on Transformative Mobility and Battery Storage**

- The core objective of the Mission has been to obtain overarching cohesiveness in policy framework for promoting e-mobility and battery storage in the country.
- It will ensure that India captures the economic opportunities at hand, while delivering societal and environmental benefits that will improve quality of life for citizens.

### **National E-Mobility Programme**

- Government of India had launched the National Electric Mobility Mission Plan (NEMMP) 2020 in 2013.
  - ✓ It is a composite scheme using different policy-levers such as:
    - ✓ Demand side incentives to facilitate acquisition of hybrid/electric vehicles
    - ✓ Promoting R&D in technology including battery technology, power electronics, motors, systems integration, battery management system, testing infrastructure, and ensuring industry participation in the same
    - ✓ Promoting charging infrastructure
    - ✓ Supply side incentives
    - ✓ Encouraging retro-fitment of on-road vehicles with hybrid kit.
- Under NEMMP 2020, Government has launched Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) scheme to promote manufacturing of electric and hybrid vehicle technology.

## 1.19.FAME Scheme

- FAME was launched by the Ministry of Heavy Industries and Public Enterprises in 2015 to incentivize the production and promotion of eco-friendly vehicles including electric vehicles and hybrid vehicles.
- Basically, the incentive is provided in the form of subsidies to manufactures of electric vehicles and infrastructure providers of electric vehicles.
- The Scheme operates in two phases :
- Phase I: started in 2015 and was completed on March 31st, 2019.
- Phase II: started from April 1st, 2019, will be completed by March 31st, 2022.
- FAME focuses on 4 areas i.e., Technology development, Demand Creation, Pilot Projects and Charging Infrastructure.

## 1.20.India proposes to expand research, tourism in the Arctic

- India has unveiled a new draft 'Arctic' policy that and is committed to expanding scientific research, "sustainable tourism" and mineral oil and gas exploration in the Arctic region.



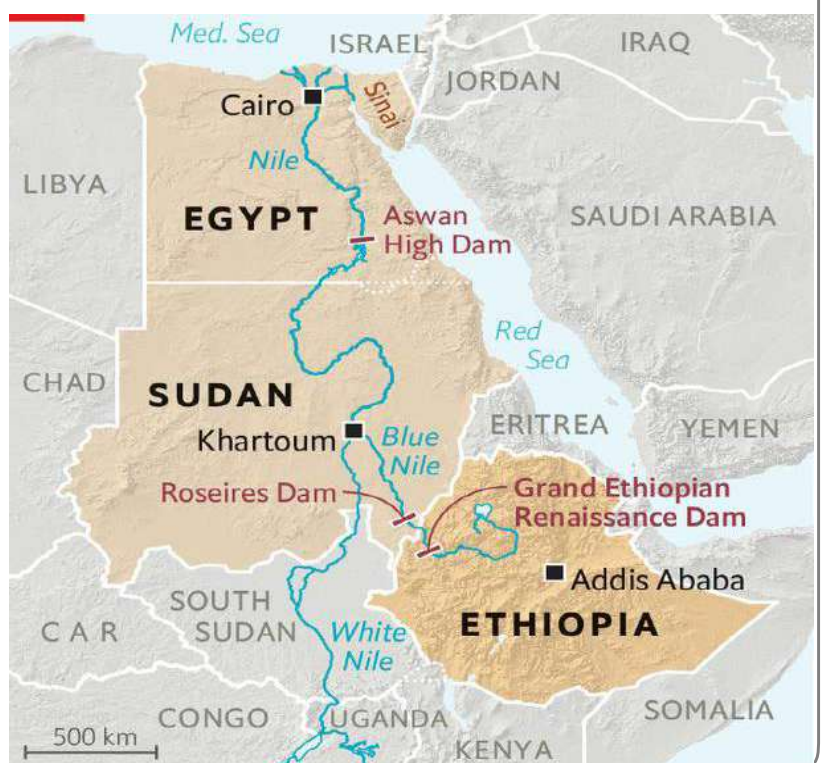
- Rise or decrease in temperature in the Arctic region makes a significant difference to the monsoon and cold waves in India. So, if we are able to study the Arctic region properly and incorporate that in our climate models it can help in improving the accuracy of our climate forecast. The science is very clear that if the model does not include the details of the Arctic region the forecast won't be accurate.
- Though none of India's territory directly falls in the Arctic region, it is a crucial area as the Arctic influences atmospheric, oceanographic and biogeochemical cycles of the earth's ecosystem. Due to climate change, the region faces the loss of sea ice, ice caps, and warming of the ocean which in turn impacts the global climate.

- According to the draft policy, India could be particularly impacted as changes in the Arctic have an effect on water security and sustainability, weather conditions and monsoon patterns, coastal erosion and glacial melting, economic security and critical aspects of national development.
- It envisages India's engagement in the Arctic region for climate research, environmental monitoring, maritime cooperation and energy security.
- There are gas pipelines from Russia to Europe but recently an 8,500 kilometres pipeline has been constructed from the Russian Arctic all the way down to Shanghai in China. Apart from oil and natural gas, the Arctic is also very rich in other clean energy renewable resources like hydropower, wind power and others.”
- India's draft Arctic policy is not oblivious to this fact and perhaps that is why, in addition, to focus on the research in the Arctic region, it focuses on economic and trade opportunities including that related to hydrocarbons.
- The draft policy highlighted that ice-free conditions in the Arctic are resulting in the opening of new shipping routes thereby lowering costs and reshaping global trade. It said that India seeks to participate in the environmental monitoring study to evaluate the predicted emissions of ships likely to traverse this route in future.
- The draft policy calls for exploration opportunities for responsible exploration of natural resources and minerals from the Arctic and identifying opportunities for investment in Arctic infrastructure in areas such as “offshore exploration/mining, ports, railways and airports.”
- It also talks about developing fail-safe seed storage facilities in cryospheric regions, sharing expertise in the management of indigenous and other communities with the Arctic states, encouraging Indian participation in sustainable tourism in the Arctic, and cultural and educational exchanges between the indigenous communities of the glacial regions of the Himalayas and the Arctic.
- India's Arctic Policy Roadmap for Sustainable Engagement draft rides on five pillars:

- ✓ Science and research activities
- ✓ Economic and human development cooperation
- ✓ Transportation and connectivity
- ✓ Governance and international cooperation
- ✓ National capacity building.

## 1.21. Grand Ethiopian Renaissance Dam

- The grand Ethiopian renaissance is a gravity dam on the blue Nile river in Ethiopia under construction since 2011.



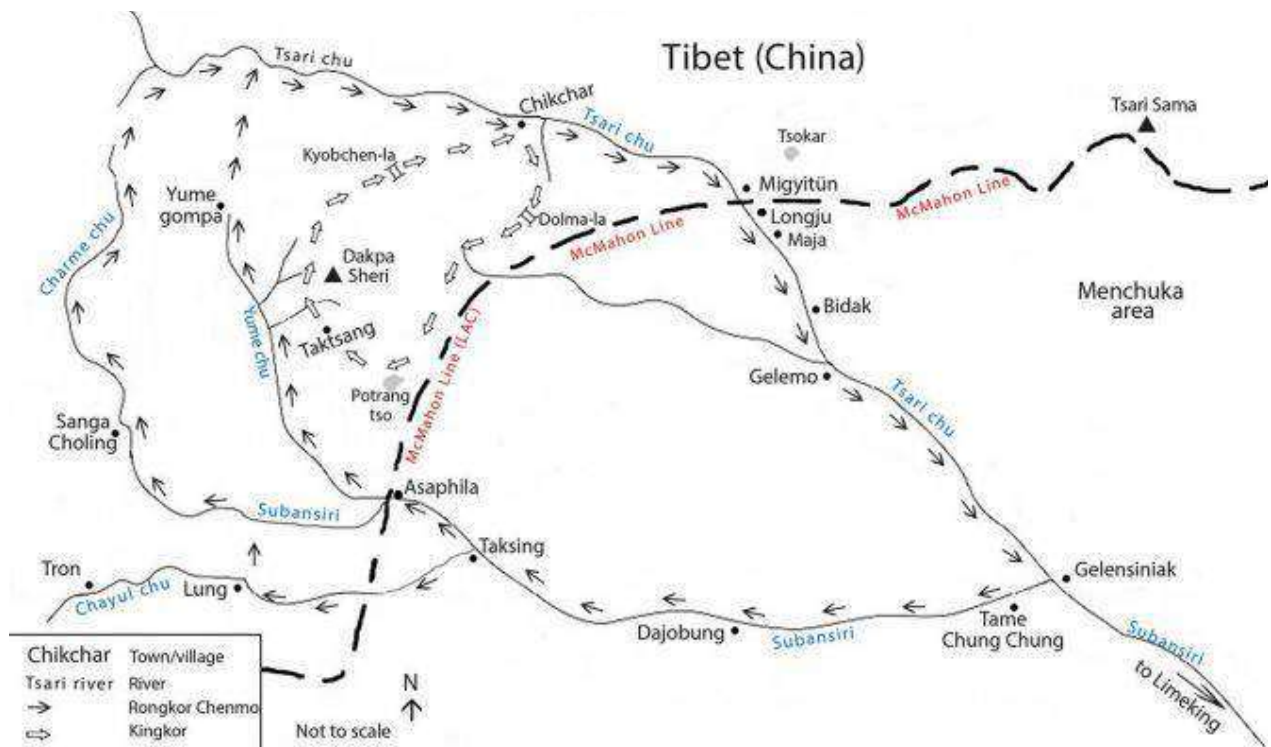
- The primary purpose of the dam is electricity production to relieve Ethiopia's acute energy shortage and for electricity export to neighboring countries.
- With a planned installed capacity of 6.45 gigawatts, the dam will be the largest hydroelectric power plant in Africa when completed, as well as the seventh largest in the world.

## 1.22.Dzukou Valley

- The Dzukou valley has had faced two-week long forest fire which has recently been doused.
- This valley is highly prone to forest fires and has had such incidences in 2006, 2010, 2012 and 2015 before this year.
- Dzukou valley is popularly called the valley of flowers.

### Ecology

- The valley borders a region of old-growth forest, and is home to several rare and endangered species of flora and fauna, including the Dzūko lily and the Blyth's tragopan, which is the State bird of Nagaland.
- It has periodically been threatened by forest fires, which tend to spread quickly due to prevalent wind conditions and are difficult to fight because of the inaccessible terrain around the valley.
- There are no human habitations within the forests.

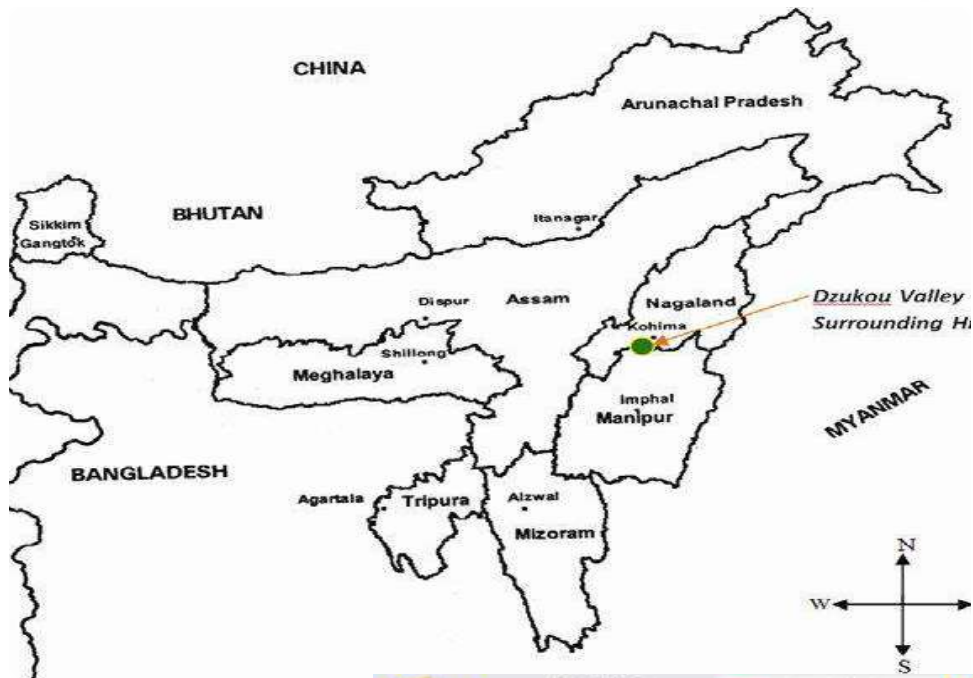


### Ownership

- There has been disputes for years between Manipur and Nagaland regarding the ownership of Dzūko valley.

### Transportation

- The Asian highway 1 and also the Nh-2 passes through its foothills.



### 1.23. Tsari Chu River

- Satellite image shows China built new village in Arunachal.
- The settlements are situated on the banks of Tsari Chu river in Upper Subansiri district of Arunachal.
- The village lies south of the McMahon Line.
- The McMahon Line demarcates between Tibet and India's Northeast, which is disputed by China.



### 1.24. Semeru Volcano of Indonesia



- Semeru, or Mount Semeru is an active volcano in East Java, Indonesia.
- It is located in the subduction zone, where the Indo-Australia plate subducts under the Eurasia plate.

## 1.25. Ratle Hydro Electric Project

- Union Cabinet has given its approval for 850 MegaWatt (MW) Ratle hydropower project on Chenab river in Jammu and Kashmir.
- Note: Read about Indus and Its Tributaries – NCERT



## 1.26. Sultanpur National Park

- Located in Sultanpur village, Gurugram district in Haryana state.
- Park is famous for its migratory as well as resident birds.
- Birds: siberian cranes, greater flamingo, demoiselle crane etc.

### Central Asian Flyway

- Flyway covering a large continental area of Eurasia between the Arctic ocean and the Indian ocean and the associated Island chains.



## 2. History

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)

### 2.1. Khudi Ram Bose

- Context: The Union Home Minister paid homage to revolutionary Khudiram Bose in his village in Paschim Midnapore recently.
- Khudiram was born on December 3, 1889, in the small village of Habibpur situated in the Midnapore district of West Bengal.
- He was possessed by the spirit of the freedom movement when he heard a series of public lectures held in Medinipur, by Sri Aurobindo and Sister Nivedita. (She was an Irish teacher, author, social activist, school founder and a disciple of Swami Vivekananda)
- He became a volunteer when he was just 15 and courted his first arrest for distributing pamphlets against the British rule in India.
- Just a year later, he was taking part in full-blown revolutionary activities, planting bombs near police stations and targeting government officials.
- Khudiram was part of the Anushilan Samiti, propounding revolutionary violence as a means to drive the British out of India.
- During this period, the Chief Presidency Magistrate of Calcutta was Douglas H Kingsford.
- Infamous for handing out strong and harsh punishments to freedom fighters, he was a target of the revolutionaries. He was particularly vindictive towards anti-partition and Swadeshi activists.
- A 15-year-old youngster, Sushil Sen, had opposed the cruelty of cops beating revolutionaries assembled before the court, and Kingsford ordered 15 lashes for the boy.
- With every lash, Sen shouted 'Vande Mataram'.
- This news was widely published in the press, and when the revolutionaries read this news, they boiled with anger and decided that revenge was the best medicine for Kingsford.
- However, the British Government caught wind of the plan, and transferred Kingsford to Muzaffarpur, hoping that the anger of the revolutionaries in Calcutta would subside.
- The revolutionaries heard about this and prepared to kill Kingsford at Muzaffarpur.
- Prafulla Kumar Chaki and Khudiram Bose were appointed for the mission.
- They reached Muzaffarpur in the third week of August 1908 and adopted the aliases 'Haren Sarkar' and 'Dinesh Roy'.



- They decided to carry out spy missions, trying to learn about Kingsford's routine, attempting to find a loophole when the attack could be carried out.
- It was decided that a bomb would be used.
- Khudiram attacked Kingsford's carriage when it was leaving the club. As the horse carriage approached, Khudiram hurled a bomb at it.
- An explosion followed, and the carriage blew up and burst into flames. Prafulla and Khudiram, believing they had succeeded, melted into the darkness.
- Khudiram and Prafulla had thrown a bomb at a carriage, but sadly, it wasn't Kingsford's carriage.
- It was occupied by Mrs Kennedy, the wife of Pringle Kennedy, a leading pleader of the Muzaffarpur Bar, and her daughter. Both women lost their lives in the attack, within hours of each other.
- Unaware of Prafulla's suicide (Prafulla committed suicide when he was about to be arrested by the Police), Khudiram Bose assumed full responsibility of the Muzaffarpur bombings in front of the district magistrate.
- He was then put on trial.
- The trial started on 21st May 1908, and Bose, along with two others, faced the panel.
- On 23rd May, Khudiram resubmitted his statement to the magistrate, denying any responsibility for the attack.
- When the verdict was read out, Khudiram Bose smiled, prompting the judge to ask him whether he understood the full extent of his punishment. Bose replied that not only had he understood the verdict, he was also ready to teach the judge bomb-making if given the time.
- The British judges announced the final verdict on July 13th, 1908.
- One of the youngest revolutionaries of the Indian freedom struggle, he was hung on August 11, 1908, when he was just 18 years old.

## 2.2.Sentinel Island

- Context: "Any exploitation of the North Sentinel Island of the Andamans for commercial and strategic gain would spell the death knell for its occupants, the Sentinelese, a most secluded, particularly vulnerable tribal group (PVTG) who reside in complete isolation on the island" - A report by the Anthropological Survey of India (AnSI).

### Key Findings

- It is a policy document, which has come almost two years after an American national was allegedly killed by the Sentinelese on the Island. The AnSI says the "right of the people to the island is non-negotiable."
- These rights are unassailable, non-negotiable and unfringeable.
- The prime duty of the state is to protect these rights as eternal and sacrosanct.
- Therefore, their island should not be eyed for any commercial or strategic gain, for if it were to happen, it surely would be a death knell for its occupants.



- Sentinelese, with a population of about 50 to 100 on the North Sentinel Island, are not only among the most isolated of nearly 70 PVTGs across the country, but also among the five in the Andaman and Nicobar Islands which include Great Andamanese, Onge, Jarawa, and Shompens.
- Along with maintaining the territorial integrity of the North Sentinel Island, the document also calls for building a knowledge bank on the Sentinelese.
- Since 'on-the-spot study' is not possible for the tribal community, anthropologists suggest the 'study of a culture from distance'.
- Anthropologists who have circumnavigated and conducted an aerial survey of the North Sentinel Island as late as 2015, said this is first detailed policy draft for the Sentinelese island, prepared at the request of the Andaman and Nicobar Administration.
- The anthropologists said that till 1990s, there were goodwill missions whose contact was limited to standing in shallow waters around the island at a distance and offering gifts to the members of the tribe.
- The policy document suggests that members of the goodwill missions should be interviewed for what they remember seeing during their circumnavigations as also fishermen from Wandoor, Manglutun, Chidiatapu, and others, about their visits to this island and any meeting with the tribal community.
- The policy document also talks about the Great Andamanese, a tribe that has had significant exposure to outside world
- Though both Sentinelese and Great Andamanese are classified as PVTG, the tribes live in two completely different contact situation.
- While in the case of the Sentinelese their contact to the outside world is almost nil, the Great Andamanese had decades of exposure to the world outside their Island
- Tracing the history of conflict of the Great Andamanese with the British in the 19th century and the outbreak of disease which brought down the number of members of the tribe from nearly 5,000 in 1858 to 30 in 1951, the document states that in 1969, the members of the tribe were settled at Strait Island having an area of about five sq. km.
- The document highlights that changes have taken place since then, including the fact that the Great Andamanese are no longer a foraging community.
- They are now a semi-aculturated and biogenetically not as pure as the Sentinelese or the Jarawa
- The policy for Great Andamanese calls for bringing out the population from the "State's development dependency" and make them a self-sustaining group.
- Along with steps for preservation of Great Andamanese language and teaching it as third language to the members of the tribe, the policy document seeks protection by prohibiting the entry of unauthorized person to Strait Island, protecting natural resources like fishing around the island and also safeguarding women and children from any kind of exploitation "ranging from voyeurism to sexual exploitation from outsiders.

## AnSI

- The Anthropological Survey of India was established in 1945.

- It conducts bio-cultural investigation/ research on Indian population, collects and preserves documents of scientific interest about the people of India.
- The Anthropological Survey of India is a premier research organisation under the Ministry of Culture.
- It has headquarters at Kolkata and branches in Port Blair, Shillong, Dehra Dun, Udaipur, Nagpur, and Mysore in addition to two field stations at Jagdalpur and Ranchi.

## 2.3.AMU

- Context: Prime Minister addressed the centenary celebrations of Aligarh Muslim University (AMU) via video conferencing.
- On September 14, Aligarh Muslim University completed 100 years as a university.
- This makes it one of the oldest surviving universities in India
- As part of the centenary celebrations, the officials of AMU are thinking of digging out the time capsule buried in the premises 143 years ago on the foundation day of the Muhammadan-Anglo Oriental (MAO) College, which eventually became AMU in 1920.
- No one is aware of the exact contents of the capsule, but it is likely to reveal records of the rich history of the college at the time of its inception in 19th century.
- The India of the 19th century was characterised by a tectonic shift in the religious and social structure of the country, as reformers like Raja Ram Mohan Roy, Dayanand Saraswati, Sir Syed Ahmad Khan and others endeavored to overhaul the extant unjust systems.
- Among Hindus, this led to the Hindu Renaissance.
- And among Muslims, this produced the Aligarh Movement, which sought to reform the Muslim community and bring about changes in the educational, social and political aspects of their lives.
- The forerunner of the Aligarh Movement was Sir Syed Ahmad Khan, the founder of MAO College.
- After the British decided to reduce the usage of Persian in the functions of the state, Sir Syed felt that the salvation of the Muslims lay in the adoption of English and Western education.
- In one of his speeches in 1863, he stated: "The reason why we are so backward is that whilst we have learned in and have benefitted by the philosophy, science and arts of the antiquity, we are almost entirely ignorant of those of modern times."
- Sir Syed himself was a product of the Mughal aristocracy, but his time in British service had made him cognizant of the importance of looking beyond traditional Islamic education.
- He began his quest by founding schools at Moradabad (1858) and Ghazipur (1863).
- A Scientific Society was established in 1864 to translate Western knowledge into local languages and to instill a scientific temper among the people.
- Sir Syed also established the Muhammedan Civil Service Fund Association to sponsor travel of Muslims to London to take the ICS exam.
- He dreamed of creating an educational institution along the lines of Oxford and Cambridge universities.



- Vehement opposition from the orthodox elements was a major obstacle for which the clergy issues five fatwas against him.
- Despite the obstacles the MAO college was established in 1877.
- Eventually, it became the Aligarh Muslim University after the AMU Act was passed in 1920.

## 2.4.National Film Development Corporation

- Context: The Union Cabinet approved the merger of four government film media units with the National Film Development Corporation (NFDC).
- Ministry of Information and Broadcasting announced that the Films Division, the Directorate of Film Festivals, the National Film Archives of India and the Children’s Film Society, India, will be merged with the NFDC.
- The decision is taken with an aim of converging activities and resources and better coordination to ensure synergy and efficiency in achieving the mandate of the bodies.
- The Films Division, a subordinate office of the Ministry of Information and Broadcasting, was established in 1948, primarily to produce documentaries and news magazines for the publicity of government programmes and cinematic record of Indian history.
- The Children’s Film Society, an autonomous organisation, was founded in 1955 under the Societies Act with the specific objective of providing children and young people value-based entertainment through the medium of films.
- The National Film Archives of India, a subordinate office of the information and broadcasting ministry, was established as a media unit in 1964 with the primary objective of acquiring and preserving Indian cinematic heritage.
- The Directorate of Film Festivals, as an attached office of the information and broadcasting ministry, was set up in 1973 to promote Indian films and cultural exchange.

### What Is NFDC And What New Role Has It Acquired?

- The NFDC is a Central Public Sector Undertaking (CPSU), incorporated in 1975 with the primary objective of planning and promoting an organized, efficient and integrated development of the Indian film industry.
- As an umbrella organization, the NFDC, after the merger of the film media units, will be uniquely placed with regard to promotion, production and preservation of film content - all under one management.
- The vision of the new entity will be to ensure a balanced and focused development of Indian cinema in all its genres - feature films, including films and content for over-the-top (OTT) platforms, children’s content, animation, short films and documentaries .
- The Cabinet has also approved the appointment of a “transaction advisor” and a “legal advisor” to advise on the transfer of assets and employees and oversee all aspects of the operationalization of the merger.
- This will lead to reduction in duplication of activities and direct savings to the exchequer.

## 2.5.Dhokra Decorative Pieces

- Context: Dhokra products from different tribes of India were among the main items added in its 7th edition of “From Our Home to your Home” campaign on Tribes India.
- It focusses on sourcing new, natural, attractive as well as immunity-boosting tribal products and bringing them to the customer.
- 35 new products were included in the Tribes India catalogue.
- Key among them are the dhokra style metal work.
- Dhokra is a non-ferrous metal casting style which uses the lost-wax technique.
- This style of metal casting has been in vogue in all parts of India for centuries.
- The dhokra products reflect the simplicity and motifs of tribal and folk life and make for excellent gifting options.
- Hence, they are popular both in India and abroad.
- Among the dhokra products being introduced on Tribes India are attractive statues of fish, elephants and hangers in the boat jail design from the Lohra tribes of Jharkhand.
- From the Sadeibarainitribals from Odisha, Ganesha statues, including a dancing Ganesha, a mask of Goddess Durga and Lord Jagannath, a Buddha Jaali and beautiful diyas in different shapes have been sourced.
- Other products include products from the Kattunayakan tribes of Tamil Nadu. These include different variants of pure, unadulterated honey, pickles such as amla, vadu mango, ragi and types of rice.
- From the tribes of Assam, pure ghee, organic poha, pickles, raw honey have been sourced.
- All the new products introduced are available in 125 Tribes India outlets, Tribes India mobile vans and also on online platforms such as the Tribes India E-marketplace ([tribesindia.com](http://tribesindia.com)) and e-tailers.
- Many new products (immunity boosting products, produce in the Forest Fresh and Organics range and tribal arts and handicrafts) have been included in the past two months.
- The recently launched Tribes India e-marketplace, India’s largest handicraft and organic products marketplace which will connect 5 lakh tribal enterprises to national and international markets, showcases tribal produce and handicrafts, making them accessible to customers across the country.



## DHOKRA IDOLS

	<b>GANESHA STATUE</b>	<b>KAA DURGA MASK</b>	<b>SHRI JAGANNATH</b>	<b>GANESHA STOTUE</b>	<b>LEAF DYA</b>
	<b>ଓଡ଼ିଆ</b>	<b>ଓଡ଼ିଆ</b>	<b>ଓଡ଼ିଆ</b>	<b>ଓଡ଼ିଆ</b>	<b>ଓଡ଼ିଆ</b>
	Name of Tribe: GHATARA	Name of Tribe: GHATARA	Name of Tribe: GHATARA	Name of Tribe: GHATARA	Name of Tribe: GHATARA
	Region: Bhenkanal, Odisha	Region: Bhenkanal, Odisha	Region: Bhenkanal, Odisha	Region: Bhenkanal, Odisha	Region: Bhenkanal, Odisha
	Product Specification: Dhokra is a process of lost wax technique where no material is wasted. These tools they made for farming purpose were later recycled.	Product Specification: Dhokra is a process of lost wax technique where no material is wasted. These tools they made for farming purpose were later recycled.	Product Specification: Dhokra is a process of lost wax technique where no material is wasted. These tools they made for farming purpose were later recycled.	Product Specification: Dhokra is a process of lost wax technique where no material is wasted. These tools they made for farming purpose were later recycled.	Product Specification: Dhokra is a process of lost wax technique where no material is wasted. These tools they made for farming purpose were later recycled.

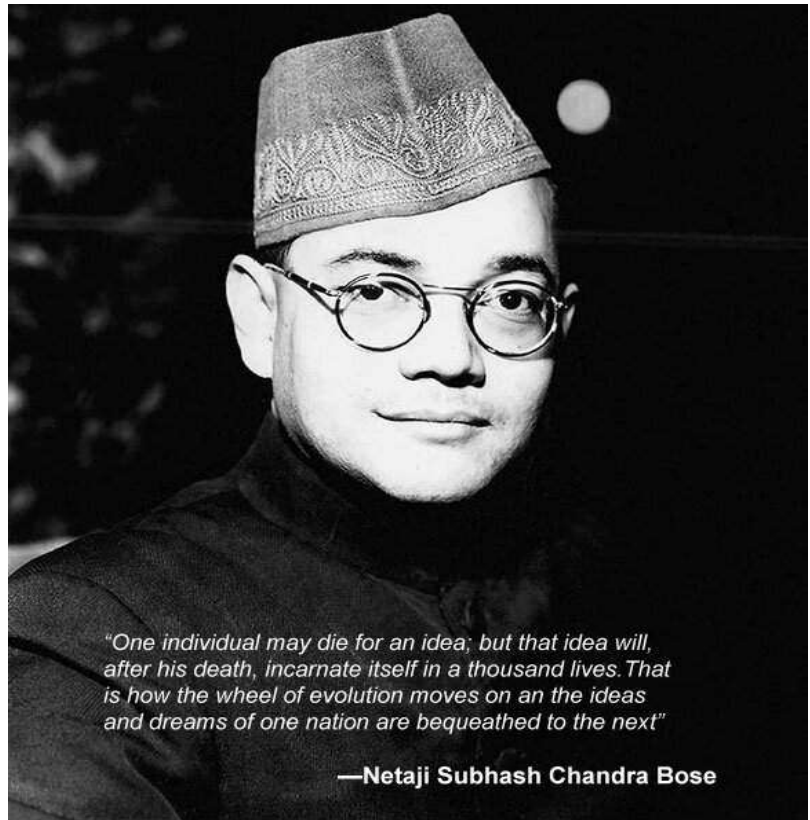


## 2.6. Netaji Subhash Chandra Bose

- Context: PM remembered Netaji Subhas Chandra Bose on 75th Anniversary of tricolor hoisting at Port Blair
- 30th December 1943 Subhas Bose unfurled the Tricolour at Port Blair
- On December 29, 1943, Netaji Subhas Chandra Bose arrived in Port Blair, Andaman and Nicobar Islands, for a three-day visit.
- The Islands were under Japanese occupation during World War II for three years (1942-45) and were formally handed over to Bose's Azad Hind government on this day, although effective control remained with Japan.
- The Andaman and Nicobar Islands are strategically located in the Indian Ocean between the Indian mainland, Myanmar, and Indonesia, and are close to important maritime routes.
- The islands were first controlled by the Dutch, then by the British, and were taken over by the advancing Japanese military during World War II.
- Bose, who had allied with the Japanese during the War, declared at a public meeting in August 1943 that the Azad Hind Fauj would be on Indian soil before the end of that year.
- On October 24, Bose reiterated his promise before a gathering of 50,000 Indians in Singapore, where he said he would be "on the holy soil of India before the end of this year".

- The Azad Hind government was able to obtain de jure control of the islands from the Japanese by the end of 1943, and Bose arrived in Port Blair on December 29.
- Bose redeemed his promise of setting foot on Indian soil before the year's end by arriving in Port Blair on December 29 for a three-day visit to these islands.
- His visit was steeped in symbolism.
- The British had imprisoned some of India's greatest revolutionaries in the notorious Cellular Jail on Andaman Island, where many had spent harsh life sentences and not a few had been sent to the gallows.
- Netaji paid tribute to the revolutionaries who had suffered there and likened the opening of the gates of Cellular Jail to the liberation of the Bastille.
- He hoisted the Indian Tricolour at the Gymkhana grounds in Port Blair while a chorus sang the national anthem.
- Before his departure, he renamed Andaman as Shaheed ("Martyrs") Island, and Nicobar as Swaraj ("Freedom") Island.
- Netaji Subhas Chandra Bose was born on January 23, 1897.
- He is considered as the most revered freedom fighter of India who built the first Indian armed force named the Azad Hind Fauj.
- His famous slogan, "Tum mujhe khoon do, main tumhe aazdi dunga" sparked patriotism in the hearts of many Indians during the fight for independence.
- Born in Odisha in the year 1897, Bose was exceptionally brilliant and secured top ranks throughout his study in school and university. He completed his BA in Philosophy with a first-class score in 1918.
- He cleared the Indian Civil Service examination in 1920 in England.
- Later, he resigned from his civil service job on April 23, 1921 after hearing about India's struggle for freedom.
- Earlier, Bose had been a leader of the younger, radical, wing of the Indian National Congress in the late 1920s and 1930s, rising to become Congress President in 1938 and 1939.
- He was expelled from Congress leadership positions in 1939, following differences with Mohandas Karamchand Gandhi and the Congress high command, after openly attacking the Congress' foreign and internal policies.
- Although Subhash Chandra was opposed to Gandhi Ji's philosophies, he still used to call him 'Patriot of Patriots'. This honour was commendable as Bose was fully devoted to India's Independence. There was no sacrifice that he did not make for his nation.
- During the period of 1921-1941, he was imprisoned eleven times in various jails due to his stand for complete independence.
- Bose believed that Gandhi's tactics of non-violence would never be sufficient to secure independence and advocated violent resistance.

- At the outset of the Second World War, he had travelled to a number of countries, including Soviet Union, Nazi Germany and Imperial Japan, so as to seek alliance with each and to attack the British government in India.
- Later, he re-organised with Imperial Japanese assistance and led the Azad Hind Fauj or Indian National Army (INA), formed with Indian prisoners-of-war and plantation workers from British Malaya, Singapore and other parts of Southeast Asia, against the British forces.
- With Japanese monetary, political, diplomatic and military assistance, he formed the Azad Hind Government in exile, and regrouped and led the Indian National Army.
- Along with the Japanese army they brought independence to Andaman and Nicobar Islands and came all the way to Manipur in India.
- He established the Azad Hind Radio station in Germany and led the Indian nationalist movement in East Asia.



## 2.7.1000-Year-Old Paper-Making Technique

- In the forests of Mukto, a village perched at an altitude of 10,800 feet in Tawang district, grows the shugu sheng shrub (*Daphne papyracea*), the bark of which has been traditionally processed into 'mon shugu' by the Monpa tribe.
- For centuries, the paper has made its way to the many Buddhist monasteries not just locally, but in Tibet, Bhutan, China and Japan too, where it serves as a medium for religious scriptures, manuscripts, prayer flags, and sometimes as part of flag poles and prayer wheels.
- At one point of time almost every household had a paper-making unit.
- But it was not easy to do – it was hard work, took all day, and had very little return
- Sometimes, raw materials were not easy to source, even if you got it, there was the long process of boiling, beating, drying, cutting (of paper) – all by hand. So many people began to look for alternative sources of income.
- KVIC team studied the craft, in partnership with the United Nations Development Program (UNDP), in the mid-1990s.
- Subsequently, a project was launched by the KVIC to modernise it.





- A common facility centre at Mukto was made, machines were brought in to speed up the work in 2003, and a group of artisans were sent to Jaipur for a training program by the Kumarappa National Handmade Paper Institute, under the KVIC
- Almost two decades ago, samples of the shugu sheng bark were sent to Jaipur and Germany for testing.
- The results were outstanding. Not only does the paper have huge tensile strength but is durable and made without a single chemical additive.
- So it is not just that the process is unique, but the product is as special, it is for this reason that the paper serves as a good material for religious scriptures.
- The bark from the shrub has to be extricated, dried, boiled with a solution of ash, made into pulp and then cut into sheets of paper
- Many communities here have local laws such as not allowing their forest produce to be taken outside the villages. So it may be difficult to get an unlimited supply of shugu sheng, which grows only in certain areas.
- So the efforts will focus on doubling up domestic plantations of the shrub and finding a suitable commercial market.
- There are artisans to be convinced, many of whom have moved away from the craft altogether.



## 2.8. 'Adopt A Heritage' Tourism Scheme

- Context: The Union Minister of Tourism headed the review meeting to take stock of the scheme's progress and its future plans.
- Various historical monuments which have been incorporated as part of the project are Delhi's Red Fort, Qutub Minar, Safdarjung Tomb, Jantar Mantar and many others.
- The 'Adopt a Heritage: Apni Dharohar, Apni Pehchaan' scheme is an initiative of the Ministry of Tourism, in collaboration with the Ministry of Culture and the Archaeological Survey of India.
- It was launched in September 2017 on World Tourism Day
- Under it, the government invites entities, including public sector companies, private sector firms as well as individuals, to develop selected monuments and heritage and tourist sites across India.
- Development of these tourist sites calls for providing and maintaining basic amenities, including drinking water, ease of access for the differently abled and senior citizens, standardised signage, cleanliness, public conveniences and illumination, along with advanced amenities such as surveillance systems, night-viewing facilities and tourism facilitation centres.
- The sites/monument are selected on the basis of tourist footfall and visibility and can be adopted by private and public sector companies and individuals – known as Monument Mitras – for an initial period of five years.

# FORWARD EYE ON HISTORY

**3,686** Ancient monuments and archaeological sites, including 36 world heritage structures, protected by ASI

## Adopt A Heritage Scheme is expected to

Provide basic amenities at the site

Increase domestic and foreign tourist footfalls at the heritage structure



### Monuments categories

**Green | Premium**

**Blue and orange | Less coveted**

## Basic amenities to be developed by the 'Monument Mitra'

➤ Illumination      ➤ Advanced surveillance system

➤ Backlit signages      ➤ Money exchange

➤ Clean drinking water facilities      ➤ Light and sound shows with regular cultural shows

➤ Differently-abled-friendly facilities - ramps, wheelchair facility, braille signages, among others      ➤ Battery-operated vehicles

➤ Wi-Fi      ➤ Toilets

➤ App-based multi-lingual audio-guide

➤ Cloakroom

➤ Shoe-racks/covers

➤ Cashless ticketing through machines

➤ Cafeteria


**“ We have not been taken into confidence. This is not right. Nobody has discussed anything with me. I'm inquiring (into) what exactly the issue is, after which a decision will be taken.**




**Manohar Azgaonkar**  
TOURISM MINISTER

## About the scheme

<ul style="list-style-type: none"> <li>➤ Scheme is a non-revenue generating project</li> </ul>	<ul style="list-style-type: none"> <li>➤ 'Monument Mitra' to develop world-class tourism infrastructure at identified sites, take steps to improve tourist experience, generate livelihoods for local communities</li> </ul>
<ul style="list-style-type: none"> <li>➤ Monuments to be made tourist-friendly with active public-private partnership</li> </ul>	<ul style="list-style-type: none"> <li>➤ 2 yrs   Initial term of MoU between govt and adopting party</li> </ul>
<ul style="list-style-type: none"> <li>➤ Private &amp; public sector companies, individuals, can adopt a heritage site</li> </ul>	<ul style="list-style-type: none"> <li>➤ 5 yrs   Maximum extension for MoU term based on performance, capacity and feedback received at the heritage site</li> </ul>
<ul style="list-style-type: none"> <li>➤ Chosen party will be known as 'Monument Mitra'</li> </ul>	
<ul style="list-style-type: none"> <li>➤ Selection of party on basis of concept of vision bid. No financial bid involved</li> </ul>	
<ul style="list-style-type: none"> <li>➤ Invited companies to adopt under their CSR initiative</li> </ul>	





- The Monument Mitras are selected by the 'oversight and vision committee,' co-chaired by the Tourism Secretary and the Culture Secretary, on the basis of the bidder's 'vision' for development of all amenities at the heritage site.
- There is no financial bid involved.
- The corporate sector is expected to use corporate social responsibility (CSR) funds for the upkeep of the site.
- The Monument Mitras, in turn, will get limited visibility on the site premises and on the Incredible India website.
- The oversight committee also has the power to terminate a memorandum of understanding in case of non-compliance or non-performance.
- According to the release issued by the Ministry of Tourism, the government has clinched a total of 27 Memorandum of Understandings (MoU) with a total of 12 public/private entities for a total of 25 major heritage sites in the country.
- The government also informed that a total of 2 MoUs have also been signed to facilitate technological interventions at a couple of heritage sites under the project.
- The major monuments which have been handed over to the "Monument Mitras" include the historic Red Fort which has been allotted to the Dalmia Bharat Ltd, Qutub Minar (allotted to Yatra.Com), Safdarjung Tomb(allotted to Travel Corporation of India), and Jantar Mantar(allotted to SBI Foundation) among others.
- This is not the first time the government has tried to rope in the corporate sector to help maintain tourist sites and monuments.

- In one such attempt, the government in 2011 formed a National Culture Fund.
- Since then, 34 projects have been completed under it through public-private partnerships.
- Another similar scheme was 'Campaign Clean India', in which the government had identified 120 monuments/destinations.
- Under this scheme, the India Tourism Development Corporation had adopted Qutab Minar as a pilot project in 2012, while ONGC adopted six monuments – Ellora Caves, Elephanta Caves, Golkonda Fort, Mamallapuram, Red Fort and Taj Mahal – as part of its CSR.

## 2.9. Understanding Panipat 1761 Through Rare Paintings

- Context: Manoj Dani, an independent U.S.-based researcher of art history, has painstakingly assimilated rare paintings pertaining to the battle and its key players in a work titled *Battle of Panipat: In Light of Rediscovered Paintings*.
- Before Waterloo 1815, there was Panipat 1761 – where the Maratha army led by Sadashivrao Bhau was defeated by the forces of the Afghan invader Ahmad Shah Durrani.
- While the battle and its complicated run-up has been analysed in works such as James Grant Duff's *History of the Mahrattas* (1826), the second volume of Jadunath Sarkar's opus *Fall of the Mughal Empire* (1934) and in T. S. Shejwalkar's classic monograph *Panipat 1761* (1946), this critical event in modern Indian history has lacked serious visual appreciation in form of contemporary paintings till date.
- The book casts a fresh light on the fateful day of battle on January 14, 1761 and the politics of the Deccan and North India through rare paintings, several of which are published in book-form for the first time.
- The book contains rare paintings from the Bibliothèque nationale de France (BnF), the British Library, the National Museum in Delhi, Bonhams of U.K. and the Pune-based Bharat Itihas Sanshodak Mandal (BISM).
- While the paintings depict key players such as Ahmad Shah Abdali, Sadashivrao Bhau, Najib Khan Rohilla, Dattaji Shinde, Vishwas Rao, Suraj Mal Jat and other Maratha, Afghan, Rohilla and Jat chiefs, the book deftly weaves analysis from original archival sources, casting a revealing light on the shifting alliances of 18th century Indian politics.

**MARKETPLACE Tribes India** | **myGov** मेरी सरकार

**DIGITALIZING TRIBAL COMMERCE, MAKING INDIA AATMANIRBHAR**

**TRIFED Launches the Tribes India E-Marketplace**

**A one stop e-Marketplace for all tribal products**

- ▀ First time opportunity to sell handicrafts, handlooms & organic products to global markets online
- ▀ Access to Amazon, Flipkart, Snapdeal, Paytm, GeM
- ▀ Accessible on Web, Mobile (Android & iOS) for both customers & vendors

**Inauguration of Tribes India's 123<sup>rd</sup> and 124<sup>th</sup> outlets in Rishikesh & Kolkata**

**Inclusion of new tribal product from Jharkhand & Chhattisgarh flagged off**

- The book contains rare contemporary paintings of the Maratha chieftain Dattaji Shinde in battle and that of Khanderrao Holkar (the only son of the astute Malhar Rao Holkar), who was killed in the Battle of Kumher in Suraj Mal Jat's territory.
- There is also a painting of the Dilli Darwaza (Delhi Gate) of the Shaniwar Wada – the seat of the Peshwas in Pune before it was burnt by a mysterious fire in 1827.
- One can see how the Dilli Darwaza looked like in the twilight of the Peshwai era in the 1820s.
- There is also a picture depicting Vishwas Rao, the son of Nanasaheb Peshwa who was renowned for his good looks and was killed along with Sadashivrao Bhau in Panipat
- Sadashiv Rao's letters to his agents in the north stressing the need to win Shuja-ud-Daulah of Awadh to the Maratha side was one of the first enunciations of the Indian 'Nation State'.
- Here, Bhau makes a distinction between Ahmad Shah Abdali as a foreign invader and Shuja-ud-Daulah, though an Islamic ruler, an Indian one.

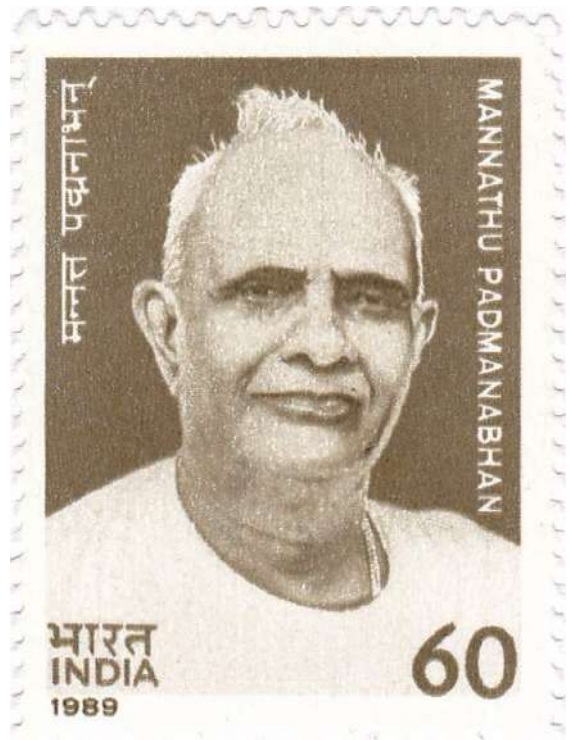
## 2.10. Giant Rock Bee Honey added to Tribes India Collection

- Context: Giant Rock Bee Honey, a unique variant of honey, sourced from Malayali Tribes of Tamil Nadu, got added to Tribes India Collection
- More than 35 new, attractive, immunity-boosting tribal products have found a new home in Tribes India outlets and website in the 8th edition of 'From Our Home to your Home' campaign.
- "The campaign had been launched by Tribal Cooperative Marketing Development Federation of India (TRIFED) under Ministry of Tribal Affairs in order to source as many effective, natural, and attractive products from diverse indigenous tribes across the country so that these can reach a wide variety of audience.
- Key among the products this week are the natural, fresh, organic produce
- From the Malayali tribes of Tamil Nadu, such as Giant Rock Bee Honey, honey, variants of millet rice, tamarind and black pepper.
- Malayali is a tribal group from the Eastern Ghats in North Tamil Nadu.
- With a population of around 3,58,000 people they are the largest Scheduled tribes in that region.
- The tribals are usually hill farmers and they cultivate different types of millet.
- Among the other products sourced include vibrant and eye-catching micro-beaded jewellery (mainly neckpieces) from the Patelia tribe from Madhya Pradesh.
- While agriculture is their mainstay, their handiwork is exceptional too as can be gauged from the beautiful, colourful pieces made by the artisans of Jhabua.
- Other products include organic varieties of dals and spices locally sourced from the Vasava tribes of Gujarat
- An assortment of produce - such as honey, jams and two unique variants of rice from the Kharwar and Oraon tribes of Jharkhand and some interesting wooden products (chakla and belan) and attractive metal jalis from the Adim Janjatit tribes and Lohra tribes of Jharkhand.

- All new products introduced over the past weeks are available in 125 Tribes India outlets, Tribes India mobile vans and on online platforms such as the Tribes India E-marketplace and e-tailers.
- The recently launched Tribes India e-marketplace, India's largest handicraft and organic products marketplace which aims to connect 5 lakh tribal enterprises to national and international markets; showcases tribal produce and handicrafts, making them accessible to customers across the country

## 2.11.Sri Mannathu Padmanabhan

- Context: PM pays tribute to Sri Mannathu Padmanabhan on his Jayanti
- He was born in Perunna, on 02 January 1878 CE, a small village in Kottayam district of Kerala.
- Mannathu Padmanabhan started as a teacher in 1893 in Kanjirapally Government Primary School at the age of 16.
- In 1905, he started practicing law in Magistrates Courts and soon became a leading member of the Bar.
- Sri Mannathu Padmanabhan, a revolutionary thinker in his own right, along with thirteen of his close associates formed the Nair Service Society which has its headquarters in Perunna, Changanacherry.
- In 1914 "Nair Bhruthya Janasangham" was formed to organise and bring social reformation to the Nair community.
- In 1915 he gave up his lucrative practice and became full-time secretary of the Nair Service Society [Nair Bhruthya Janasangham] that had been started at his initiative.
- In 1924 he took part in the Vaikom Sathyagraha [30-03-1924] and led the famous "Savarna Jatha" on 01-10-1924, an anti-untouchability agitation.
- On 1st of November 1929, he participated in the famous "Guruvayoor Sathyagraham".
- Mannam became a member of the Indian National Congress in 1947 and took part in the Travancore State Congress agitation against Sir C.P Ramaswamy Iyers administration in general and his policy for an independent Travancore in particular.
- In 1949 Padmanabhan became a member of the Travancore Legislative Assembly.
- He became president of the Travancore Devaswom Board in 1950.
- He along with Sri R.Sankar, General Secretary of SNDP, initiated the Hindu Maha Mandalam.
- On 11-02-1950 Sri Mannam gave up his surname, stating that name should not be an indicator of caste.
- On 09-08-1959, the people of Kerala honoured him with the title "Bharatha Kesari" [Lion of India] for his outstanding and selfless social activities.



- He was also awarded the "Padmabhushan" in 26-01-1966, by the Government of India.
- Mannam Passed away on 25th February 1970.
- Mannam wrote many books, an autobiography, and a travelogue, 'Our Trip to the Federal Malay States' [FMS].
- 'Reminiscences of my life' is the English translation of the autobiography of Mannathu Padmanabhan.

## 2.12. Renaming of Aurangabad as Sambhaji Nagar

- Context: A long standing demand for renaming Aurangabad city in Maharashtra as Sambhaji Nagar has resurfaced over the last few days.
- Aurangabad was built in the 15th century by Malik Ambar of the Nizamshahi dynasty.
- When Aurangzeb, the son of Shah Jahan took over the Mughal Empire, he made the city his capital and renamed it after his name.
- He tortured and later killed Chhatrapati Sambhaji Maharaj, son of Maratha warrior Chhatrapati Shivaji Maharaj in Aurangabad where he lived until his death.
- In 1995, the Aurangabad Municipal Corporation (AMC) passed a resolution to rename Aurangabad as Sambhaji Nagar.

## 2.13. New 'Anubhava Mantapa' at Basavakalyan

- Context: Karnataka Chief Minister laid the foundation stone for the 'New Anubhava Mantapa' in Basavakalyan.
- It is the place where 12th century poet-philosopher Basaveshwara lived for most of his life.
- The ₹500-crore project is expected to be completed within two years
- The project to highlight the teachings of Basaveshwara (an icon of Veerashaiva-Lingayat community) was first proposed back in 2016
- Grand structure
- The New Anubhava Mantapa, as envisaged now, will be a six-floor structure in the midst of the 7.5-acre plot and represent various principles of Basaveshwara's philosophy.
- It will showcase the 12th Century Anubhava Mantapa (often referred to as the "first Parliament of the world") established by him in Basavakalyan where philosophers and social reformers held debates.
- The building will adopt the Kalyana Chalukya style of architecture.
- The grand structure supported by 770 pillars will have an auditorium with a seating capacity of 770 people.
- It is believed that 770 Sharanas (followers of Basaveshwara) led the Vachana reformist movement in the 12th Century.
- The basement is designed for a Dasoha Bhavana (dining hall) where around 1,500 people eat together.

- On its top, the structure would have a Linga placed on a large pedestal.
- The project also envisages state-of-the-art robotic system, open-air theatre, modern water conservation system, terrace garden, library, research centre, prayer hall, yoga centre etc.

## 2.14.Pravasi Bharatiya Divas 2021

- Context: The 16th edition of the Pravasi Bharatiya Divas (PBD) Convention was held virtually on 9th January 2021. The Pravasi Bharatiya Samman Awards were conferred by the President at the PBD Convention in the valedictory session of the Pravasi Bharatiya Divas celebrations.
- The Pravasi Bharatiya Samman Award (PBSA) is the highest honour conferred on overseas Indians.
- PBSA is conferred by the Hon'ble President of India as part of the Pravasi Bharatiya Divas Convention on Non-Resident Indians, Persons of Indian Origin or an organization/institution established and run by the Non-Resident Indians or Persons of Indian Origin in recognition of their outstanding achievements both in India and abroad.
- Pravasi Bharatiya Divas (PBD) is observed on January 9th every year to mark the contribution of the Overseas Indian community in the development of India.
- On this day in 1915, Mahatma Gandhi, the greatest Pravasi, returned to India from South Africa, which led India's freedom struggle and changed the lives of Indians forever.
- In order to connect India with vast overseas diaspora and bring their knowledge, expertise and skills on a common platform, the PBD Convention - the flagship event of MOIA is organized from January 7th-9th every year since 2003.
- Its format was revised in 2015 to celebrate the PBD once every two years and also to hold theme-based PBD Conferences during the interim period with participation from overseas diaspora experts, policymakers and stakeholders.
- These conventions serve as a platform for the overseas Indian community to engage with the government and people of their ancestral land for mutually beneficial activities.
- These conventions are a means of networking for the overseas Indian community residing in various parts of the world for allowing them to share their experiences in various fields.
- This year, the theme of Pravasi Bharatiya Divas is "Contributing to Aatmanirbhar Bharat".

## 2.15.Konkani language academy

- Context: Delhi Cabinet has approved the setting up of a Konkani language academy in the capital.
- Currently, there are eight functional language academies in Delhi covering Urdu, Sanskrit, Punjabi, Hindi, Maithili-Bhojpuri, Garhwali-Kumaoni-Jaunsari, Sindhi and Tamil.
- Tamil was notified recently.
- The constitution, in its eighth schedule, lists 22 languages as the official languages in the country.
- Konkani has close to 7.5 million native speakers spread across the western coast of the country in the states of Goa, Maharashtra, Karnataka, Kerala, and the Union territories of Daman & Diu and Dadra & Nagar Haveli.



## 22 Languages of 8th Schedule

1-অসমীয়া (Assamese)	2-বেঙ্গলি (Bengali)	3-ગુજરાતી (Gujarathi)	12-ଓଡ଼ିଆ (Oriya)	13-ਪੰਜਾਬੀ (Punjabi)	14-संस्कृतम् (Sanskrit)
4-हिंदी (Hindi)	5-ಕನ್ನಡ (Kannada)	6-کٔشُر, کٔشُر (Kashmiri)	15-سنڌي (Sindhi)	16-தமிழ் (Tamil)	17-తెలుగు (Telugu)
7-कोंकणी (Konkani)	8-മലയാളം (Malayalam)		18-اردو (Urdu)	19-बड़ो (Bodo)	20-সাঁওতালি (Santali)
9-মৈতৈলম্ (Manipuri)	10-मराठी (Marathi)	11-नेपाली (Nepali)	21-मैथिली, मथिली (Maithili)	22-डोगरी (Dogri)	

- A number of Konkani scholars claim that the older version of the language was in fact Prakrit.
- According to the legends, Parashurama, the sixth avatar of Lord Vishnu, shot an arrow in the Sea and instructed the Sea Lord to retreat to the level where the arrow was placed.
- The new land that came into being was called 'Konkan' – corner of the earth.
- The language of this land was called Konkani.
- With Goa being a thriving commercial center in the ancient times, a number of Turks and Arabs visited the place frequently.
- As a result, multiple Persian and Arabic words came into the Konkani language.
- Some of them include dusman (enemy) and karz (debt). Konkani is written in multiple scripts, viz. Devanagari, Roman, Kannada, Malayalam and Perso-Arabic.
- Marathis have always been very critical of Konkani.
- Their common view is, "It a branch of Marathi; it has neither script nor literature; it is not a language."
- When the Portuguese invaded Goa, they tried to force their language and culture on the local people.
- All the Konkani literature was burnt in 1548 and the use of the local language was banned.
- To safeguard their language, a number of locals fled to nearby states and provinces.
- As a result, the language developed different forms.
- The Konkani Wikipedia project took off in 2006 and the site has close to 100 articles now.

## 3. Polity & International Relations

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)
- [Video 4](#)
- [Video 5](#)

### 3.1. Multilingual Call Centre For Aqua Farmers

- Marine Products Export Development Authority (MPEDA) has launched a multilingual call centre for aqua farmers at Vijayawada in Andhra Pradesh
- It will address their technical issues and impart knowledge about efficient farming methods by domain experts round the clock.
- India produced 7, 47,111 tonnes of shrimps last year, of which more than 6% had come from Andhra Pradesh alone from its over 52,000 shrimp farms covering a water spread area of 75,000 Ha.
- The call centre would help the farmers in Andhra Pradesh to seek advice by experienced experts for addressing their concerns and following Best Management Practices (BMPs) to boost production and ensure quality of the produce.

#### Marine Products Export Development Authority (MPEDA)

- The Marine Products Export Development Authority (MPEDA) was set up by an act of Parliament during 1972.
- The erstwhile Marine Products Export Promotion Council established by the Government of India in September 1961 was converged in to MPEDA on 24th August 1972.
- MPEDA is given the mandate to promote the marine products industry with special reference to exports from the country.
- The Act empowers MPEDA to regulate exports of marine products and take all measures required for ensuring sustained, quality seafood exports from the country.
- MPEDA is given the authority to prescribe for itself any matters which the future might require for protecting and augmenting the seafood exports from the country.
- It is also empowered to carry out inspection of marine products, its raw material, fixing standards, specifications, and training as well as take all necessary steps for marketing the seafood overseas.

#### Major Functions of MPEDA

- Registration of infrastructural facilities for seafood export trade.
- Collection and dissemination of trade information.
- Promotion of Indian marine products in overseas markets.

- Implementation of schemes vital to the industry by extending assistance for infrastructure development for better preservation and modernized processing following quality regime.
- Promotion of aquaculture for augmenting export production through hatchery development, new farm development, diversification of species and up gradation of technology
- Promotion of deep-sea fishing projects through test fishing, joint ventures and up gradation & installation of equipments to increase the efficiency of fishing.
- Market promotional activities and publicity.

### 3.2.CIC Reverses Own Order On Electoral Bonds

- The Central Information Commission (CIC) had in January 2020 directed the government to reveal the names of electoral bond scheme donors who wanted their identities to remain confidential.
- In a reversal of that order, it has now ruled that the disclosure of identity of such donors will not serve any larger public interest and will, in fact, violate provisions of the Act
- It was in regard with dismissal of an appeal by a Maharashtra-based activist against State Bank of India's refusal to share the information.
- The RTI applicant, had sought the information in this regard from SBI's CPIO in June, 2018, and appealed to the bank's First Appellate Authority (FAA) after being dissatisfied by the reply.
- However, the FAA also ruled that the "information related to electoral bonds issued to political parties was held by the SBI in fiduciary capacity" and that the names of the donors could not be disclosed as these fell in the bracket of 'third party information'.
- After he filed a second appeal with the CIC, as provided by the RTI Act,
  - ✓ the CIC upheld the SBI's stand, holding that "disclosure of names of donors and the donees may be in contravention of provisions contained in section 8 (1) (e) ( j ) of the RTI Act itself, which exempt a public authority to give a citizen information available to a person in his fiduciary relationship, unless the competent authority is satisfied that the larger public interest warrant the disclosure of such information.
- The electoral bond scheme allows citizens and corporates to buy monetary instruments from SBI and donate them to political parties, who can redeem them for money.
- Citizen groups have long been arguing that in the interest of transparency, the identity of such donors must be disclosed.
- The Central Information Commission has been constituted under the Right to Information Act, 2005.
- The jurisdiction of the Commission extends over all Central Public Authorities.
- The Commission has certain powers and functions mentioned in sections 18, 19, 20 and 25 of the RTI Act, 2005.
- These broadly relate to adjudication in second appeal for giving information; direction for record keeping, suo motu disclosures receiving and enquiring into a complaint on inability to file RTI etc; imposition of penalties and Monitoring and Reporting including preparation of an Annual Report.
- The decisions of the Commission are final and binding.

## Electoral Bonds Scheme Notified

*To help cleanse the political funding system in the country*

### Nature

- Bearer instrument in the nature of a Promissory Note
- Interest free banking instrument

### Eligibility

- A citizen of India or a body incorporated in India
- On fulfillment of all the extant KYC norms
- By making payment from a bank account



### Value

- Issued/ Purchased in multiples of Rs.1,000, Rs.10,000, Rs.1,00,000, Rs.10,00,000 and Rs.1,00,00,000
- Available from the Specified Branches of the State Bank of India (SBI)

### Lifespan

- Shelf life of only 15 days
- Can be used for making donation only to the political parties registered u/s 29A of the Representation of the Peoples Act, 1951

### Period of Purchase

- Available for purchase for a period of 10 days each in the months of January, April, July and October, as may be specified by the Government

## 3.3.Provisions Regarding Advisory Board For Wages Code

- The Central Information Commission has been constituted under the Right to Information Act, 2005.
- The jurisdiction of the Commission extends over all Central Public Authorities.
- The Commission has certain powers and functions mentioned in sections 18, 19, 20 and 25 of the RTI Act, 2005.
- These broadly relate to adjudication in second appeal for giving information; direction for record keeping, suo motu disclosures receiving and enquiring into a complaint on inability to file RTI etc; imposition of penalties and Monitoring and Reporting including preparation of an Annual Report.
- The decisions of the Commission are final and binding.
- It will consist of persons to be nominated by the Central government representing employers and employees, independent persons, and five representatives of such State governments as may be nominated by the Central government.
- Here, one-third of the members will be women and a member will be appointed by the Central government as the chairperson of the board.

### Board's duties

- The Central Advisory Board will, from time to time, advise the Centre on issues relating to the fixation or revision of minimum wages and other related matters.
- It will suggest ways to increase employment opportunities for women, and the extent to which women may be employed in such establishments or employments as the Central government may, by notification.
- The law says the Central Advisory Board will regulate its own procedures including those of the committees and sub-committees.
- Sub-sections of Section 67 deal with rules and regulations and terms of the members of the board.

- Section 69 of the Code says the Payment of Wages Act, 1936, the Minimum Wages Act, 1948, the Payment of Bonus Act, 1965 and the Equal Remuneration Act, 1976 are being repealed.
- In July, the Centre release the draft of rules for the Code.
- One of the key provisions talks about the fixing of minimum wages.
- According to the draft, for calculating the minimum rate of wages on a day basis, six criteria can be used:
  - ✓ standard family of four (self, spouse and two children)
  - ✓ net intake of 2,700 calories per day per consumption unit,
  - ✓ 66 metres cloth per year per standard working-class family
  - ✓ housing rent expenditure to constitute 10 per cent of food and clothing expenditure
  - ✓ fuel
  - ✓ electricity
- Other miscellaneous items of expenditure to constitute 20 per cent of minimum wage, and expenditure for children's education, medical requirement, recreation and expenditure on contingencies to constitute 25 per cent of minimum wage.

### Draft rule proposals

- The draft proposed to divide geographical areas into three categories: metropolitan, non-metropolitan and rural.
- There is a proposal to form a technical committee to suggest, modify, add or delete particular occupations in the tentative list of four categories: unskilled, semi-skilled, skilled and highly skilled.
- The draft included 123 occupations under unskilled category comprising loader/unloader, wood cutter, office boy, cleaner, gate man, sweeper, attendants, beldar etc.
- The semi-skilled category has 127 types of occupation which include butler/cook, khalasi,, masalchi, dhobi and jamadar.
- The skilled category has 320 types of occupations including munshi, typist, book keeper, librarian, Hindi translator and data entry operator.
- The highly skilled category has 111 types of occupations, including armed security guards, head mechanics, compounder and blacksmith.

## 3.4.Jharkhand Launches Cyber Crime Prevention Scheme

- Context: Aiming to “protect women” from growing cybercrimes, Jharkhand government announced the launch of Cyber Crime Prevention against Women and Children Scheme (CCPWC) in the state.
- It aims to start online cyber crime registration, capacity building, awareness creation and research and development units.
- It is emphasized on police ‘modernization’ and the officers to make a robust system to tackle growing cybercrime.

- In the last five years, 4803 cyber crimes have surfaced in Jharkhand, out of which 1536 cases have been disposed.
- It was also decided in the meeting that students from the various schools statewide should be trained for 'community policing'.
- There are 36,000 sanctioned posts of Home Guards in Jharkhand, out of which 19000 are paid on daily basis based on their work.
- However, all don't get the work on a daily basis.
- It was decided that the government offices should explore the possibility of giving them jobs as security guards.
- The state is also planning to get trained sniffer dogs for crime prevention.



### 3.5. Bangladesh wants to join Trilateral Highway

- Context: For enhancing connectivity between South and South East Asia, Bangladesh has expressed interest to join the ongoing India-Myanmar-Thailand trilateral highway project.
- In the same spirit, India has requested the neighbouring country to allow connectivity from West Bengal (Hilli) to Meghalaya (Mahendraganj) via Bangladesh.
- Since India has been working towards increasing its engagements with South East Asia under its 'Act East Policy' the India-Myanmar-Thailand Trilateral Highway is one of the biggest infrastructure projects in the region.
- This highway is expected to help greatly in the transport connectivity – 1,360 km long cross border highway network and is currently under construction, expected to be completed by 2021.

- It will be linking Moreh(India) - Bagan(Myanmar) - Mae Sot(Thailand)
- India has agreed to help build two vital road sections – Kalewa-Yagyi of 120 km, and 69 bridges on the Tamu-Kyigone-Kalewa (TKK).
- From Indian side the work is going on since 2017 and is expected to be completed by 2021.
- The decision to extend the Trilateral Highway to Lao PDR and Cambodia to help deepen the India-ASEAN Relations was taken at the ASEAN-India Commemorative Summit 2012.
- To commemorate the historic significance of the road from Mujib Nagar to Nodia on Bangladesh-India border during the Liberation War, Bangladesh has proposed to name it as “Shadhinota Shorok”.
- India has also requested for one Land Port, beginning with Agartala-Akhaura and for transportation of goods from Chattogram port to the North East of India, it has proposed that its trucks use the Feni Bridge, on completion.
- It has been decided that the recently-constituted High Level Monitoring Committee headed by Secretary, Economic Relations Division from Bangladesh and the High Commissioner of India in Dhaka will regularly review the progress of the LOC Projects for their early completion.

### 3.6. Assam’s Bill to Abolish State-Run Madrassas

- Context: The Assam government, tabled a bill to abolish all state-run madrassas and convert those into general schools with effect from April 1, 2021.
- The bill proposes to abolish two existing acts – The Assam Madrassa Education (Provincialisation) Act, 1995, and The Assam Madrassa Education (Provincialisation of Services of Employees and Re-Organisation of Madrassa Educational Institutions) Act, 2018.
- All madrassa institutes will be converted into upper primary, high, and higher secondary schools with no change of status, pay, allowances and service conditions of the teaching and non-teaching staff.
- Madrasa education in Assam, which has over 600 such state-run institutes, was introduced in 1915.
- The government annually spends Rs 260 crore on the state-run madrasas and the Sanskrit “tols” (Sanskrit-learning centres).

**Freedom of Religion in India**

The Indian Constitution was adopted on 26th January 1950. It guarantees freedom of religion for all citizens without discrimination

**ARTICLE 25**  
Right to freely profess, practice and propagate one's religion subject to public order, morality & health

**ARTICLE 26**  
Right to establish institutions for religious purposes & to manage own affairs in matters of religion

**ARTICLE 28**  
No religious instruction shall be provided in educational institution wholly maintained by State funds

**Many Religions, One Nation**

- Assam has 189 high madrassas. Apart from the conventional subjects such as mathematics, science, English, etc, they have a subject on theology which carries 50 marks.
- The government decided to drop this subject and remove the word “madrasa” from the institutes.
- The government is also converting 97 state-run Sanskrit “tols” into study centres of Indian history and ancient Indian culture.

### 3.7. Madhya Pradesh Conversion Law

- Context: The Madhya Pradesh cabinet approved a proposed law to regulate interfaith marriages in the state that provides for up to 10 years in jail for “forcing women, minors, and people from Scheduled Castes and Scheduled Tribes to undergo religious conversion” with a special clause on no punitive action against those returning to their ancestral religion.
- The proposed law called the Madhya Pradesh Dharmik Swatantrata (Freedom of Religion) Bill, 2020 says “Patrik Dharm me Wapsi” (return to the father’s religion) will not be treated as conversion.
- Under this legislation, the re-conversion to the ancestral religion will not be treated as conversion
- Ancestral religion is defined as the religion of the father of the person at the time of his birth.
- Re-conversion will not be a punishable offence under this law because it is more a realisation of a mistake than a crime.
- The proposed legislation will replace the 1968 Madhya Pradesh Freedom of Religion Act, and is different from the Uttar Pradesh government’s legislation promulgated through an ordinance on November 25.
- Unlike the MP law, the UP ordinance does not provide for parental property rights to children of an interfaith marriage, monthly maintenance and a Rs50,000 fine for an inter-religion union without permission of the district magistrate.
- In UP, the fine amount is Rs25,000.
- The jail terms in the two laws are equal.
- The bill seeks to prohibit religious conversions or an attempt of conversion by means of misrepresentation, allurement, threat, undue influence, coercion, marriage, and any other fraudulent means.
- Such a conspiracy and abetting a person for conversion has also been prohibited.
- According to a draft of the bill approved, The forced conversion of a woman, minor, scheduled caste and scheduled tribe will attract 2-10 years imprisonment and a minimum fine of Rs50,000.
- Mass forced conversion will attract 5-10 years of jail term and fine of up to Rs1 lakh. Burden of proof will lie on the accused.
- The forceful conversions and marriages will be a cognisable offence and non-bailable.
- There will be a provision for declaring interfaith forceful marriages and forced conversion null and void.
- The person and religious gurus have to inform the district magistrate at least 60 days prior to the scheduled date of marriage.



- The violation of this rule will attract 3-5 years of jail and a minimum fine of Rs50,000.
- The bill doesn't have any provision to deal with past cases of forced conversion and also there is no time limit of lodging a complaint with police after marriage.
- Like the Dowry Prohibition Act, which has a time limit of lodging an FIR up to seven years of marriage.
- States are opting for laws on freedom of religion for marriage ('love jihad').
- The Prohibition of Unlawful Conversion of Religion Ordinance, 2020, was notified by Uttar Pradesh last month.
- Haryana and Karnataka announced intentions to enact such laws.
- The law has come under sharp criticism for the concept of 'love jihad' which does not have any constitutional or legal basis.
- Article 21 of the constitution guarantees individuals the right to marry a person of one's choice.
- Article 25 gives freedom of conscience, the practice and conversion of religion of one's choice including not following any religion
- Supreme Court of India in its several judgements has held that the state and the courts have no jurisdiction over an adult's absolute right to choose a life partner.

## Another law against 'love jihad'



A look at provisions of the Madhya Pradesh Dharmik Swatantrata (Freedom of Religion) Bill 2020

Up to **10 years** in jail and **₹1 lakh** in fine for violators

Forced conversions and marriages a **cognisable and non-bailable offence**

**Burden of proof** lies with the accused

**"Ghar wapsi"** not treated as conversion i.e. no punitive action against those who return to their ancestral religion

**"MP government has come up with the toughest rule against forced conversion in India."**

**NIROTTAM MISHRA,**  
Madhya Pradesh home minister

### 3.8.Election Commission to push for absentee vote, digi-ID, new service rules

- Context: Four items on the Election Commission's agenda, which could go a long way in increasing the voter base and facilitate higher turnout during polls, will likely come up before the government in January.

- Linkage of the Aadhaar number with voter ID, allowing voter registration as soon as a person turns 18 years, ensuring gender-neutral voting rights to service voters and launching of the digital voter ID for new voters have been on the to-do list of the EC for some time now.
- While the first three require amendments to the Representation to People's Act, 1951, the fourth one – a digilocker-enabled version of the voter ID – is set to be launched on January 25 at a National Voter's Day event.
- All new voter cards issued from next month will be downloadable, like the e-Aadhar.
- It is also expected that all or some of the required amendments to the RP Act may be brought in through the Budget session of Parliament.
- These issues are awaiting the final go ahead from the government.
- A major item on the EC list is the Aadhaar-voter ID linkage which it wants to bring in to weed out duplications and misrepresentations from the electoral rolls.
- Aadhaar linkage and voter authentication are also considered critical to the commission's plans to work towards electronic/Internet-based voting and for giving 'remote' voting rights to domestic migrants.
- The Aadhar linkage is pending an amendment to the Representation of People's Act.
- In discussions held until December 2019, the EC had assured that privacy and data safety-related concerns would be protected.
- It is now waiting for the government to move the amendment to the Cabinet for approval.
- One of these is a proposed amendment to Section 14(b) of the RP Act, which looks at registration for first time voters as they turn 18 years of age.
- Currently only those who turn 18 on January 1 can apply to register as a voter that year.
- While the poll panel is expected to seek multiple registration dates, it is more likely that a twice-a-year format may come in to start with.

### Linking of Aadhaar Number with Voter ID

**GOAL** To weed out duplications and misrepresentations from electoral rolls

Enable electronic/ internet-based voting and giving 'remote' voting rights to domestic migrants

**STAGE** Govt to move the amendment to the Cabinet for approval

Needs amendment to Section 14(b) of the RP Act, 1951



### Registering 18 Year Olds as Voters at the Earliest

**GOAL** EC seeking multiple registration dates, but it is more likely that govt will accept a twice-a-year format initially

**STAGE** Require amendments to the Representation to People's Act, 1951



### Ensuring Gender-Neutral Voting Rights to Service Voters

**GOAL** To permit husbands and children of a service voter to be enrolled as voters

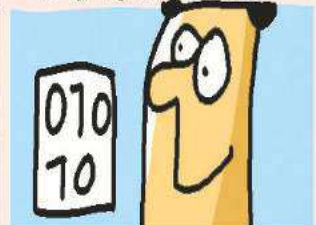
**STAGE** Involves proposed amendments to Section 20(6) of the Act



### Offering Digital Voter-ID to Freshly Registered Voters

**GOAL** To make all new voter cards issued from January downloadable on the lines of the e-Aadhaar model

**STAGE** To be launched on Jan 25, the National Voter's Day



- The third recommendation pertaining to voting rights involves amendments to Section 20(6) of the Act – to allow the husband of a female service personnel to be registered as a service voter where she holds office.
- As of now, the sub section (8) of Section 20 of the Representation of People Act only allows the wife of a male 'service' voter to cast her vote as a service voter.
- This facility is not available to the husband of a female service voter.
- The current rules also do not permit children of a service voter residing with him to be enrolled as service voters.
- The EC has been arguing against these clauses pointing out that it amounted to denial of voting rights to many eligible voters.
- It has recommended to the law ministry that a more gender-neutral word, spouse, be used so that husbands residing with serving wives may also be able to vote.



Ministry of Health and Family Welfare  
Government of India

## Cabinet Decision

### Medical Termination of Pregnancy (Amendment) Bill, 2020

1

Enhanced the upper gestation limit for aborting pregnancies, from 20 to 24 weeks for special categories of women

3

It will strengthen access to comprehensive abortion care, under strict conditions, without compromising service & quality of safe abortion

5

It will ensure dignity, autonomy, confidentiality and justice for women who need to terminate pregnancy

2

No upper gestational limit for terminating pregnancies with substantial foetal abnormalities diagnosed by Medical Board

4

It is a step towards safety and well-being of women

## 3.9. Argentina's Legalisation Of Abortion

- Context: Argentina's Congress legalised abortions up to the 14th week of pregnancy

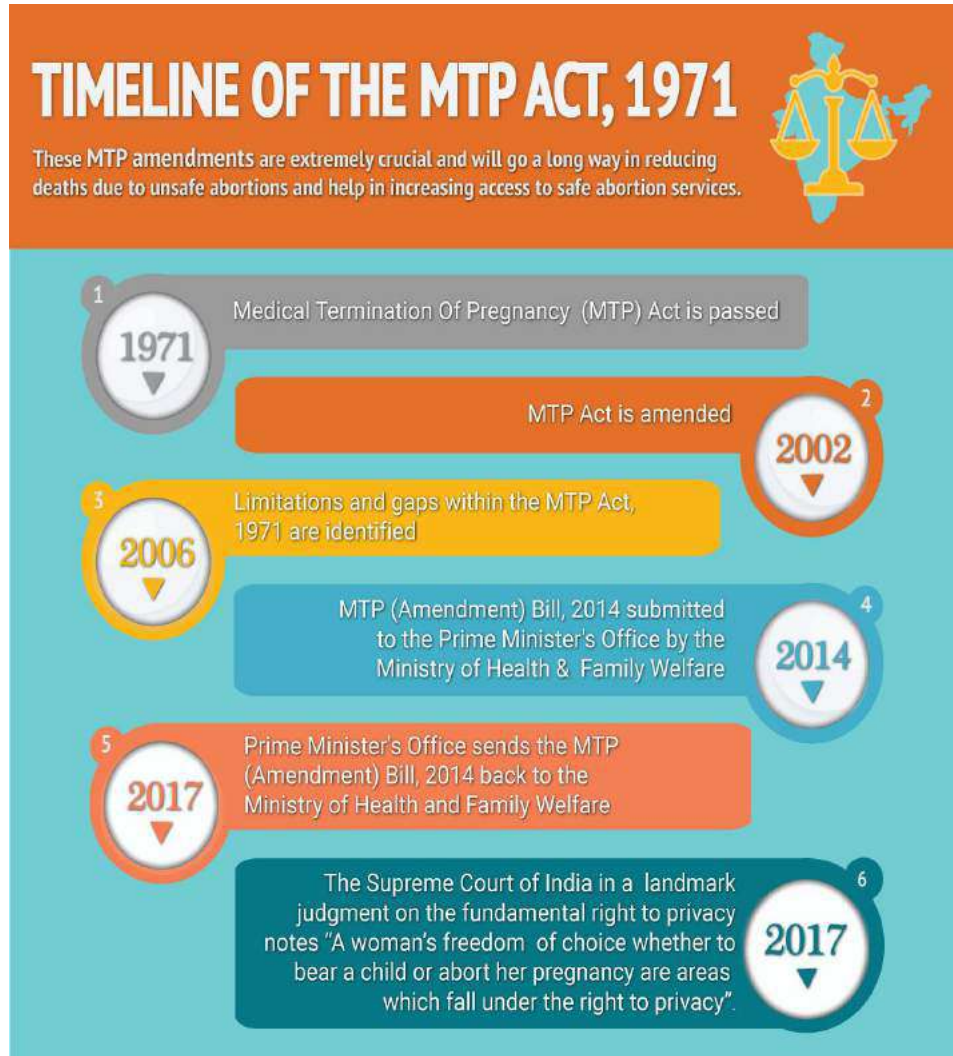
### What does this bill mean?

- Prior to the passing of the bill, abortions were only permitted in cases of rape or when the woman's health was at serious risk.

- Activists have been campaigning for years, calling for an overturning of this law that has been in existence since 1921.
- The bill calls for greater autonomy for women over their own bodies and control of their reproductive rights, and also provides better healthcare for pregnant women and young mothers.

### Why is it a landmark bill?

- Prior to this, girls and women were forced to turn to illegal and unsafe procedures because abortion was against the law in Argentina.
- For girls and women from socio-economically disadvantaged backgrounds, the scope of access to safe medical procedures for abortion was even narrower.



- According to Human Rights Watch, unsafe abortion was the leading cause of maternal mortality in the country.
- The Catholic Church and the evangelical community wield immense power and influence in Argentina and had strongly opposed the passing of this bill.
- For several decades, following the beliefs of the Catholic Church, even the sale of contraceptives was prohibited in the country.

### 3.10.HUL's Policy To Help Staff Facing Abuse

- Context: Hindustan Unilever Ltd (HUL) has rolled out a policy to help employees cope with domestic abuse
- Employees who are subject to, or are survivors of, acts of physical or emotional abuse outside the workplace can access urgent medical care and psychological counselling for themselves and their families, besides paid leave of up to 10 days.
- This policy seeks to protect and grant relief to employees who are survivors of abuse, or acts of physical or emotional abuse beyond the workplace, such as in their personal (home) or other public spaces, including online

- The policy will cover more than 20,000 employees of HUL, including white-collar and blue-collar workers.
- Globally, Unilever launched the framework in October across all the markets it operates in.
- The move follows reports of rising instances of domestic violence, as employees started working from home since the worldwide lockdowns imposed to combat covid-19.
- One in three women and one in seven men encounter abuse at some point in their lifetime, according to HUL.
- The harassment policies that are right now in place, the POSH Act, are restricted to workplace harassment. Now, with the home being an extended workplace, perhaps it is a good idea to actually cover even those form of harassment.
- HUL's initiative may set a precedent for India Inc. that has been embracing HR policies with an aim to make workplaces equitable and inclusive.
- Last year, Tata Steel introduced a policy covering partners of employees who identify as part of the LGBTQ+ community to avail HR benefits permissible under the law.
- The idea is to provide more suitable opportunities to people of the community and end any form of stigma attached to them that might hinder them from getting employment.
- In a new policy announced in August, food ordering platform Zomato allowed all women (including transgender people) to avail up to 10 days of period leaves in a year.

### 3.11. India to open missions in Estonia, Paraguay and the Dominican Republic

- Context: The government announced that it would open three missions in Estonia, Paraguay and the Dominican Republic in 2021.
- The opening of the missions will help expand India's diplomatic footprint, deepen political relations, enable growth of bilateral trade, investment and economic engagements, facilitate stronger people-to-people contacts, bolster political outreach in multilateral fora and help garner support for the foreign policy objectives
- The move would also help the diaspora members residing in these countries.
- The government had announced the opening of 18 missions in 2018 but not all of them have been established yet, and the opening of the newly announced missions may be further delayed by the impact of the pandemic.
- Estonia welcomed the decision saying it would strengthen ties in trade and cybersecurity in particular.
- Both Paraguay and the Dominican Republic had set up missions in Delhi in 2006.
- The decision to open these three missions is a forward-looking step in pursuit of our national priority of growth and development or 'Sabka Saath Sabka Vikas'.
- Enhancement of India's diplomatic presence will provide market access for companies and bolster exports of goods and services.

### 3.12.3 States, 3 Anti-conversion Laws

- Context: The Madhya Pradesh government is set to follow two other BJP-ruled states – Uttar Pradesh and Himachal Pradesh – in passing an anti-conversion law that outlaws religious conversion solely for the purpose of marriage. The MP Cabinet has approved the Freedom to Religion Bill, 2020 as an Ordinance.
- While a common feature of all three laws is the declaration of such marriages as “null and void” and the penalising of conversions done without the prior approval of the state, they differ in the quantum of punishment prescribed, and in attributing the burden of proof that a conversion is lawful.
- Also, the MP law seeks to protect the rights of women of such marriages.

#### Prior notice

- The MP law requires a 60-day prior “declaration of the intention to convert” to the District Magistrate for conversion to be valid, following which a couple from different religions can be legally married.
- The Uttar Pradesh Prohibition of Unlawful Conversion of Religious Ordinance, 2020 promulgated in November, too requires a 60-day notice but also requires the Magistrate to conduct a police inquiry to ascertain the real intention behind the conversion.
- The Himachal Pradesh Freedom of Religion Act, 2019, requires a 30-day prior “declaration of intention to convert”.

#### Who can investigate

- Section 4 of the MP law states that there cannot be an investigation by a police officer except on the written complaint of the person converted or the person’s parents/siblings.
- Guardians of the person converted can file a complaint only with the permission of a court.
- The MP law also says that no police officer below the rank of a sub-inspector can investigate an offence under the law.
- The Himachal law says that prosecution cannot be initiated without the prior sanction of an officer not below the rank of a sub-divisional magistrate.
- The UP law allows the same people as allowed by the MP law to file a complaint.

#### Burden of proof

- The MP law places on the person converted the burden of proving that the conversion was done without any coercion or illegality.
- The Himachal law has a similar provision.
- The UP law goes further, placing this burden of proof on people who “caused” or “facilitated” the conversion and not on the individual.
- Even in the police inquiry, if the Magistrate is not satisfied, criminal action under Section 11 of the Ordinance can be initiated against persons who “caused” the conversion.
- This includes those who committed the offence; omitted to act and prevent the offence; and aided, abetted, counselled or procured people for committing the offence.

## Maintenance & inheritance

- While declaring as “null and void” any marriage in which either the husband or the wife has converted, even consensual, unless they have given prior notice to the state government, MP’s new law at the same time seeks to protect the right of women and her child from the “null and void” marriage.
- Under Section 9, the woman whose marriage has been declared null and void under this legislation, and her children, will have a right to maintenance.
- The law does not, however, provide a recourse for ensuring the marriage can be protected subsequently.
- Neither the UP nor the Himachal law has such provisions.

## Jail terms in UP, MP and Himachal Pradesh

JAIL TERMS, AS PRESCRIBED			
	Mass Conversion	Conversion of a minor/SC/ST	Any other conversion
Uttar Pradesh	3-10 years	2-10 years	1-5 years
Madhya Pradesh	5-10 years	-	1-5 years*
Himachal Pradesh	-	2-7 years	1-5 years

*\* MP bill also prescribes 3-10 years jail for using "misrepresentation" or "impersonation" for religious conversion*

## 3.13. Vertical And Horizontal Reservations

- Context: The Supreme Court has clarified the position of law on the interplay of vertical and horizontal reservations.

### What are vertical and horizontal reservations?

- Reservation for Scheduled Castes, Scheduled Tribes, and Other Backward Classes is referred to as vertical reservation.
- It applies separately for each of the groups specified under the law.
- Horizontal reservation refers to the equal opportunity provided to other categories of beneficiaries such as women, veterans, the transgender community, and individuals with disabilities, cutting through the vertical categories.

### How are the two categories of quotas applied together?

- The horizontal quota is applied separately to each vertical category, and not across the board.
- For example, if women have 50% horizontal quota, then half of the selected candidates will have to necessarily be women in each vertical quota category – i.e., half of all selected SC candidates will have to be women, half of the unreserved or general category will have to be women, and so on.

- The court held that if a person belonging to an intersection of vertical-horizontal reserved category had secured scores high enough to qualify without the vertical reservation, the person would be counted as qualifying without the vertical reservation, and cannot be excluded from the horizontal quota in the general category.
- A similar question had arisen in the case of vertical reservations in the past, and the law had been settled similarly:
- If a person in the SC category secures a higher score than the cut-off for the general category, the person would be counted as having qualified under the general category instead of the SC quota.

### **What was the government's argument?**

- The government's policy was to restrict and contain reserved category candidates to their categories, even when they had secured higher grades.
- The court said this was tantamount to ensuring that the general category was 'reserved' for upper castes.

### **What was the court's reasoning?**

- The court did the math.
- Examining a number of hypothetical scenarios, it concluded that if both vertical and horizontal quotas were to be applied together – and consequently, a high-scoring candidate who would otherwise qualify without one of the two reservations is knocked off the list – then the overall selection would have candidates with lower scores.
- On the other hand, if a high-scoring candidate is allowed to drop one category, the court found that the overall selection would reflect more high-scoring candidates.
- In other words, the “meritorious” candidates would be selected.
- The ruling strikes at the heart of the debate on “merit versus reservation”, where reservation is sometimes projected as being anti-merit.

### **Mandal Commission**

- In exercise of the powers conferred by Article 340 of the Constitution, the President appointed a backward class commission in December 1978 under the chairmanship of B. P. Mandal.
- The commission was formed to determine the criteria for defining India's “socially and educationally backward classes” and to recommend steps to be taken for the advancement of those classes.
- The Mandal Commission concluded that India's population consisted of approximately 52 percent OBCs, therefore 27% government jobs should be reserved for them.
- The commission has developed eleven indicators of social, educational, and economic backwardness.
- Apart from identifying backward classes among Hindus, the Commission has also identified backward classes among non-Hindus (e.g., Muslims, Sikhs, Christians, and Buddhists).
- It has generated an all-India other backward classes (OBC) list of 3,743 castes and a more underprivileged “depressed backward classes” list of 2,108 castes.

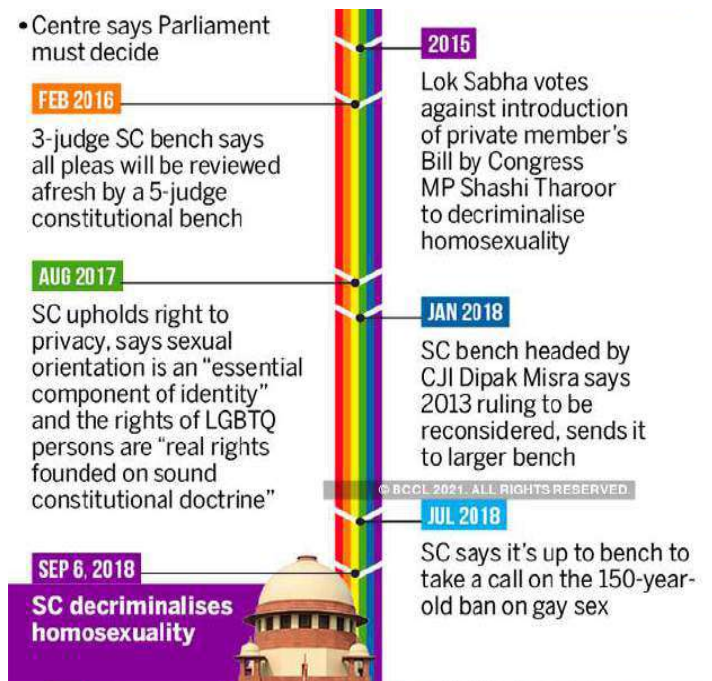


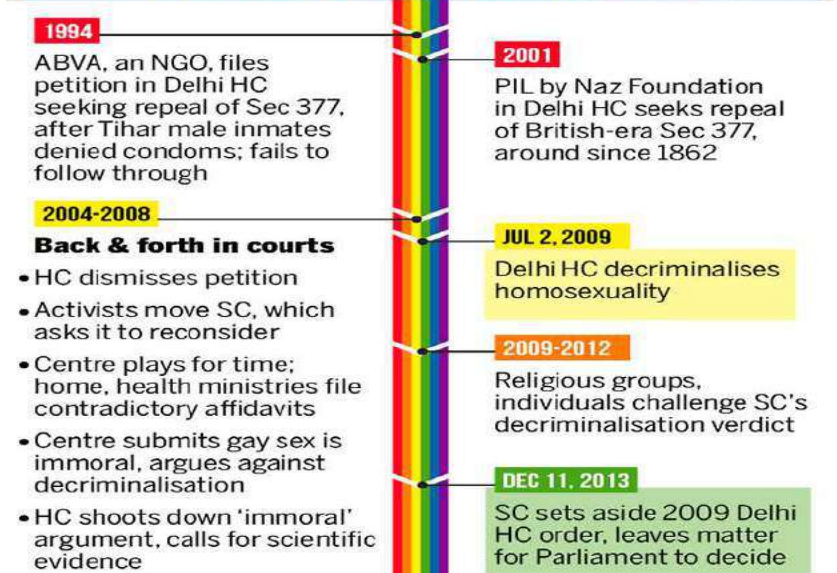
## Constitutional Provisions Governing Reservation in India

- Part XVI deals with reservation of SC and ST in Central and State legislatures.
- Article 15(4) and 16(4) of the Constitution enabled the State and Central Governments to reserve seats in government services for the members of the SC and ST.
- The Constitution was amended by the Constitution (77th Amendment) Act, 1995 and a new clause (4A) was inserted in Article 16 to enable the government to provide reservation in promotion.
- Later, clause (4A) was modified by the Constitution (85th Amendment) Act, 2001 to provide consequential seniority to SC and ST candidates promoted by giving reservation.
- Constitutional 81st Amendment Act, 2000 inserted Article 16 (4 B) which enables the state to fill the unfilled vacancies of a year which are reserved for SCs/STs in the succeeding year, thereby nullifying the ceiling of fifty percent reservation on total number of vacancies of that year.
- Article 330 and 332 provides for specific representation through reservation of seats for SCs and STs in the Parliament and in the State Legislative Assemblies respectively.
- Article 243D provides reservation of seats for SCs and STs in every Panchayat.
- Article 233T provides reservation of seats for SCs and STs in every Municipality.
- Article 335 of the constitution says that the claims of STs and STs shall be taken into consideration constitutently with the maintenance of efficacy of the administration.

## 3.14. Clear Stand On Same-sex Marriages

- Context: The Delhi High Court has granted the Centre and the Delhi government one last chance to file a response to petitions seeking the recognition and registration of same-sex marriages under the Hindu Marriage Act, the Special Marriage Act and the Foreign Marriage Act.
- The PIL seeking the recognition of same-sex marriages under the Hindu Marriage Act has been filed
- The court last year observed that the statute is gender neutral and the Centre must interpret the law in favour of citizens of India.
- The Delhi High Court granted a last opportunity to the Centre and the Delhi government to respond to three separate pleas, including by two couples, seeking that same-sex marriage be recognised by law.
- In the first petition it has been contended that marriages between same sex couples are not possible despite the Supreme Court decriminalising consensual homosexual acts and sought a declaration to recognise same sex marriages under the Hindu Marriage Act (HMA) and Special Marriage Act (SMA).





- The two other pleas are – one filed by two women seeking to get married under the SMA and challenging provisions of the statute to the extent it does not provide for same sex marriages, and the other by two men who got married in the U.S. but were denied registration of their marriage under the Foreign Marriage Act (FMA).
- The petition filed by equal rights activists contended that homosexuality has been decriminalised by the Supreme Court but same sex marriages are still not being allowed under the HMA provisions.
- This is despite the fact that the said Act does not distinguish between heterosexual and homosexual marriage if one were to go by how it has been worded.
- It very clearly states that marriage can indeed be solemnised between 'any two Hindus'.
- In this view of the matter, it can be stated that it is against the constitutional mandate of non-arbitrariness if the said right is not extended to homosexual apart from heterosexual couples
- The denial of this right to homosexual couples is also against the mandate of various international conventions that India is signatory to.
- The Centre had earlier told the High Court that marriage between same sex couples was "not permissible" as it was not recognised by "our laws, legal system, society and our values".
- The petition said the case for extending the same right of marriage to 'lesbian, gay, bisexual and transgender' (LGBT) persons as those enjoyed by everyone else is neither radical nor complicated and rests on two fundamental principles that underpin International Human Rights Law – equality and non-discrimination.
- It sought a declaration stating that Section 5 of the HMA does not distinguish between homosexual and heterosexual couples and the right of same sex couples to marry should be recognised under the Act.
- Without marriage, the petitioners are strangers in law.
- Article 21 of the Constitution of India protects the right to marry a person of one's choice and this right applies with full force to same-sex couples, just as it does to opposite-sex couples, is contended in the plea.
- Non recognition of their marriage by the laws here continues to disentitle them to travel as a married couple to India and spend time with their families during Covid 19 pandemic.

## 3.15. Confessions Before Priests

- Context: Allow Us To Confess Before A Priest Of Our Own Choice : Five women From Jacobite Faction Of Malankara Church Moves Supreme Court
- The Supreme Court agreed to consider a petition filed by a group of women against the compulsory nature of sacred confessions to priests in Christianity.
- Petitioners have argued that the confessions are being abused.
- But Court said the veracity of such allegations would depend on the individual facts in every case.
- The court has to see whether confessions are an integral part of the religion.
- The major issue revolves around the forced confessions violating the right to privacy.

### Earlier interventions

- Court has earlier intervened in questions concerning the personal laws and customs of communities like the Bohra Muslims and Parsis.
- The court could examine the issues in the petition as they came within the ambit of the questions of faith, rights of women and equality
- Attorney General when asked for an opinion by the court, he said the whole issue stemmed from the Jacobite-Orthodox dispute.
- The Supreme Court had upheld the validity of the 1934 Constitution of the Malankara Orthodox Syrian Church to govern the parishes under the church.

### Similar plea

- Earlier, the court had agreed to examine a separate but similar plea by members of the Malankara Syrian Church in Kerala seeking a declaration that forced confessions were unconstitutional by nature.
- The petition had said these confessions may involve sexual exploitation of parishioners.
- Church is forcing the members to mandatorily confess and mandatorily make payment of monies/ dues and the said practises indulged in by the church are of public nature, affecting human dignity and liberty of thought and that the believers have been forced to remain meek and quiet out of fear of removal from parish membership, social ostracisation, etc,

## 3.16. 'Institutions Of Eminence' Campuses In Foreign Countries

- Context: Indian universities and colleges with the Institutions of Eminence (IOEs) tag, which include several IITs, will now be able to set up campuses in foreign countries with the University Grants Commission (UGC) issuing fresh guidelines on the same.
- The Education Ministry had launched the IoE scheme in 2018 as per which 20 institutions were to be selected – 10 public and 10 private ones – that would enjoy complete academic and administrative autonomy.

- The new guidelines have been issued in line with the new National Education Policy (NEP) as per which foreign universities will be allowed to set up campuses in India and top Indian institutes in foreign countries.
- According to the norms, IoEs shall be permitted to start a maximum of three off-campus centres in five years, but not more than one in an academic year.
- They will, however, require approval from as many as three ministries – education, home and external affairs – before they can venture out.
- Institutions of Eminence... shall be permitted to set up new off-campus centres-maximum of three in five years and not more than one in one academic year by following the procedures
- An institution willing to establish an off-campus centre shall have to submit an application to the Ministry of Education containing its 10-year 'strategic vision plan' and a five-year 'rolling implementation plan' which would include the plans for academics, faculty recruitment, student admissions, research, infrastructure development, finance and administration, etc.
- The IoEs shall be permitted to start an off-campus centre in an interim campus, subject to the condition that the permanent campus shall be ready "within a reasonable time period not exceeding five years".
- The institutes shall be allowed to start new off campuses with the prior approval of the education ministry after receiving no objection certificate from the Ministry of External Affairs and Ministry of Home Affairs.
- IoEs shall ensure that the norms and standards of offshore campus shall be the same as that maintained in the main campus for similar courses, and shall follow similar admission criteria, curriculum, exam and evaluation system.
- In the first lot, Indian Institutes of Delhi, IIT Bombay and the Bengaluru-based Indian Institute of Science (IISc) were awarded the IoE status in the public sector, and Manipal Academy of Higher Education and BITS Pilani in the private sector, while the Jio Institute by Reliance Foundation was given the tag in Greenfield category.
- In 2019, five public institutions including Delhi University, Banaras Hindu University, University of Hyderabad, IIT-Madras and IIT-Kharagpur were granted the status.
- A Letter of Intent for granting the IoE status was also issued to five private universities – Amrita Vidyapeetham and Vellore Institute of Technology in Tamil Nadu, Odisha's Kalinga Institute of Industrial Technology, Jamia Hamdard University in Delhi and Satya Bharti Foundation's Bharti Institute in Mohali.
- While the government will provide funding upto Rs 1,000 crore to public institutions with IoE tag, in case of the private institutions proposed as Institutions of Eminence, there will be no financial support.
- But they will be entitled to more autonomy as a special category Deemed University.
- A proposed off-campus centre is expected to achieve a teacher-student ratio of 1:20 initially, and 1:10 by the end of five years.

- The faculty for this purpose shall include the regular faculty, adjunct faculty, overseas faculty, visiting faculty, contractual faculty, industry faculty and tenure track faculty or faculty as otherwise permitted by the Statutory Council concerned.
- It adds that at least 60 per cent of the appointed faculty members should be on permanent basis.
- The institute should also have enrolled a minimum of 500 students on its rolls under regular classroom mode with one third PG/research students

### 3.17. Supreme Court's Ruling On Farm Laws

- Context: The issues in the farm bills are complex. But how the Supreme Court is interpreting its function is something to ponder upon.
- The apex court has suspended the implementation of the farm laws, and created a committee to ascertain the various grievances. But it is not clear what the legal basis of this suspension is.
- The court's action is seen as a violation of separation of powers.
- It also gives the misleading impression that a distributive conflict can be resolved by technical or judicial means.
- It is also not a court's job to mediate a political dispute.
- Its job is to determine unconstitutionality or illegality.
- Even in suspending laws there needs to be some prima facie case that these lapses might have taken place.
- But instead of doing a hearing on the substance it has simply decided to create a committee to hear farmers' grievances and wade into political territory.
- It has set a new precedent for putting on hold laws passed by Parliament without substantive hearings on the content of the laws
- It has muddied all the possible lines of judicial procedure, where it is not clear what the locus standi of different counsel are, what are the specific prayers that need to be addressed and how the court's remedies address them.
- It has not really heard the farmers, whose counsel were not fully heard before the passing of orders.
- The framework governing agriculture needs serious reform.
- The objective of reform must be to improve farmers' incomes and well-being, to increase crop diversification, make agriculture more environmentally sustainable, make subsidies less counterproductive, keep food inflation down, and ensure that nutrition reaches all.
- Achieving all these objectives in no easy task, especially in states like Punjab.
- The court has also positioned itself as an arbiter of national security by taking seriously the Attorney General's contention that farmers' protests may be the vehicle for the Khalistan movement.
- This is delegitimisation of protest by misdirection.
- It is preparing the ground for the protests on a significant scale being rendered illegal.

- What the farmers need is clarity of law where relevant, and the right to make their demands heard through the political process and civil society.
- It has set a bad precedent where implementation of laws can be suspended without legal basis

### 3.18. Jharkhand Combined Civil Services Examination Rules 2021

- Context: Jharkhand has for the first time framed rules pertaining to Jharkhand Civil Services.
- This will supersede The Bihar Civil Services (Executive Branch) and The Bihar Junior Civil Services Recruitment Rules of 1951, and will be applicable for appointment to direct quota vacancies in various services such as the Jharkhand Administrative Service, Jharkhand Police Service among others.

#### Why was the Jharkhand Combined Civil Services Examination Rules, 2021 needed?

- The Jharkhand Public Service Commission (JPSC), which conducts Combined Civil Service Examination, has conducted only six exams in 20 years.
- In 2010, an FIR was lodged against a former member for alleged irregularities in written exams and interviews.
- At least 204 petitions—related to confusion, corruption in the selection process and irregularities among others—were filed in the High Court with more than 30 per cent cases pending in the courts.
- In the last examination, the result of the Prelims examinations was declared thrice.
- In the first instance, around 5,000 candidates qualified for the Mains, but the result was cancelled because the reservation rule for OBC candidates was not taken into account.
- In the second revised result, 6,103 candidates qualified, but SC/ST students were ignored leading to cancellation of the results.
- The new rules aim to avoid any such confusion.

#### What do the new rules state?

- A calendar of vacancies will be published at the start of each year which wasn't done until the last exam.
- The cadre-controlling department shall calculate the number of vacancies each year on January 1 with respect to the service to be filled in that particular year by direct recruitment and shall provide requisition for appointment to the Commission after roster clearance through the Department of Personnel, Administrative Reforms and Rajbhasha.
- Marks obtained in Main (Written Test) Language Paper which is only qualifying in nature will not be added to the aggregate marks for calculation of percentage of marks, or for preparation of merit list for Main (Interview Test), or for preparation of final merit list.
- This is a huge relief for candidates as earlier it was up to the whims and fancies of officers to decide whether to add those marks or not in preparation of merit list.
- The government has made it clear that those marks will be considered as qualifying.

- While making service allocation, the reserved category candidates—who have not availed any relaxation—recommended against unreserved vacancies may be adjusted against unreserved vacancies by the Commission, and if he cannot, then he shall be adjusted in reserved category if they get a service of higher choice in the order of their preference.
- The rules state that the candidates who obtain minimum qualifying marks of 40 in 'aggregate' shall only be considered by the Commission while preparing the selection list for Main Examination and for preparing the merit list for the purpose of Main (Interview) Test.
- However, the minimum qualifying marks will be relaxed for Scheduled Castes/ Scheduled Tribes and Females to 32%; Extremely Backward Classes to 34%; Backward Classes to 36.5%; and Primitive Tribal Group to 30%.
- Confusion arose in the 6th JPSC exam where it was not clear whether the minimum qualifying marks were calculated subject wise or in aggregate.
- For each vacancy, 15 candidates will be selected for Main (Examination).
- In 2016, for 326 posts, a total of 34,634 applicants were eligible for the Mains exam.
- The candidates to job ratio was more than 100.

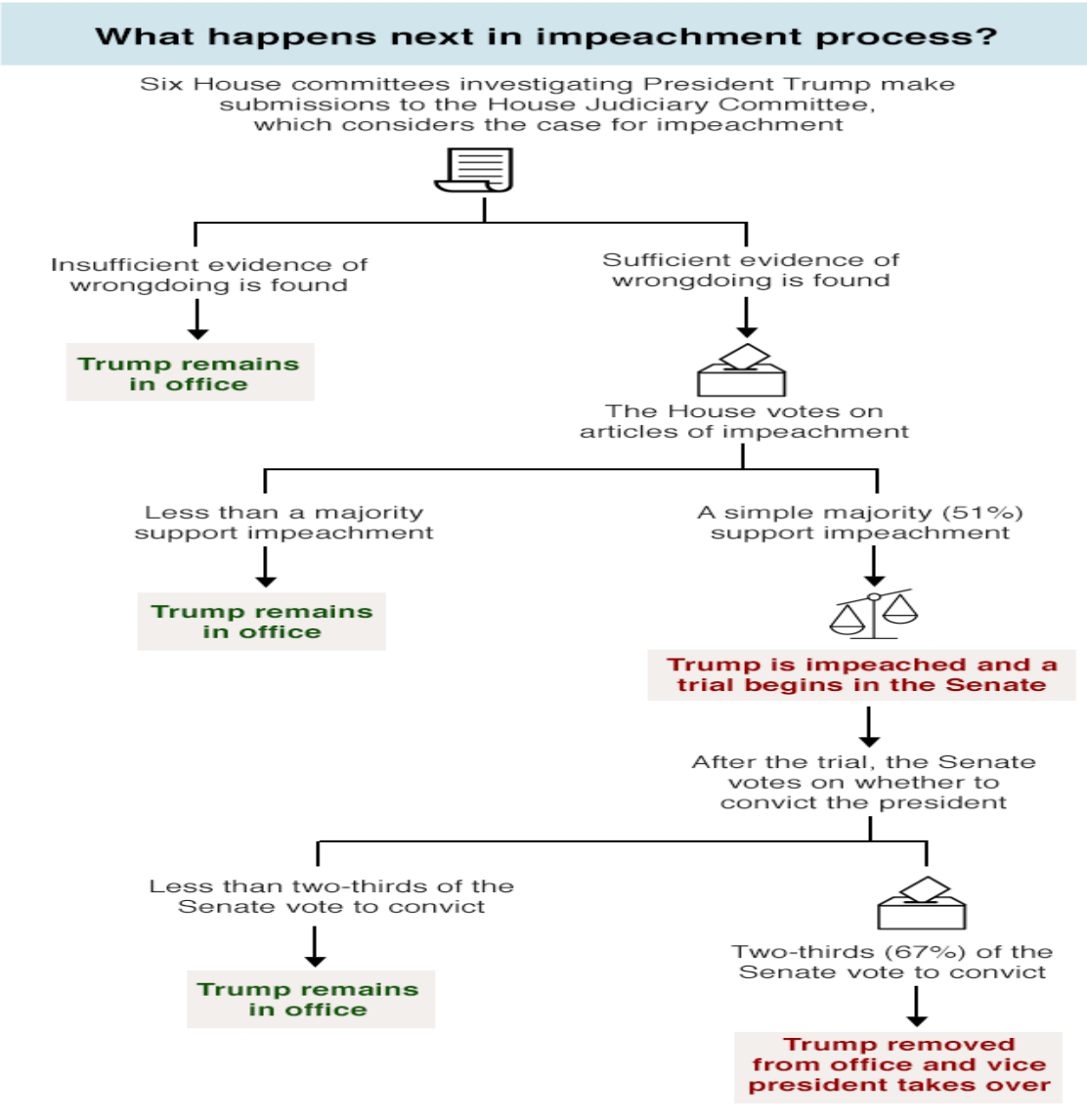
### Rules that experts say may create controversy

- The new rules say that the number of candidates to be admitted to the Main (Written) Examination will be approximately 15 times the total number of advertised vacancies.
- Further, irrespective of category, the '15-times' number will be selected in the Prelims and in case of inadequate representation from reserved category then the commission may at their discretion keep the cut-off marks up to eight percent less than that it was for the 'last selected candidate', but it shall not be less than the minimum marks. So, technically there is no reservation in Prelims
- For example: If there are 100 vacancies, the first 1,500 candidates will be selected for the Mains irrespective of which category they belong to.
- Later, if there are no adequate representation from reserved category/categories, then the Commission may reduce the cut-off marks—for those categories who did get enough representation—not more than 8% from the marks obtained by 1500th candidate—and that too it should be less than the minimum qualifying marks mentioned in the rules.
- This particular rule will affect many prospective students.
- Ideally the Commission should select 15 times the advertised vacancy in respective categories, rather than selecting 1500 candidates purely on merit.
- For example: if, there are 100 total vacancies, and 27 seats are reserved for OBCs, then 405(15 times 27) candidates from OBC community should be selected for Mains and likewise for other categories rather than selecting 1500 candidates for mains.
- There may be a possibility that some seats may remain vacant.
- There is no provision in the news rules for the graduation final year/appearing applicants.
- The UPSC, however, has a provision.

- The request for withdrawal of candidature received from a candidate after he has submitted his application will be not entertained by the Commission.
- The number of attempts of candidates may also get affected.
- Also, candidates would demand return of money paid for the application forms.

### 3.19. First U.S. President To Be Impeached Twice

- Context: President Trump was impeached by the U.S. House for a historic second time on January 13, charged with “incitement of insurrection” over the deadly mob siege of the Capitol in a swift and stunning collapse of his final days in office.
- Mr. Trump is the only U.S. President to be twice impeached.
- Impeachment is a provision that allows Congress to remove the President of the United States.
- The House of Representatives (Lower House) has the “the sole power of impeachment” while the Senate (Upper House) has “the sole power to try all impeachments”.
- The Chief Justice of the US Supreme Court has the duty of presiding over impeachment trials in the Senate.





- Grounds for impeachment:
  - ✓ The President can be removed from office for “treason, bribery, or other high crimes and misdemeanors”.
  - ✓ It means an abuse of power by a high-level public official.
  - ✓ This does not necessarily have to be a violation of an ordinary criminal statute.
  - ✓ Historically, in the US, it has encompassed corruption and other abuses, including trying to obstruct judicial proceedings.

### 3.20.8 Point Agenda To UN Security Council By India

- Context: Speaking at the United Nations Security Council open debate on the topic of Threats to International Peace and security caused by terrorist acts, India said the economic uncertainty caused due to the pandemic has made the radical extremist ideologies more susceptible towards terrorist activities.
- India has proposed an eight-point Action Plan to counter global terrorism and called upon world community to “walk the talk” and commit to the goal of “zero tolerance” with 'no ifs and buts' against the scourge.
- The eight points of the Action Plan are:
  - ✓ Summoning the political will to “unhesitatingly” combat terrorism. Member States should fulfill their obligations enshrined in international counter terrorism instruments and conventions.
  - ✓ Decrying “double standards” in the fight against terrorism. Terrorists are terrorists and there is no good or bad distinction. Those who propagate this only have an agenda. And those who cover up for them are just as culpable.
  - ✓ Reform of the working methods of the Committees dealing with Sanctions and Counter Terrorism. Transparency, accountability and effectiveness are the need of the day. The practice of placing blocks and holds on listing requests without any rhyme or reason must end. This only erodes our collective credibility.
  - ✓ Firmly discouraging exclusivist thinking that divides the world and harms social fabric. Such approaches facilitate radicalization and recruitment by breeding fear, mistrust and hatred among different communities. The Council should be on guard against new terminologies and false priorities that can dilute focus.
  - ✓ Enlisting and delisting individuals and entities under the UN sanctions regimes objectively not for political or religious considerations. Proposals in this regard merit due examination before circulation.
  - ✓ Fully recognizing and addressing the link between terrorism and transnational organized crime
  - ✓ Combating terrorist financing will only be as effective as the weakest jurisdiction. Financial Action Task Force (FATF) should continue to identify and remedy weaknesses in anti-money laundering and counter-terror can make a big difference.

- ✓ Immediate attention to adequate funding to UN Counter Terrorism bodies from UN regular budget. The forthcoming 7th review of the UN's Global Counter Terrorism Strategy offers an important occasion to strengthen measures to prevent and combat terrorism and build capacities of member states.

## 3.21. Russia withdraws from Open Skies Treaty

- Context: Russia announced it is pulling out of the Open Skies treaty saying that the pact, had been seriously compromised by the withdrawal of the United States.
- The United States left the Open Skies arms control and verification treaty in November, accusing Russia of violating it, something Moscow denied.
- Russia has raised concerns that despite leaving the treaty Washington could potentially retain access to overflight intelligence gathered by allies who remain members in the treaty.
- Signed March 24, 1992, the Open Skies Treaty permits each state-party to conduct short-notice, unarmed, reconnaissance flights over the others' entire territories to collect data on military forces and activities.
- Observation aircraft used to fly the missions must be equipped with sensors that enable the observing party to identify significant military equipment, such as artillery, fighter aircraft, and armored combat vehicles.
- Though satellites can provide the same, and even more detailed, information, not all of the treaty states-parties have such capabilities.
- The treaty is also aimed at building confidence and familiarity among states-parties through their participation in the overflights.
- President Dwight Eisenhower first proposed that the United States and the Soviet Union allow aerial reconnaissance flights over each other's territory in July 1955.
- Claiming the initiative would be used for extensive spying, Moscow rejected Eisenhower's proposal.
- President George H.W. Bush revived the idea in May 1989 and negotiations between NATO and the Warsaw Pact started in February 1990.
- Treaty Status: The Open Skies Treaty entered into force on January 1, 2002, and 34 states are party to the treaty, though United States withdrew from the treaty in November 2020.
- Twenty-six of the treaty's initial 27 signatories have ratified the accord and are now states-parties.
- Since the treaty entered into force, Bosnia and Herzegovina, Croatia, Estonia, Finland, Latvia, Lithuania, Slovenia, and Sweden have become states-parties.
- Territory: All of a state-party's territory can be overflowed. No territory can be declared off-limits by the host nation.
- Flight Quotas: Every state-party is obligated to accept a certain number of overflights each year, referred to as its passive quota, which is loosely determined by its geographic size. A state-party's active quota is the number of flights it may conduct over other states-parties. Each state-party has a right to conduct an equal number of flights over any other state-party that overflies it. A state-party's

active quota cannot exceed its passive quota, and a single state-party cannot request more than half of another state-party's passive quota.

- The treaty allows for multiple states-parties to take part in an overflight. The flight will count as an active flight for each state-party participating. Regardless of the number of observing states-parties, however, the overflight will only count as one passive overflight for the observed state-party.
- Russia conducted the first observation flight under the treaty in August 2002, while the United States carried out its first official flight in December 2002.
- In 2008, states-parties celebrated the 500th overflight. Between 2002 and 2019, more than 1,500 flights have taken place.
- Process: An observing state-party must provide at least 72 hours' advance notice before arriving in the host country to conduct an overflight. The host country has 24 hours to acknowledge the request and to inform the observing party if it may use its own observation plane or if it must use a plane supplied by the host. At least 24 hours before the start of the flight, the observing party will supply its flight plan, which the host has four hours to review.
- The host may only request changes in flight plans for flight safety or logistical reasons. If it does so, the two states-parties have a total of eight hours after submission of the original flight plan to agree on changes, if they fail, the flight can be cancelled. The observation mission must be completed within 96 hours of the observing party's arrival unless otherwise agreed.
- Although state-parties are allowed to overfly all of a member's territory, the treaty determines specific points of entry and exit and refueling airfields.
- The treaty also establishes ground resolution thresholds for the onboard still and video cameras. The aircraft and its sensors must undergo a certification procedure before being allowed to be used for Open Skies in order to confirm that they do not exceed the allowed resolutions.
- Aircraft: The treaty lays out standards for aircraft used for observation flights. Aircraft may be equipped with four types of sensors: optical panoramic and framing cameras, video cameras with real-time display, infra-red line-scanning devices, and sideways-looking synthetic aperture radar. For the first three full years after the treaty entered into force, the observation aircraft had to be equipped with at least a single panoramic camera or a pair of optical framing cameras. The states-parties may now agree on outfitting the observation planes with additional sensors.
- Data: A copy of all data collected will be supplied to the host country. All states-parties will receive a mission report and have the option of purchasing the data collected by the observing state-party.
- Treaty Implementation: The Open Skies Consultative Commission (OSCC), comprised of representatives of all states-parties, is responsible for the implementation of the Open Skies Treaty. The OSCC considers matters of treaty compliance, decides on treaty membership, distributes active quotas, and deals with any questions that may arise during the implementation of the treaty.
- Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine, the United Kingdom, and the United States (though US withdrew from the treaty in November 2020). Kyrgyzstan has signed, but not ratified the treaty.

- For example, Russia, which shares its quota with Belarus, and the United States both have quotas permitting 42 flights per year, while Portugal is only obligated to allow two flights annually.
- Countries are not required to exhaust their flight quotas. In 2009, the United States flew a total of thirteen flights, twelve over Russia and one over Ukraine.
- This limit can be extended by 24 hours if the host insists that the observing party use the host's aircraft and demonstration flight is conducted.

### 3.22. Supreme Court directive on quota in promotions

- Context: The Supreme Court asked Attorney General to compile the various issues being raised by States with regard to the application of a Constitution Bench judgment of 2006 in M. Nagaraj case, which had upheld the application of creamy layer principle to members of the Scheduled Caste/Scheduled Tribe communities in promotions.
- The case is based on a plea by the Centre to refer to a seven-judge Bench the question whether creamy layer should apply or not to the Scheduled Caste/Scheduled Tribe community while providing them reservation in government promotions.
- The Centre's plea came despite the Supreme Court verdict in September 2018, in Jarnail Singh case, reiterating the Nagaraj judgment of 2006.
- The 2018 judgment had refused the government's plea to refer the 2006 Nagaraj judgment to a seven-judge Bench.
- It had, while modifying the part of the Nagaraj verdict which required States to show quantifiable data to prove the 'backwardness' of a Scheduled

#### Case history

Salient points from the past verdicts which dealt with the application of creamy layer concept in reservation

■ **Nine-judge Bench in 1992 Indra Sawhney case:** SCs/STs are the most backward among backward classes. Once part of the Presidential List under Articles 341 & 342, there is no question of showing their backwardness again

■ **Five-judge Bench in 2006 M. Nagaraj case:** Quota benefits should go to the weakest of weak and not be snatched away by members of the class who are in the "top creamy layer"

■ **Five-judge Bench in 2018 Jarnail Singh case:** Creamy layer ensures that only the deserving among the SCs/STs get the benefits of reservation

#### Quota Call

**2006**  
SC says creamy layer must be excluded from SC, ST reservations  
This would ensure benefits reach the poorest of them

**2018**  
Rejects AG's plea to refer issue to 7-judge bench  
Reiterates that creamy layer concept is an inherent part of the principle of equality; will apply to SCs, STs too

**2019**  
AG again wants case to be referred to larger bench  
Says is sensitive

Caste/Scheduled Tribe community to provide quota in promotion in public employment, rejected the Centre's argument that Nagaraj misread the creamy layer concept by applying it to SC/ST.

- SC said the issues raised by States are not common.
- Promotions which have been made or proposed to be made in several States are in question in these matters.
- Hence SC directed Advocates-on-Record appearing for each State should furnish a note clearly stating the issues involved in that particular State to the Attorney General for India

### 3.23. Increasing women's marriage age

- Context: A task force constituted by the government to examine its proposal of increasing the age of marriage for women has submitted its report, recommending an increase in the age from 18 to 21.
- The report recommends an increase in the age from 18 to 21, but in a phased manner.
- That means states should be given enough space and time to do the groundwork for such a legislation, since it cannot be done overnight.

POSITIVE TREND				
'Growing integration of the economy and higher school enrolments contributing to increase in median age for marriage'				
Median age for marriage			What caused it?	
	2001	2011	⚙️ Increase in mobile and migratory nature of work in the country is one part of the explanation. The workers are free of restrictions of a traditional social set-up	⚙️ The rise was seen among marginal workers and non-workers as well. So, not only migration, higher levels of school enrolment could also be a contributing factor
<b>Men</b>	22.6	23.5		
<b>Women</b>	18.2	19.2		



- On Independence Day, PM had said the government could re-look at the age of marriage for women, in its bid to fight malnutrition.
- The task force, constituted in June 2020, consisted of secretaries of the health and family welfare, women & child development (WCD), higher education, school education & literacy ministries, and the Legislative Department of the Ministry of Law and Justice.
- Other members included Vice-Chancellor of Jamia Millia Islamia; former vice-chancellor of SNDT Women's University, Mumbai; and Gujarat-based gynecologist.
- The task force has said the age of a woman at the time of her first childbirth should be 21 years.
- The report says evidence shows that delay in marriage has positive economic, social and health effects for families, women, children and the society at large.
- Studies – based on evidence from 50-plus low and middle income countries to find the association of maternal age with infant mortality, child anthropometric failure, diarrhoea and anaemia for first births – show that the risk declines after age 21.

- While the risk of poor child health outcomes is the lowest for women who have their first births between 27 and 29, the broad range for an optimal age of motherhood is 21 to 35 years.
- The foremost mandate of the task force was to examine the correlation of age of marriage and motherhood with health, medical well-being and nutritional status of mother and the child during pregnancy, birth and thereafter.

## 56% OF WOMEN MARRY BETWEEN 18 & 21

Age Group	Rural	Urban	Total
All ages	25.5	12.1	37.6
18-19 years	10.6	3.1	7.5
20-21	4.9	2.6	21.2
<b>18-21</b>	<b>15.5 (61%)</b>	<b>5.7(47%)</b>	<b>21.2 (56%)</b>

Figures in million (in brackets are % of totals)  
Source: Figures for 5 years preceding Census, 2011

### MINIMUM AGE FOR MARRIAGE IN DIFFERENT COUNTRIES

None	Less than 14 years	18 years	21 years
Saudi Arabia, Yemen, Djibouti	Sudan (puberty), Lebanon (9), Iran (13)	143 countries, including India	20 countries, including Indonesia, Malaysia, Nigeria

- The task force has not recommended that the age of consent should be increased.
- The focus should be on sex counselling and sex education, instead of adopting a judgmental view of sex.
- On voiding marriages of under-18 women by default, marriages under the age of 21 shouldn't be made void immediately.
- The task force has recommended that the Karnataka model should be studied closely before making child marriages void.
- In 2017, the Karnataka government passed the Prohibition of Child Marriage (Karnataka Amendment) Act, 2016, declaring all marriages between minors void "ab initio" (starting from the beginning).
- In 2019 WCD ministry was exploring a proposal to standardise the minimum age for marriage at 18 years for both men and women under the Prohibition of Child Marriage Act (PCMA), 2006.
- The Law Commission, in 2008, had recommended a uniform age of marriage for boys and girls at 18 years, and not 21.

- In 2018, the National Human Rights Commission had also recommended that there should be a uniform age of marriage for boys and girls.
- The logic behind bringing down the age of marriage for men from 21 to 18 has been that legally, the age of adulthood is 18, and an individual is even allowed to vote at that age.
- Reducing the age of marriage from 21 to 18 for men, it has been believed, serves the purpose of standardising the age of marriage for men and women.
- A sub-committee set up by the government before this task force had said the majority view was to not increase the age of marriage, and for there to be no amendments made to the PCM Act without examining their sociological impact on the girl child, even though there was no legal impediment to increasing the age.
- The sub-committee, headed by the secretary of the legislative department, had said a study of the social and cultural impact of such a move must be conducted.
- However, while the government-appointed task force has looked into these questions, it has recommended an increase instead of a reduction, given the significant health benefits of reproduction after the age of 21.

### 3.24.US to resume WHO funding

- Context: The United States says it will resume its funding of the UN's health agency as it shifts towards greater international cooperation in the fight against COVID-19, while also launching a \$1.9 trillion plan to tackle the pandemic.

#### How the WHO is funded and where the money is spent?

- The decision by United States President Donald Trump to halt US funding to the World Health Organisation in the middle of the coronavirus pandemic sparked a major controversy.
- The US is one of the largest donors to the WHO, contributing nearly \$90 million, or about 16% of the organisation's total budget in 2018-'19.

#### Where funds come from?

- The World Health Organisation shares a common funding model with other United Nations agencies.
- This includes mandatory or "assessed contributions" from the member countries, which are determined by each country's income level and population.
- This is supplemented by "voluntary contributions" from both member states and non-governmental organisations.
- In recent years, multilateral development agencies such as The Global Fund, Global Alliance for Vaccines and Immunisation, and philanthropists such as the Bill and Melinda Gates Foundation have emerged as key voluntary contributors.
- The WHO is free to spend the income from assessed contributions on whatever programmes or activities it wants to.
- But the voluntary contributions combine both flexible funds untied to any specific purposes and money which can only be spent on specific programmes or activities decided by the donor.

## WHO budget: earmarked versus specified funding

US\$ billions

■ Voluntary Contributions Specified ■ Flexible funds



Source: World Health Organization

### The decision makers

- Every year, the decision-making body of the WHO – the World Health Assembly, comprised of delegations from all 194 member states – is convened in Geneva.
- The Assembly reviews and approves the WHO’s programme budget, which specifies which programmes and regions the money would be spent on.
- This draws on a document referred to as the General Programme of Work, which details the strategic priorities and goals of WHO, which are usually linked with other global development commitments such as the Sustainable Development Goals.
- The financial estimates for the General Programme of Work – the current one is for 2019-'23 – sets out the resources required for the different activities and areas of the WHO’s global work.
- These are mapped to specific targets that can be easily monitored.
- The Programme and financial estimates are first approved by the WHO’s executive board, and then by the member countries at the World Health Assembly.
- Different NGOs who make voluntary contributions also get to review and approve activities supported out of their contributions.
- WHO budgets are divided between its six regional offices and the headquarters in Geneva. The funds are allocated into base programmes which have six categories:
  - ✓ Communicable diseases
  - ✓ Non-communicable diseases
  - ✓ Promoting health through the life course (essentially a combination of maternal, child and elderly health programmes)



- ✓ Health systems
- ✓ Health emergencies programmes
- ✓ Corporate services, which includes expenditure on improving governance, leadership and programme management
- There are also distinct budget lines on special programmes, for example on tropical disease research, and a new scientific research division introduced in 2019. And there is a dedicated budget line on polio eradication.
- ✓ An important aspect of WHO's work also involves producing guidelines for implementing different health programmes and responding to major health challenges – and sharing of knowledge between countries.
- ✓ Among the regional offices, Africa receives the highest share of the WHO's budgets for the base programmes, followed by the Eastern Mediterranean and South-East Asia.

### 3.25.U.S. to review Houthi terrorist label

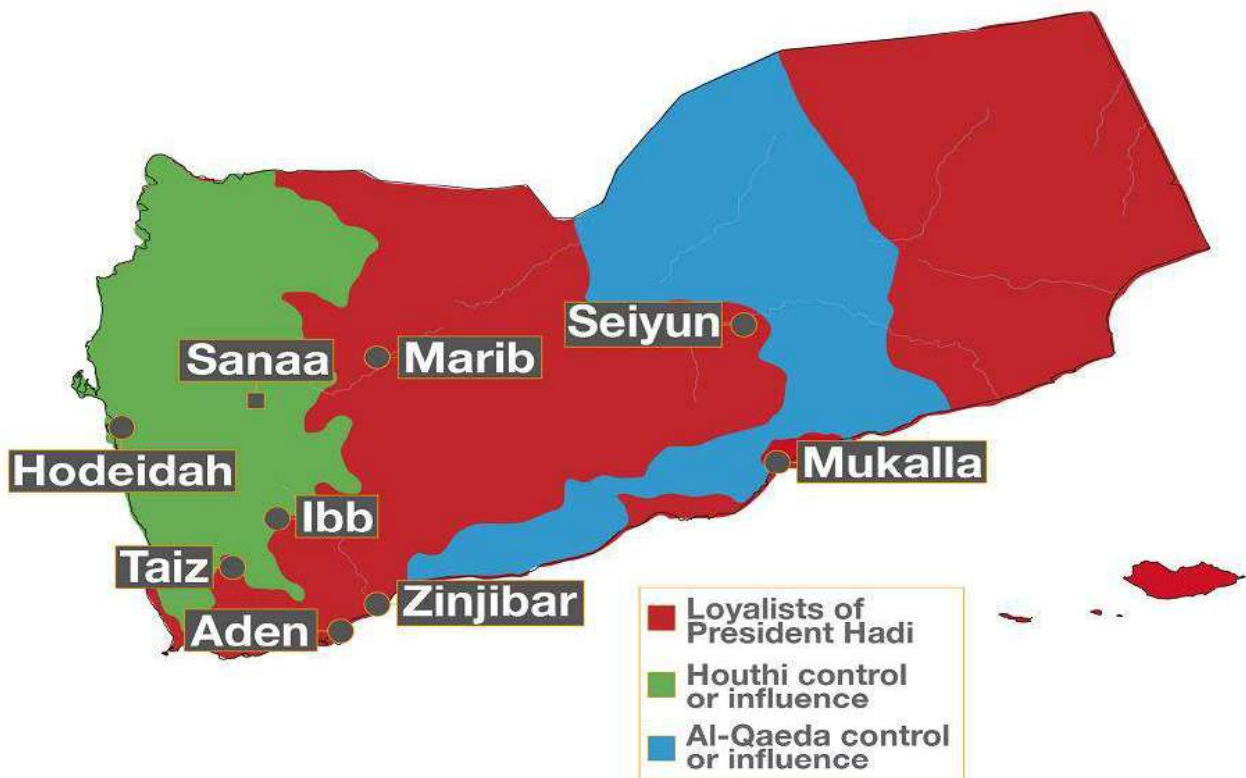
- Context: U.S. administration will quickly revisit the designation of Yemen's Houthi rebels as terrorists and end support to the devastating Saudi offensive on the country.
- Trump administration had put them in the terrorist group.
- The United Nations and aid groups have warned the terrorist designation risks worsening the plight of a country where millions depend on aid to survive.
- The designation took effect recently, with the Houthis warning that they would respond to any action against them.
- The conflict has its roots in the failure of a political transition supposed to bring stability to Yemen following an Arab Spring uprising that forced its longtime authoritarian president, Ali Abdullah Saleh, to hand over power to his deputy, Abdrabbuh Mansour Hadi, in 2011.

#### Background

- The Houthi movement (known formally as Ansar Allah), which champions Yemen's Zaidi Shia Muslim minority and fought a series of rebellions against Saleh during the previous decade, took advantage of the new president's weakness by taking control of their northern heartland of Saada province and neighbouring areas.
- Disillusioned with the transition, many ordinary Yemenis - including Sunnis - supported the Houthis, and in late 2014 and early 2015 the rebels gradually took over the capital Sana.
- A Saudi-led multinational coalition intervened in the conflict in Yemen in March 2015
- The Houthis and security forces loyal to Saleh - who was thought to have backed his erstwhile enemies in a bid to regain power - then attempted to take control of the entire country, forcing Mr Hadi to flee abroad in March 2015.
- Alarmed by the rise of a group they believed to be backed militarily by regional Shia power Iran, Saudi Arabia and eight other mostly Sunni Arab states began an air campaign aimed at defeating the Houthis, ending Iranian influence in Yemen and restoring Mr Hadi's government.

- The coalition received logistical and intelligence support from the US, UK and France.

## Yemen: Who controls what



Source: Liveuamap  
Updated: July 2017



### What's happened since then?

- At the start of the war Saudi officials forecast that it would last only a few weeks.
- But four years of military stalemate have followed.
- Coalition ground troops landed in the southern port city of Aden in August 2015 and helped drive the Houthis and their allies out of much of the south over the next few months.
- Mr Hadi's government has established a temporary home in Aden, but it struggles to provide basic services and security and the president continues to be based in Saudi Arabia.
- The Houthis meanwhile have not been dislodged from Sanaa and north-western Yemen.
- They have been able to maintain a siege of the third city of Taiz and to launch regular ballistic missile and drone attacks on Saudi Arabia.  
In September 2019, Saudi Arabia's eastern oil fields of Abqaiq and Khurais were attacked by air, disrupting nearly half the kingdom's oil production - representing around 5% of global oil output.
- The Houthis claimed responsibility but Saudi Arabia and the US accused Iran of carrying out the attacks.
- Militants from al-Qaeda in the Arabian Peninsula (AQAP) and the local affiliate of the rival Islamic State group (IS) have taken advantage of the chaos by seizing territory in the south and carrying out deadly attacks, notably in Aden.

- The launch of a ballistic missile towards Riyadh in November 2017 prompted the Saudi-led coalition to tighten its blockade of Yemen.
- It said it wanted to halt the smuggling of weapons to the rebels by Iran - an accusation Tehran denied - but the restrictions led to substantial increases in the prices of food and fuel, helping to push more people into food insecurity.
- The alliance between the Houthis and Ali Abdullah Saleh also collapsed in November 2017 following deadly clashes over control of Sanaa's biggest mosque.
- Houthi fighters launched an operation to take full control of the capital and Saleh was killed.
- In June 2018, the coalition attempted to break the deadlock on the battlefield by launching a major offensive to capture from the Houthis the Red Sea city of Hudaydah, whose port is the principal lifeline for almost two thirds of Yemen's population.
- The UN warned that the port's destruction would constitute a "tipping point" beyond which it was going to be impossible to avert massive loss of life due to famine.
- After six months of fighting, the warring parties agreed a ceasefire at talks in Sweden.
- The Stockholm agreement required them to redeploy their forces from Hudaydah, establish a prisoner exchange mechanism, and to address the situation in Taiz.
- While hundreds of prisoners have since been released, the full redeployment of forces from Hudaydah has not yet taken place, raising fears that the Stockholm agreement will collapse and that the battle for Hudaydah will resume.
- In July 2019, the United Arab Emirates (UAE), a key ally of Saudi Arabia in the war, facing international criticism of its conduct, announced a withdrawal of its forces from Yemen.
- In August, fighting erupted in the south between Saudi-backed government forces and an ostensibly allied southern separatist movement supported by the UAE, the Southern Transitional Council (STC).
- Forces loyal to the STC, which accused Mr Hadi of mismanagement and links to Islamists, seized control of Aden and refused to allow the cabinet to return until Saudi Arabia brokered a power-sharing deal that November.
- The UN hoped the agreement would clear the way for a political settlement to end the civil war, but in January 2020 there was a sudden escalation in hostilities between the Houthis and coalition-led forces, with fighting on several front lines, missile strikes and air raids.
- In April 2020 the STC declared self-rule in Aden, breaking a peace deal signed with the internationally recognised government, saying it would govern the port city and southern provinces.
- Saudi Arabia announced a unilateral ceasefire the same month due to coronavirus pandemic but the Houthis rejected it, demanding the lifting of air and sea blockades in Sanaa and Hudaydah.

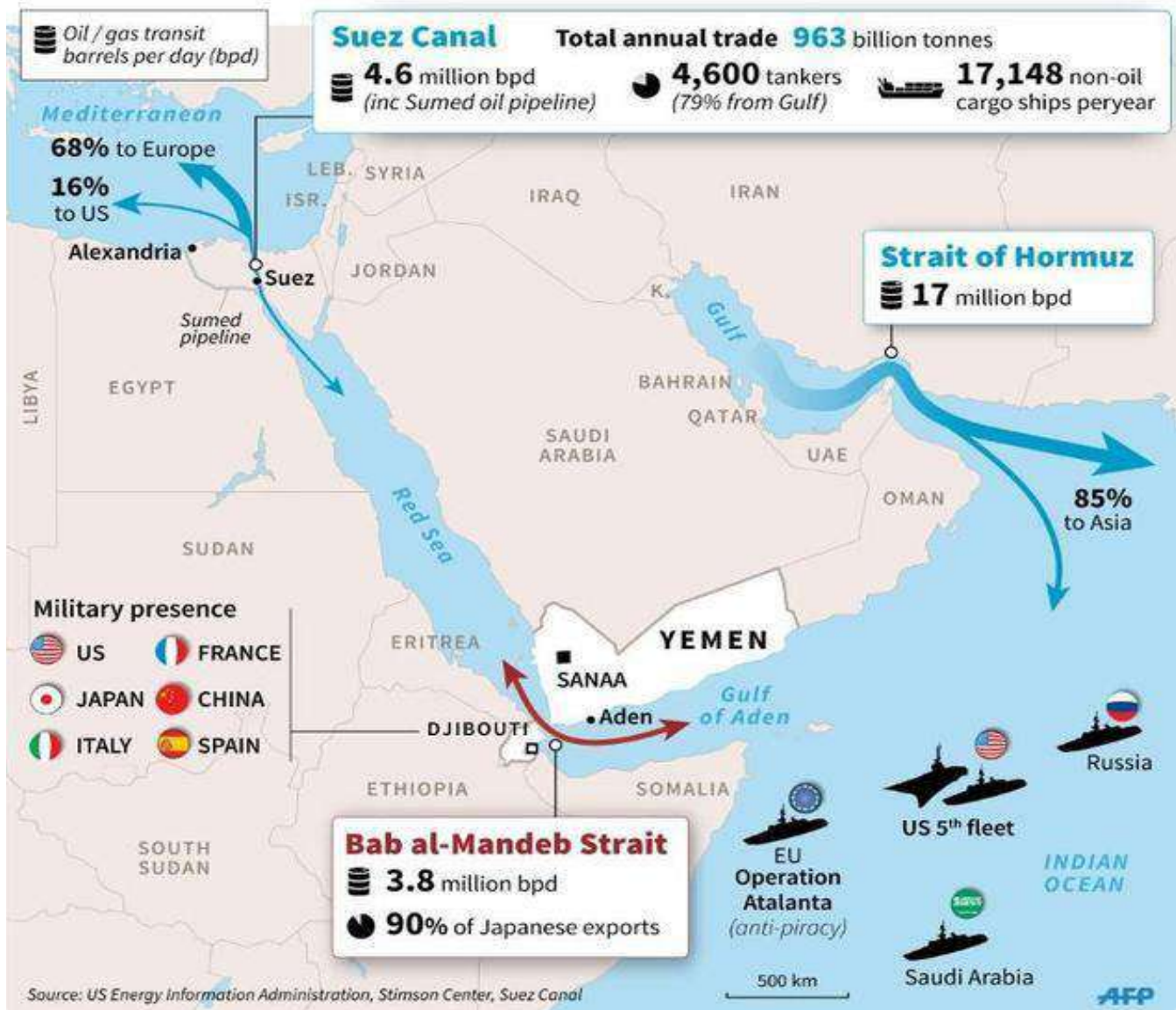
### **The human cost**

- In short, Yemen is experiencing the world's worst humanitarian crisis.
- The UN says Yemen is on the brink of the world's worst famine in 100 years if the war continues
- The UN had verified the deaths of at least 7,700 civilians by March 2020, with most caused by Saudi-led coalition air strikes.

- About 80% of the population - 24 million people - need humanitarian assistance and protection.
- The United Nations has warned that the death toll from the coronavirus pandemic could "exceed the combined toll of war, disease, and hunger over the last five years."
- The UN also issued a desperate plea for financial aid saying its operations in the country, including vital health services, were severely underfunded.
- The war has displaced more than 3.65 million from their homes.

Why should this matter for the rest of the world?

## Yemen's strategic importance



- What happens in Yemen can greatly exacerbate regional tensions.
- It also worries the West because of the threat of attacks - such as from al-Qaeda or IS affiliates - emanating from the country as it becomes more unstable.
- The conflict is also seen as part of a regional power struggle between Shia-ruled Iran and Sunni-ruled Saudi Arabia.

- Gulf Arab states - backers of President Hadi - have accused Iran of bolstering the Houthis financially and militarily, though Iran has denied this.
- Yemen is also strategically important because it sits on a strait linking the Red Sea with the Gulf of Aden, through which much of the world's oil shipments pass.

## 4. Economy

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)
- [Video 4](#)

### 4.1. Karnataka appoints Regional Commissioner to compile status of Ponzi cases

- Context: In a bid to protect the depositors' interest in Ponzi schemes run by financial companies, against whom cases have been registered, and monitor cases pending in various courts, the State government appointed Bengaluru Regional Commissioner to compile the status of all cases that have been filed in the State and coordinate with the district administration.
- The finance companies running ponzi schemes could dupe investors completely and if movable and immovable properties belonging to these companies are not attached, there is a possibility that investors' interest cannot be protected since these properties could be sold.
- Reserve Bank of India has identified 118 finance companies in the State and seeking action against them under the Karnataka Protection of Interest of Depositors in Financial Establishment Act, 2004 and Banning of Unregulated Deposit Scheme Act, 2019.
- RBI found that the action pertaining to these 118 finance companies was not at the expected level.



**Banning of Unregulated Deposit Schemes Bill**  
Illicit borrowing to be curbed and controlled

KEY FEATURES OF EXISTING BILL

-  Bans on promoting, operating, issuing advertisements or accepting deposits in any Unregulated Deposit Scheme
-  Creation of an online central database, for collection and sharing of information on deposit taking activities
-  Proper definition of "Deposit Taker" and "Deposit"
-  Adequate provisions for repayment of deposits

- In Bengaluru alone, more than a dozen Ponzi schemes, including the most recent and biggest financial fraud committed by IMA, have caused losses running into several thousand crores, affecting at least 50,000 depositors.
- The halal investment scheme run by IMA alone has affected over 30,000 investors in the State.
- The Regional Commissioner will hold monthly meetings with Deputy Commissioners and Superintendents of Police to review the developments and submit a report to the State government on pending cases against these financial companies in special courts and high courts.

**THE PONZI PYRAMID**

Ponzi schemes, as their name suggests, require an unsustainable large pool of investors to uphold the scam. In this simplified example, the schemer starts by taking ₹1,000 from investors, promising to double it within 2 months. But instead of investing that money, he pays them with funds generated from other investors' input to as the scheme progresses.

**THE SCHEMER**

**1** In the first month, the schemer takes ₹1,000 each from the first two investors

**FIRST ROUND TWO INVESTORS**

**2** Having pocketed the ₹2,000, the schemer needs to find 4,000 - four investors - in the second month to pay the returns promised.

**SECOND ROUND FOUR INVESTORS**

**3** In the third month, he owes ₹8,000, and so has to find eight new investors. He'll have to get more than ₹1,000 from each if he wants to keep skimming money for himself.

**THIRD ROUND EIGHT INVESTORS**

**4** In the next month, he'll need 16 investors and so on.

**4** By the 10th round, the Ponzi schemer will need to find a group of 1,024 investors. By the 15th round, he would have to come up with over a quarter of a million investors.

**DECODING THE PONZI MUDDLE**

A Ponzi scheme is a fraudulent investment operation that promises high rates of return to investors. The scheme generates returns for older investors from their own deposits or money paid by later investors. It is named after Charles Ponzi, who became notorious for using the technique to defraud investors by offering returns from investments that were never made. The scheme is designed to collapse because the percentage of new investors needed to keep the payments to investors.

**HOW TO SPOT ONE?**

The Ponzi scheme, named after Charles Ponzi, who became notorious for using the technique to defraud investors by offering returns from investments that were never made. The scheme is designed to collapse because the percentage of new investors needed to keep the payments to investors.

**THE ULTIMATE UNRAVELLING OF A PONZI SCHEME**

- As more investors have not invested, the likelihood of the scheme coming to the attention of authorities increases.
- The percentage will grow, taking all the remaining invested money.
- Put in money with a scheme, money is swept up at a moment's notice and the investor starts having problems paying out the promised returns.
- External market factors, such as a sharp decline in the economy will cause many investors to suddenly panic or all of their investments to be lost or contribute to the environment, but ultimately to understanding market fundamentals.

## 4.2. Industry bodies to ask govt to hold back implementation of new wage law

- Context: Representatives of industry bodies, including from CII and FICCI, held a meeting with the labour ministry to make a case for holding back the implementation of the new definition of wages, which would increase social security deductions and reduce the take-home pay of workers.
- The new definition of wages is part of the Code on Wages, 2019 passed by Parliament last year.
- The rules to enforce the law were also firmed up last year.
- Now, its implementation is planned from April 1, 2021 along with other three codes on industrial relations, social security and occupational health safety and working conditions.

- The new definition provides that the allowance of an employee cannot be more than 50 per cent of the total salary.
- This would increase the social security deductions like the provident fund.
- Presently, the employer and employee contribute 12 percent each towards the social security schemes run by the Employees' Provident Fund Organisation.
- At present, a large number of employers split salaries into numerous allowances to reduce social security contributions.
- This helps employees as well as employers.
- The workers' take-home pay increases while the employers reduce provident fund contribution liability.
- Restricting allowance to 50 per cent of the total pay would also increase employers payout on gratuity payments to those employees who work for more than five years in a firm.
- The gratuity is also worked out as proportion of the average pay.
- This would enhance the social security benefits for workers but are not ready for it due to economic slowdown.
- The industry bodies want that the implementation should be put on hold till the economy rebounds again and buoyancy returns.

# CODE ON WAGES BILL, 2019

## COVERAGE:

The Code will apply to all employees. The central government will make wage-related decisions for employments such as railways, mines, and oil fields, among others. State governments will make decisions for all other employments.



## FLOOR WAGE:



The central government will fix a floor wage, taking into account living standards of workers and the geographical areas. The minimum wages decided by the central or state governments must be higher than the floor wage. In case the existing minimum wages fixed by the central or state governments are higher than the floor wage, they cannot reduce the minimum wages.

## FIXING MINIMUM WAGE:

Minimum wages will be notified by the central or state governments based on time, or number of pieces produced and will be reviewed and revised at an interval of not more than five years. While fixing minimum wages, the central or state governments may take into account factors such as: (i) skill of workers, and (ii) difficulty of work.



## PAYMENT OF WAGES:



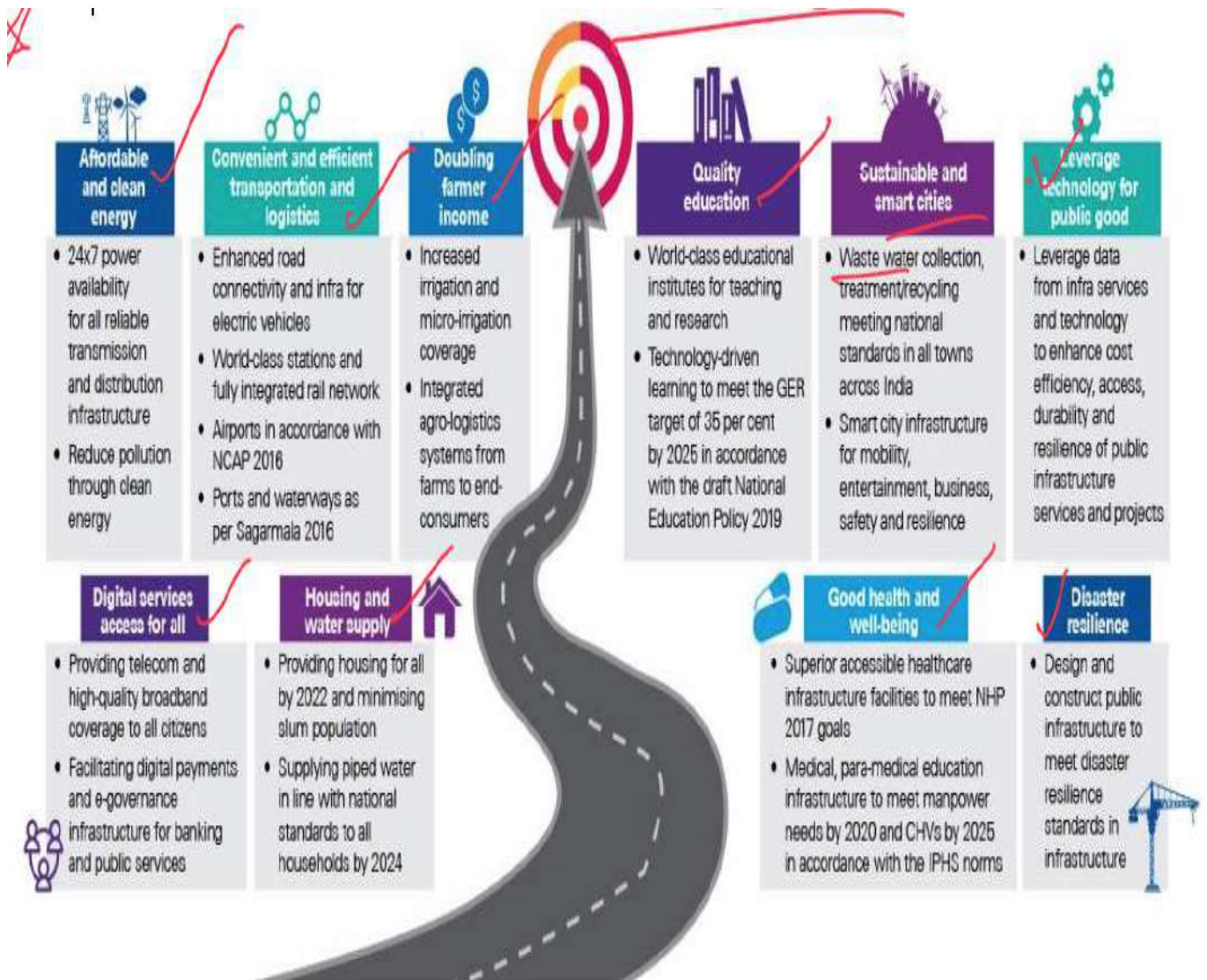
The bill will ensure that employees getting a monthly salary are paid by the 7th of the following month. Those working on a weekly basis will be paid on the last day of the week and daily wagers should get them on the same day. It is envisaged that states will notify payment of wages to workers through digital mode.



- It is also observed that the employers have been splitting salary into numerous allowances to reduce their provident fund liability.
- Meanwhile, the labour ministry has notified the enabling provisions for constitution of Central Advisory Board which is mandated to fix minimum wages and advice the government on ways to increase employment in the country.

### 4.3. Centre to set up development finance entity in 3-4 months

- Context: The government plans to set up a Development Finance Institution (DFI) in the next three to four months with a view to mobilise the ₹111 lakh crore required for funding of the ambitious national infrastructure pipeline.



- A DFI is needed, to provide funding, to enhance credit rating of projects
- The DFI will be catalyst and would fund projects where others are not willing to enter because of the risk involved.
- In Budget 2019, Finance Minister has proposed to set up DFIs for promoting infrastructure funding.
- About 7,000 projects have been identified under the National Infrastructure Pipeline with projected investment of Rs 111 lakh crore during 2020-2025.

- Prior to liberalisation, India had DFIs engaged in development of industry.
- ICIC and IDBI, in their previous avatars, were DFIs.
- The country's oldest financial institution IFCI. Ltd. too had acted as a DFI.

## 4.4. Electricity (Rights of Consumers) Rules, 2020

- Context: The government has notified the Electricity (Rights of Consumers) Rules, 2020.
- These rules serve to “empower” consumers with rights that would allow them to access continuous supply of quality, reliable electricity.
- This is because the provisions make distribution companies more accountable to consumers.
- The rules cover 11 key areas of power supply to consumers in the country, including obligations of distribution licensees, metering arrangements, release of new connections and modifications of existing connections and grievance redressal and compensation mechanisms. However, there are certain exceptions to these rules, especially where use for agricultural purposes is concerned.

### Effect on consumers

- Now, as per law, states will have to implement these rules and discoms will be held more accountable for issues like delays in providing and renewing connections of electricity.
- They are also obligated to provide round-the-clock electricity to consumers, as per the Ministry of Power.
- To ensure compliance, the government will apply penalties that will be credited to the consumer's account.

### The following areas are covered under the rules:

- Rights of consumers and Obligations of Distribution licensees;
- release of new connection and modification in existing connection;
- metering arrangement;
- billing and payment;
- disconnection and reconnection;
- reliability of supply;
- consumer as ‘prosumer’;
- standards of performance of licensee;
- compensation mechanism;
- call centre for consumer services; grievance redressal mechanism.

## 4.5. Cairn Energy wins arbitration award against India in tax dispute



## THE OCCUPATIONAL SAFETY, HEALTH AND WORKING CONDITIONS CODE, 2019

- Introduced in Lok Sabha on July 23.
- Incorporates the essential features of 13 enactments relating to factories, mines, dock workers, building and other construction workers, plantation labour, contract labour, inter-state migrant workmen, working Journalists and other newspaper employees, motor transport workers, sales promotion employees, beedi and cigar workers, cine workers and cinema theatre workers.
- Applies to establishments employing at least 10 workers, and to all mines and docks.
- It does not apply to apprentices.
- Makes special provisions for certain types of establishments and classes of employees, such as factories, mines, and building and construction workers.
- All establishments covered by the Code must be registered with registering officers.
- Duties of employers: providing a workplace free from hazards that may cause injury or diseases; providing free annual health check-up to employees.
- Rights and duties of employees: taking care of their own health and safety; complying with safety and health standards; reporting unsafe situations to the inspector.

### WORKING TIME

#### Past 7pm, Before 6am

Women workers, with their consent, may work past 7pm and before 6am, if approved by Centre/states.

- Work hours for different classes of establishment and employees to be provided as per rules prescribed by Centre/states.

- For overtime work, the worker must be paid twice the rate of daily wages.

### WORK MANAGEMENT

#### 6 days work

No employee may work for more than six days a week.

#### 20 days

Workers must receive paid annual leave for at least one in 20 days of the period spent on duty.

- Employer is required to provide a hygienic work environment with ventilation, comfortable temperature and humidity, sufficient space, clean drinking water and toilets.

#### ₹10,000 fine

If an employee violates provisions of the Code, he will be subject to a fine of up to Rs 10,000.

#### ₹ 5 Lakh

A violation that leads to the death of an employee punishable with imprisonment of up to two years, or a fine up to Rs 5 lakh, or both.

#### 50% fine

Courts may direct that at least 50% of such fine be given as compensation to the victim's heirs.

#### ₹2 to 3 Lakh

For any other violation where penalty is not specified, employer is liable for Rs 2-3 lakh in penalty

## THE CODE ON WAGES, 2019

- Parliament passed it on Aug 2
  - Regulates wage and bonus payments in all employment where any industry, trade, business, or manufacture is carried out.
  - Replaces Payment of Wages Act, 1936; Minimum Wages Act, 1948; Payment of Bonus Act, 1965, the Equal Remuneration Act, 1976.
  - Covers all employees. Centre will decide on matters of employees in railways, mines, oil fields, among others. States will decide on employees in other sectors.
  - Wages include salary, allowance, or any other component expressed in monetary terms.
  - Does not include bonus payable to employees or any travel allowance, among others.
  - Fixes 'floor wage' for different geographical areas. Minimum wages decided by Centre and states must be higher than the floor wage.
  - Prohibits employers from paying wages less than the minimum wages.
  - Prohibits gender discrimination in wages.
  - Centre, states can fix number of hours that constitute a normal working day.
  - Workers entitled to overtime wage, which must be at least twice the normal rate.
- ### WAGE DUE FINE
- #### ₹ 50,000
- Fine to an employer who pays an employee less than what's due to him/her is punishable with fine up to Rs 50K.
- #### ₹ 1,00,000
- 2nd such offence within five yrs of the 1st instance would result in a jail term of up to 3 months or fine up to Rs 1 lakh or both.

SOURCE: PRS LEGISLATIVE RESEARCH



### Curb on Chit Scams Through the Banning of Unregulated Deposit Schemes ~~Bill~~

Changes to put an end to the menace of Chit Fund Scams and other Illegal Fund Schemes

-  Bill has been expanded to prevent deliberate disguising of schemes to escape provisions of the Bill
-  Protects common man against duping by illegal operators
-  Improved monitoring and transparency through an online database containing information on deposit takers



### Comprehensive Changes to the Banning of Unregulated Deposit Schemes ~~Bill~~

- STRICTER** Bill has been expanded to remove ambiguity and prevent duping of common people by illegal operators
- WIDER** Inclusion of names (individuals or companies) to prevent deliberate evasion of provisions of the Bill to dupe the public
- STREAMLINED** Creation of an authority (existing or new) to maintain an online database containing information on deposit takers

- Context: British oil and gas explorer Cairn Energy Plc has won an arbitration tribunal award of \$1.2 billion plus interest and costs against the India.

- Cairn initiated arbitration to fully recover losses from the expropriation of its investments in India in 2014, continued attempts to enforce retrospective tax measures and the failure to treat the Company and its investments fairly and equitably.
- Cairn sought ₹10,570 crore (\$1.4 billion) in damages from the government to recoup the value of the Group's residual shareholding in Cairn India Limited (CIL, since merged with Vedanta Limited), which was lost when the Income Tax Department seized it and subsequently sold it (retaining the proceeds), plus a further tax refund due to Cairn in an unrelated matter which has also been seized by the IT Department.
- The arbitration tribunal panel issued an award in Cairn's favour.

### **Bilateral treaty**

- Cairn's claim was brought under the terms of the UK-India Bilateral Investment Treaty and the proceedings were under the registry of the Permanent Court of Arbitration.
- The tribunal ruled unanimously that India had breached its obligations to Cairn under the UK-India Bilateral Investment Treaty and has awarded Cairn damages of \$1.2 billion plus interest and costs, which now becomes payable
- The arbitration (the agreed method of Treaty dispute resolution) was asked to determine if India breached its obligations under the Treaty to protect Cairn's investments in India by retroactively applying a newly enacted capital gains tax law to an internal corporate reorganisation undertaken in 2006.

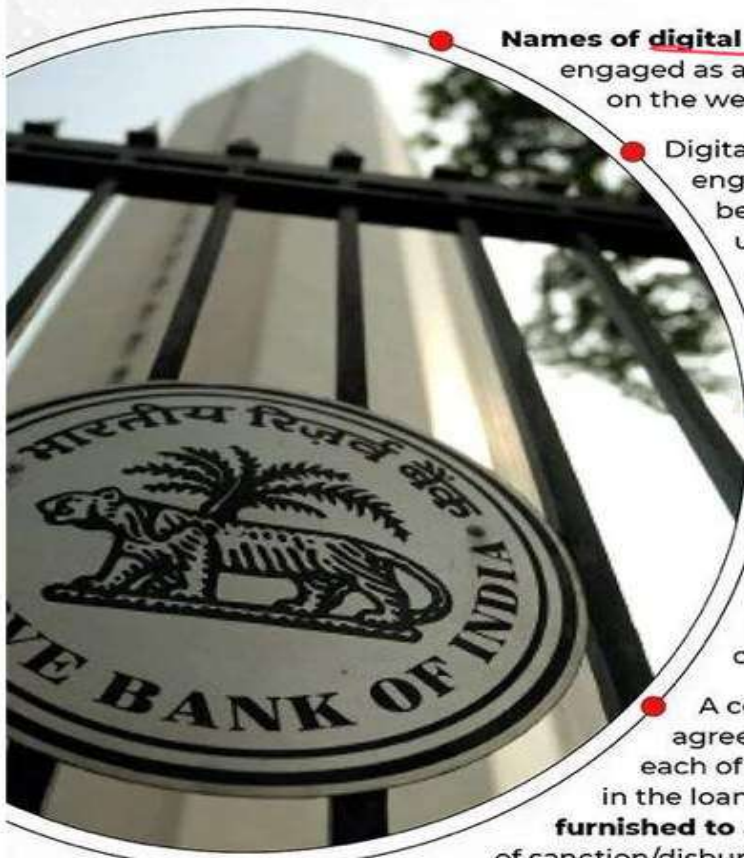
### **Breach of obligations**

- Cairn submitted that the retroactive application of a newly-enacted law is a breach by India of its obligations under the Treaty to treat Cairn and its investments fairly and equitably and to refrain from unlawfully expropriating Cairn's investments.
- The Treaty affords strong provisions to enforce a successful award and the decision of the Tribunal is final and binding on both parties.
- In September, an international arbitration tribunal ruled against India levying retrospective taxes on the Vodafone Group.
- The unexpected outcome of Cairn arbitration does not bode well for the Indian government that claims to increase the efficacy of ease of doing business in India and free trade



## **4.6. Don't fall prey to unauthorised digital platforms, mobile apps for quick loans, warns RBI**

- Context: The Reserve Bank of India has cautioned against unauthorised digital lending platforms or mobile apps, saying there have been reports of people falling prey to such platforms in the name of getting "loans in a quick and hassle-free manner."
- The central bank said such unauthorised digital lending platforms or mobile apps are demanding excessive rates of interests and additional hidden charges from borrowers.
- They are also adopting "unacceptable and high-handed recovery methods", and are even misusing agreements on data access regarding borrowers' mobile phones.

## RBI'S 6 COMMANDMENTS TO BANKS ON DIGITAL LENDING



- **Names of digital lending platforms** engaged as agents shall be disclosed on the website of banks/NBFCs
- Digital lending platforms engaged as agents shall be **directed to disclose** upfront to the customer, the name of the bank/ NBFC on whose behalf they are interacting with him
- Immediately after sanction but before execution of the loan agreement, the **sanction letter shall be issued to the borrower** on the letter head of the bank/NBFC concerned
- A copy of the loan agreement along with a copy each of all enclosures quoted in the loan agreement shall be **furnished to all borrowers** at the time of sanction/disbursement of loans
- Effective **oversight and monitoring shall be ensured** over the digital lending platforms engaged by the banks/NBFCs
- Adequate efforts shall be made towards **creation of awareness about the grievance redressal mechanism**

- RBI said legitimate public lending activities could only be undertaken by the RBI-registered banks, and non-banking financial companies (NBFCs).
- Those are regulated by the state governments, under statutory provisions, such as their money lending acts, can also indulge in lending.
- People must verify the credentials of such companies or persons before falling prey.
- Consumers should never share copies of KYC documents with unidentified persons, unauthorised apps and should report such apps to concerned law enforcement agencies or use sachet portal ([sachet.rbi.org.in](http://sachet.rbi.org.in)) to file an online complaint.
- As per the Reserve Bank guidelines, digital lending platforms used on behalf of banks and NBFCs should disclose their names upfront to the customers.
- One can find names and addresses of NBFCs registered with the RBI at [cms.rbi.org.in](http://cms.rbi.org.in).
- People can also file complaints against the RBI-regulated entities at this portal.

## 4.7. Cabinet approves 100% FDI in DTH services

- Context: The Union Cabinet approved revised guidelines for Direct-to- Home (DTH) broadcasting services, allowing 100 per cent foreign direct investment (FDI) as well as increasing the licence period to 20 years.
- Due to Govt's I&B guidelines, this field was not getting the benefit of 100 per cent FDI.
- Now after changing the guidelines, the guidelines will have the same guidelines as Commerce Ministry, and will come under 100 per cent FDI.
- Under the revised guidelines the licenses will be issued for a period of 20 years, compared to 10 years at the moment, and will be renewed for a 10-year period.
- The license fee has been revised from 10 per cent of gross revenue (GR) to 8 per cent of adjusted gross revenue (AGR), which will be calculated by deduction of GST from GR.
- Further, broadcasting firms will have to pay the license fee on quarterly basis, rather than the annual basis as of now.
- The revised guidelines "may also enable DTH service providers to invest for more coverage leading to increased operations and higher growth and thereby enhanced and regular payment.
- The government has also allowed DTH operators to share infrastructure.
- DTH operators, willing to share DTH platform and transport stream of TV channels, on voluntary basis, will be allowed
- Distributors of TV channels will be permitted to share the common hardware for their Subscriber Management System (SMS) and Conditional Access System (CAS) applications.
- Sharing of infrastructure by the DTH operators, may bring in more efficient use of scarce satellite resources and reduce the costs borne by the consumers.
- In another decision, the Cabinet also approved the merger of four of its film media units – Films Division, Directorate of Film Festivals, National Film Archives of India, and Children's Film Society, India – with the National Film Development Corporation (NFDC) Ltd.

## 4.8. GST: physical verification of premises is now mandatory

- Context: The government has introduced mandatory physical verification of business premises for the purposes of obtaining GST registration.
- This is aimed at controlling the menace of GST fake invoice frauds, was recommended by the Council's law committee.
- Now there must be in-person verification before registration is granted to an applicant.
- Further, in case an applicant opts for Aadhaar authentication, he will undergo biometric-based Aadhaar authentication at one of the facilitation Centres notified by the Commissioner.
- 'Pay 1% in cash'

- The GST Council's law committee had mooted controlling new registrations taken by applicants without business purpose.
- These measures are notified to tighten the process and will impact the menace of mushrooming fake firms and input tax credit (ITC) fraud by fly-by-night operators
- Separately, a new rule has been introduced by the Central Board of Indirect Taxes and Customs that mandates businesses with monthly turnover of over ₹50 lakh to pay at least 1% of their GST liability in cash instead of using input tax credits to discharge their entire liability.
- The validity of e-way bills has also been tweaked, doubling the distance to be covered for each day of validity, effective January 1.
- Till now, an e-way bill for transporting goods under GST allowed transporters to cover 100 km in one day.
- Now, that distance for each day of validity has been increased to 200 km.
- While four days were granted in terms of e-way bill validity to cover 400 km, going forward, only two days will be granted for the same distance.

#### 4.9. India challenges Vodafone arbitration ruling in Singapore court

- India has appealed against the Vodafone tax arbitral award before a Singapore court
- The tax dispute involves an amount of approximately \$2 billion.
- In September, an international arbitration tribunal in The Hague had ruled that India's tax demand from Vodafone based on a retrospective legislation was in the 'breach of the guarantee of fair and equitable treatment' guaranteed under the India-Netherlands Bilateral Investment Treaty.
- The Indian government had 90 days to appeal.
- The issue of retrospective taxation first came to public attention when the government pursued what it described as a 'test case' against Vodafone, seeking to tax indirect transfers of shares in a non-Indian company.
- In January 2012, the Supreme Court unanimously found in favour of Vodafone, confirming that such transfers were not within the Indian tax remit.
- Less than two months after the apex court verdict, the Finance Ministry introduced an amendment to Section 9(1)(i) of the Income Tax Act, 1961, through Finance Bill, 2012.
- It says shares in a non-Indian company shall always be deemed to have been situated in India if their value derived substantially from underlying Indian assets.
- Describing it as 'clarificatory' in order to effectively overturn the Supreme Court's decision, the Finance Act 2012 declared that the retrospective amendment shall be deemed to have taken effect from 50 years earlier, on April 1, 1962.
- Following the amendment and action by the tax department, the tax dispute moved to the international level when Vodafone commenced arbitration proceedings and managed to defend its side.



## 4.10. Multiple bad banks needed to solve NPA problem: CII

- Context: The Confederation of Indian Industry (CII) has urged the government to consider setting up "multiple bad banks" to address the problem of mounting non-performing assets (NPAs) of state-owned lenders, which has worsened due to covid-led disruptions.
- A 'bad bank' buys the bad loans of other lenders and financial institutions to help clear their balance sheets.
- It is in line with finding a resolution mechanism through a market-determined price discovery.
- With huge liquidity, both globally and domestically, multiple bad banks can address this issue in a transparent manner and get the credit cycle back in
- In May, the Indian Banks Association (IBA) had suggested to the finance ministry and RBI to set up a bad bank.
- As part of its pre-budget recommendations, CII urged the government to consider enabling foreign portfolio investors (FPIs) and alternative investment funds (AIFs) to purchase NPAs.

**ET GRAPHICS**

**THE CASE FILE** The controversial tax case has a long history. Here's the story so far

# The Very Long, Winding Story of Vodafone Case

**THE DEAL**

- In May 2007, Vodafone acquired a controlling stake in Hutchison Essar, 4th largest Indian telecom firm then
- The deal size was estimated at \$11.2 billion
- The transaction was between companies based overseas and executed in the Cayman Islands

**TAX NOTICE**

- Tax notice was served on Vodafone International Holdings on October 30, 2009, under Sections 201 and 201(1A) of the Income Tax Act
- The notice was for non-deduction of tax at source
- The total tax payable was determined to be ₹11,218 crore in the order dated October 22, 2010, under Sections 201 and 201(1A)
- ₹7,900 crore penalty imposed on April 29, 2011 by tax dept

**BOMBAY HIGH COURT**

- Vodafone filed a writ petition in Bombay HC
- The court upheld the decision of tax authorities to proceed in a September 8, 2010, order

**SUPREME COURT RULING**

- In its January 20, 2012 ruling, the SC set aside the Bombay High Court ruling, quashing the tax and interest demand of ₹11,218 crore
- It said the subject matter of the transaction was the transfer of CGP Investments (Holdings) Ltd, a company incorporated in the Cayman Islands and Indian tax authority had no territorial tax jurisdiction
- Government filed a review petition on February 17, 2012, which the SC dismissed on March 20, 2012
- ₹2,500 crore deposited by Vodafone was returned with 4% interest as ruled by SC

In my view, the government should now accept this ruling and effect closure of this case as by its own philosophy, it is against retrospective amendments in tax laws... This will go a long way in giving comfort and confidence to global investors on India's commitment to honouring the rule of international law


**SUDHIR KAPADIA,**  
National Leader (Tax), EY India

Besides Tax, the tedious and time-consuming journey of this case... has a lot of lessons for all of us. This does require an introspection as to what we gained and what we lost in the whole process

**VIKAS VASAL,**  
National Leader Tax, Grant Thornton in India

**RETROSPECTIVE AMENDMENT**

- After the SC order, Parliament passed the Finance Act, 2012, retrospectively amending the law
- Section 119 of the Finance Act validated the tax
- Government claimed these were not retrospective changes but clarifying in nature – removing ambiguity and providing certainty



**FRESH DEMAND**

- Following the amendment, on January 3, 2013, a fresh demand was issued for ₹11,218 crore by the tax department
- Vodafone then made a request to settle the matter
- Panel formed to resolve issue did not make progress
- Vodafone invoked the bilateral tax treaty
- In April 2014, the company served arbitration notices under the India-Netherlands treaty

- New government did not roll back demand but said no fresh action under retrospective tax
- A fresh demand was issued on February 12, 2016, for ₹22,100 crore tax
- On September 25, 2020, arbitration court ruled in favour of Vodafone

- A robust market-based mechanism will encourage public sector banks to sell their bad loans without fear of questions being raised later.
- With cleaner balance sheets, PSBs should be able to raise capital from the market, obviating the need for recapitalization by the government
- The Centre has already announced recapitalization of ₹20,000 crore for this fiscal year to support state-owned lenders as the covid-19 crisis put borrowers under pressure.
- In FY20, the Centre had promised ₹70,000 crore to “boost credit for a strong impetus to the economy”.
- In 2017-18 and 2018-19, there were budgetary provisions as well as recapitalisation bonds.
- So far, most bad loans have been sold to asset reconstruction companies through the purchase of security receipts (SR)—an instrument where payment is made upon recovery.
- This indicated that the sale price is not a ‘true sale’.
- According to data on outstanding security receipts and industry estimates, the net recovery rate of ARCs is low—may be in the range of only around 10-12%.
- This represents the “non-cash” consideration received by banks against sale of loans.
- The low recovery rates and the sale on the basis of SRs is not a very attractive proposition for banks.
- The best way to achieve true price discovery and better realisations is to open the buy side and enable a clear path for capital to flow for purchase of NPA.
- According to the RBI, gross NPAs of banks may increase from 8.5% in March 2020 to 12.5% by March 2021.

**The Wishlist**

**Call for creation of multiple bad banks to absorb PSB NPAs, enable improved credit flow**

**Consider permitting FPIs, AIFs to buy NPAs**

**Sebi should frame regulations protecting stakeholder interests**

**Tax on gains from recoveries should be investor-friendly**

The infographic features a hand pointing at a magnifying glass over a bank building icon, with the word 'TAX' and a bar chart in the background. A red circle highlights the text 'Sebi should frame regulations protecting stakeholder interests'.

## 4.11. Govt plans to double farm mechanisation in 10 years

- Context: Government plans to double the area under mechanised farming over ten years and urged the industry to make small utility machines that can be of use for smallholder farmers in the country.
- Sub-Mission on Agricultural Mechanisation had been implemented in all the States so that they can promote the use of farm mechanisation and increase the ratio of agricultural power.
- The objective is to increase the reach of farm mechanisation to small and marginal farmers, while promoting efforts to improve the economy by promoting custom hiring centres, creating hubs for high-tech and high-value agricultural equipment, creating awareness among stakeholders and capacity building.

## Making Farming More Inclusive with Agricultural Mechanization



Farm Machines at the door steps of farmers with Custom Hiring Centers Mobile App



Skilling of migrant labourers in Farm Mechanization through SMAM\*



Under "AatmNirbhar Bharat Abhiyan" special drive for skilling migrant labourers of 116 identified districts in 6 States



India is the largest tractor manufacturer in the world with over 9 lakh units produced in 2019-20 & annual export of 92,000 units

\*Sub Mission on Agricultural Mechanization



#AatmaNirbharKrishi

Date: 8 August, 2020

- Through custom hiring scheme, the government is trying to provide expensive and large advanced agricultural equipment to the farmers on rent basis.
- There is a provision of up to 40 per cent subsidy in the project cost to the individual farmer, while a group of farmers can get a subsidy up to 80 per cent, the maximum amount of which is ₹10 lakh.
- Farmers in the northeast can receive support up to 95 per cent of the project cost.
- Through the crop residue management scheme, introduced by the Union Agriculture Ministry in 2018, machinery is provided to the farmers to prevent burning of straw.
- Subsidies are also provided to farmers for purchase of machinery through a custom hiring centre.
- Farm mechanisation can improve productivity by 30 per cent and reduce the cost of farming by 20 per cent.

## 4.12. Borrowing 43% more in first 9 months, states fall deeper into debt tarp

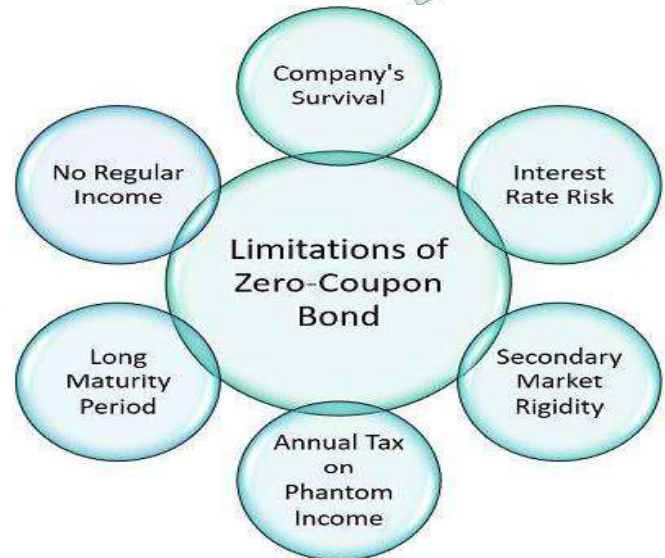
- Context: At ₹5,55,900 crore, the states whose finances have been ravaged by the pandemic, have snapped up as much as 43.5 per cent more debt from the market during the first nine months of the current fiscal with the conclusion of the last.
- According to an analysis by rating agency Icra, states had borrowed ₹3,87,400 crore in the first nine months of FY20.
- Over 65 per cent of borrowing have been lapped up by just five top borrowing states with Maharashtra borrowing ₹39,500 crore more, Karnataka ₹25,900 crore more, Tamil Nadu ₹16,600 crore more, Andhra an additional ₹15,300 crore and Telangana drawing down ₹13,400 crore more during these months.
- On last auction of the quarter, 13 states and one Union Territory sold ₹18,900 crore through the auction--which is nearly 44 per cent higher than the amount initially indicated for the week and twice as high as the year-ago level.
- Accordingly, the spread between the 10-year state loan and the G-sec increased to 70 bps today from 67 bps.
- Borrowing by the Government of India and Borrowing by States are defined under Article 292 and 293 of Constitution of India respectively.
- Article 293 of Constitution of India "Borrowing by States":
  - The executive power of a State extends to borrowing within the territory of India upon the security of the Consolidated Fund of the State within such limits, if any, as may from time to time be fixed by the Legislature of such State by law and to the giving of guarantees within such limits, if any, as may be so fixed.
  - The Government of India may, subject to such conditions as may be laid down by or under any law made by Parliament, make loans to any State or, so long as any limits fixed under Article 292 are not exceeded, give guarantees in respect of loans raised by any State, and any sums required for the purpose of making such loans shall be charged on the Consolidated Fund of India.
  - A State may not without the consent of the Government of India raise any loan if there is still outstanding any part of a loan which has been made to the State by the Government of India or by its predecessor Government, or in respect of which a guarantee has been given by the Government of India or by its predecessor Government.

## 4.13. Zero coupon bonds

- Context: The government has used financial innovation to recapitalise Punjab & Sind Bank by issuing the lender Rs 5,500-crore worth of non-interest bearing bonds valued at par.
- The funds raised through issuance of these instruments, which are a variation of the recapitalisation bonds issued earlier to public sector banks, are being deployed to capitalise the state-run bank.



- Though these will earn no interest for the subscriber, market participants term it both a 'financial illusion' and 'great innovation' by the government where it is using Rs 100 to create an impact of Rs 200 in the economy.
- Since these bonds are not tradable, the lender has kept them in the HTM bucket, not requiring it to book any mark-to-market gains or losses from these bonds.
- Government seems to have found an innovative way to capitalise banks, which does not affect the fiscal deficit while at the same time provides much needed equity capital to the banks.
- But this may not be a permanent solution for the banking sector's problems.



### What kind of bonds are these?

- Unlike the previous tranches of recapitalisation bonds which carried interest and were sold to different banks, these "non-interest bearing, non-transferable special GOI securities" have a maturity of 10-15 years and issued specifically to Punjab & Sind Bank.
- Only those banks, whosoever is specified, can invest in them, nobody else.
- It is not tradable, it is not transferable.
- It is limited only to a specific bank, and it is for a specified period ... it is held at the held-to-maturity (HTM) category of the bank as per the RBI guidelines.
- Since it is held to maturity, it is accounted at the face value (and) no mark-to-market will be there.
- Though zero coupon, these bonds are different from traditional zero coupon bonds on one account – as they are being issued at par, there is no interest; in previous cases, since they were issued at discount, they technically were interest bearing.
- Now these are made zero coupon and besides that there is no difference, the said amount will be paid on the maturity as per the government notification
- While accounting of these bonds is at par, effectively it's the net present value of the instrument which matters.

- These are instruments which are a variation of the recap bonds but effectively meet the same purpose, and these are issued in conformity with the RBI guidelines

### How do they differ from zero coupon bonds issued by private firms?

- Zero coupon bonds by private companies are normally issued at discount, but since these special bonds are not tradable these can be issued at par.
- This move buys times but doesn't solve the problem permanently.

## 4.14. Cabinet approves scheme for increasing ethanol production

- Context: The Cabinet Committee on Economic Affairs (CCEA) approved a modified scheme for extending interest subvention for those setting up grain-based along with molasses-based ethanol distilleries.
- The total outlay of the scheme is ₹8,460 crore for increasing India's ethanol production capacity, with the scheme extended to those setting up distilleries using grain, molasses, dual feed, sugar beet, sweet sorghum, and cereals as a feedstock.
- The assistance comes against the backdrop of ongoing protests by farmers against the new farm laws.
- The government would bear interest subvention for five years, including a one-year moratorium against the loan availed by project proponents from banks at 6% per annum or 50% of the rate of interest charged by banks whichever is lower.
- The government has been pushing for ethanol production after surplus sugar production depressed sugar prices, which consequently increased the dues of sugarcane farmers.
- There has been surplus production of sugar in the country since the sugar season of 2010-11 (other than the drought in the sugar season of 2016-17) and there is likely to be surplus sugar production in the country in coming years because of the introduction of improved varieties of sugarcane.
- The excess stock which remains unsold, also blocks the funds of sugar mills, thus affecting the liquidity positions of sugar mills and resulting in accumulation of cane price arrears of farmers.
- The government's move will help bear the interest of loans taken for setting up ethanol distillation capacity for a period of five years and will also help double the income of farmers.
- Increased ethanol blending with fossil fuels will help reduce pollution and strengthen India's resolve towards fulfilling commitments made at COP-21, the UN Climate Change Conference held in France in 2015.
- It will also help lower India's energy import dependency and lead to lowering the crude oil import bill.
- Interest subvention would be available to only those distilleries that supply at least 75% of ethanol produced from the added distillation capacity to oil marketing companies (OMCs) for blending with petrol.
- The blending percentage of ethanol with petrol is expected to go up from 1.53% in 2013-14 to 8.5% in 2020-21.
- The National Biofuel Policy 2018 envisages an indicative target of 20% blending of ethanol in petrol and 5% blending of biodiesel in diesel by 2030.

# National Policy on **Biofuels 2018**

## Salient features



An indicative target of **20%** blending of ethanol in petrol and **5%** blending of biodiesel in diesel is proposed by 2030.



With a thrust on **Advanced Biofuels**, the Policy indicates a viability gap funding scheme for **2G ethanol Bio refineries** of **Rs.5000 crore in 6 years** in addition to additional tax incentives, higher purchase price as compared to **1G biofuels**.



Categorization of Biofuels into **Basic Biofuels** - First generation(1G) Bioethanol & biodiesel and "**Advanced Biofuels**"- Second Generation(2G) ethanol, drop-in fuels, **algae based** Third Generation( 3G) Biofuels.



Increase scope of raw material for ethanol procurement by encouraging Intermediate (**B-Molasses**), Sugarcane Juice, other Sugar containing materials and damaged as well as surplus food grains.



Develop **National Biomass repository** by conducting appraisal of biomass across the Country.



Bio diesel production to be encouraged from non edible oilseeds, **used cooking oil**, short gestation crops and development of supply chain mechanisms.



Thrust on **research, development and demonstration** in the field of **Biofuel feedstock** production, advanced conversion technologies from identified feedstock.



Setting up of **National Biofuel coordination committee (NBCC)** under **Ministry of Petroleum & Natural Gas** and Working Group on Biofuels.



- India has an ethanol production capacity of 684 crore litre.
- For the targeted 20% blending of ethanol in petrol by 2030, the country will need a 1,000 crore litre capacity.

## 4.15.Cabinet approves Industrial Corridor nodes at Krishnapatnam and Tumakuru

- Three proposals from the Department of Promotion of Industry & Internal Trade (DPIIT) have been approved.
- These include the Krishnapatnam Industrial Area in Andhra Pradesh.
- The second is the construction of Tumakuru Industrial Area in Karnataka



**MODI GOVT. PROVIDES IMPETUS TO INDUSTRIAL CORRIDORS**

Govt. approves Industrial nodes at Krishnapatnam, Tumakuru and Multi Modal Logistics Hub & Multi Modal Transport Hub at Greater Noida

**Major Benefits:**

-  **Boost for employment generation**
-  **Attract investment into manufacturing**
-  **Reduce logistics cost & improve operational efficiency**
-  **Seamless connectivity across Rail, Road and MRTS to passengers**
-  **Boost to "Aatmanirbhar Bharat" & "Make in India"**



**MODI GOVT. PROVIDES IMPETUS TO INDUSTRIAL CORRIDORS**

Govt. approves Industrial nodes at Krishnapatnam, Tumakuru and Multi Modal Logistics Hub & Multi Modal Transport Hub at Greater Noida

**Salient Features:**

-  **One-stop destination to freight companies and customers**
-  **Creation of greenfield industrial cities with plug n play, ICT enabled utilities**
-  **World-class infrastructure**
-  **Road & Rail connectivity for freight movement to and from ports & logistic hubs**
-  **World-class passenger movement facilities**

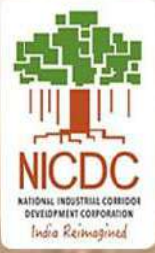
- The third project is the Multi Modal Logistics Hub (MMLH) and Multi Modal Transport Hub (MMTH) at Greater Noida, Uttar Pradesh.



- The objective of Industrial Corridor Programme is the creation of greenfield industrial cities with sustainable, 'plug n play', ICT enabled utilities to facilitate the manufacturing investments into the country by providing quality, reliable, sustainable and resilient infrastructure to industries.
- These developed nodes will be immediately allotted in order to attract investments into manufacturing and positioning India as a strong player in the Global Value Chain.
- Through industrialisation, these projects are said to generate employment opportunities for more than 2.8 lakh persons.
- The Industrial Corridor Programme thrives to attain the objective of creation of an 'Atmanirbhar Bharat' to drive the growth of industries and create greater avenues for investments across the country.
- Both the projects in Krishnapatnam and Tumakuru have been approved to start the development in Chennai Bengaluru Industrial Corridor Project (CBIC).
- These Greenfield industrial cities will be self-sustained with world-class infrastructure, road and rail connectivity for freight movement to and from ports and logistic hubs along with reliable power and quality social infrastructure.
- The MMLH and MMTH projects approved in Greater Noida are in close proximity to Eastern peripheral expressway, NH91, Noida- Greater Noida Expressway, Yamuna Expressway, Eastern & Western Dedicated Freight Corridors.
- Logistics Hub project will be developed as a world-class facility that will provide efficient storage/transitioning of goods to/from the Dedicated Freight Corridors (DFC) and offer a one-stop destination to freight companies and customers.
- The facility will not only provide standard container handling activities but also provide various value-added services to reduce logistics cost with improved efficiency of operations.
- The MMTH will act as a transport hub with Rail, Road and MRTS accessibility for the passengers.
- Located near the Boraki Railway Station, will have space for Inter State Bus Terminal (ISBT), Local Bus Terminal (LBT), Metro, commercial, retail & hotel space and green open spaces.
- The project will provide world-class passenger movement facilities for the growing population of the catchment zone catering to upcoming developments in UP sub-region of the NCR and thus, decongest Delhi.
- These projects are expected to generate employment for about 1,00,000 persons by 2040.
- They are said to have a positive impact on the growth opportunities in the surrounding area.

#### 4.16. Maintaining 4% inflation appropriate for India: RBI paper

- Context: Maintaining 4 per cent inflation is appropriate for India as targeting a lower rate could impart deflationary bias to the monetary policy, said a Reserve Bank paper.
- RBI has been mandated by the government to maintain retail inflation at 4 per cent with a margin of 2 per cent on either side.
- The paper, authored by RBI Deputy Governor has found a steady decline in trend inflation to 4.1-4.3 per cent since 2014.



## NATIONAL INDUSTRIAL CORRIDOR

## INFLATION

- **Inflation** refers to a situation in which the economy's overall price level is rising.
- The **inflation rate** is the percentage change in the price level from the previous period.
  - Not all prices rise at the same rate during inflation.
  - Not everyone suffers equally from inflation.
  - Although inflation makes some people worse off, it makes some people better off
- Hyperinflation is an extraordinarily high rate of inflation such as Germany experienced in the 1920s.
- Hyperinflation is inflation that exceeds 50% per month

MULTI MODAL LOGISTICS HUB & MULTI MODAL TRANSPORT HUB (DMIC)

TUMAKURU INDUSTRIAL AREA (CBIC)

KRISHNAPATNAM INDUSTRIAL AREA (CBIC)

PROJECTS WORTH  
**Rs 7,700 CRORE**  
APPROVED BY THE GOVERNMENT OF INDIA

- A target set too below the trend imparts a deflationary bias to monetary policy because it will go into overkill relative to what the economy can intrinsically bear in order to achieve the target.
- Analogously, a target that is fixed above-trend renders monetary policy too expansionary and prone to inflationary shocks and unanchored expectations.
- Hence, maintaining the inflation target at 4 per cent is appropriate for India.
- Estimating trend inflation with regular updates is important for the formulation of monetary policy, irrespective of the country setting.
- In India, this exercise acquires priority in the context of the flexible inflation targeting formally instituted in June 2016, which commits the central bank – the RBI – to a consumer price inflation target of 4 per cent with a symmetrical tolerance band of +/- 2 per cent around it.

- Section 45ZA of the Reserve Bank of India Act, 1934 mandates that the Central Government shall, in consultation with the Bank, determine the inflation target once in every five years.
- The inflation target has to be reviewed by end-March 2021.
- In this context, trend inflation provides the metric to gauge the appropriate level of the target going forward.
- In a bid to keep inflation under specified level, the government in 2016 had decided to set up Monetary Policy Committee headed by the RBI Governor entrusted with the task of fixing the benchmark policy rate (repo rate).
- The six-member panel, which had its first meeting in October 2016, was given the mandate to maintain annual inflation at 4 per cent until March 31, 2021, with an upper tolerance of 6 per cent and lower tolerance of 2 per cent.

## 4.17. Report on Trend and Progress of Banking in India 2018-19

- Context: Reserve Bank of India released the Report on Trend and Progress of Banking in India 2018-19, a statutory publication in compliance with Section 36 (2) of the Banking Regulation Act, 1949.
- This Report presents the performance of the banking sector, including co-operative banks, and non-banking financial institutions during 2018-19 and 2019-20 so far. The highlights of the Report are set out below:
- The banking sector showed improvement with the gross non-performing assets (GNPA) ratio of Scheduled Commercial Banks (SCBs) declining from 11.2 per cent in March 2018 to 9.1 per cent in March 2019 and a return to profitability in H1: 2019-20.
- This turnaround has been facilitated by a conducive policy environment underpinned by the traction in insolvency and bankruptcy code (IBC).
- Recapitalisation of Public Sector Banks (PSBs) shored up the capital position of PSBs.
- In the co-operative banking arena, the consolidated balance sheet of Urban Co-operative Banks (UCBs) expanded in 2018-19 on account of robust deposit growth, although, a fall in interest income adversely affected their profitability; among rural co-operatives, the financial health of state co-operative banks and district central co-operative banks weakened with an increase in the non-performing assets and slowdown in profitability.
- The pace of credit expansion by NBFCs, which began slowing in 2018-19, continued in the first half of 2019-20, largely affected by the performance of non-deposit taking systemically important NBFCs (NBFCs-ND-SI), though capital buffers remained above the stipulated norms. Bank credit remained a stable source of funding for NBFCs.
- The Report also offers some perspectives on the evolving outlook for India's financial sector.

## 4.18. Textile Ministry streamlines procedure under tech upgradation scheme A-TUFS

- Context: The Textile Ministry has taken further steps to streamline procedures under the Amended Technology Upgradation Fund Scheme (A-TUFS), including a deadline extension for filing applications for verification, to make it easier for the industry to benefit from it.
- The textile industry units claiming subsidy can file application for physical verification after installation and commissioning of the machinery, within two years from the date of sanction of term loan, subject to production of documentary proof that the order for machinery was placed within one year.
- Earlier, the units were required to seek approval for the second year from the Textile Commissioner for extension of timeline beyond one year with proof of pacing order for machinery.

### Credit-linked subsidy

- A-TUFS aims to facilitate employment, investment, quality, productivity, as well as import and export substitution in the textile industry while indirectly promoting investments in the manufacturing of machinery for textiles.
- It is a credit linked subsidy for capital investment in the textiles and manufacturing sectors.
- The textile industry had made representations to the government seeking relaxations in various requirements under A-TUFS because of disruptions caused by the Covid-19 pandemic.
- A relaxation has been also been approved in the 88-day timeline prescribed in A-TUFS guidelines for carrying out physical verification of machinery.
- This is designed to expedite the clearance of backlog verification cases under A-TUFS pending due to the pandemic
- This exercise will be completed by June 30, 2021

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### A Tech Transformation for New India's Textile Sector

Amended Technology Upgradation Fund Scheme (ATUFS)

- Provides **capital investment subsidy** for different segments of the textile value chain
- Facilitates augmenting of **investment, productivity, quality, employment & exports in the textile industry**

### Minimum loan repayment period

- The minimum loan repayment period for both MSMEs and non-MSMEs has been revised to three years including the moratorium period
- Earlier, it was five years for non-MSMEs.
- In November 2020, 58 UIDs were issued with a project cost of ₹213.72 crore and subsidy requirement of ₹20.14 crore under A-TUFS, per latest figures.

## 4.19.CAG writes to Finmin, seeks performance audit details of PSU banks recapitalization

- Context: The Comptroller and Auditor General of India (CAG) has written to the finance ministry seeking details about the ongoing performance audit of government's massive recapitalisation exercise of public sector banks (PSBs).
- CAG is doing performance audit on recapitalisation of PSBs after 2016-17 and it has written a letter to the Department of Financial Services, Ministry of Finance, seeking various information, including rationale for distribution of capital among different PSB
- The Government of India made capital infusion to the tune of Rs 90,000 crore in 2017-18.
- This rose to Rs 1.06 lakh crore in the following year.
- During the last financial year, the capital infusion through bonds was Rs 70,000 crore.
- For the current fiscal, the government has earmarked Rs 20,000 crore for the capital infusion into the PSBs.
- Of this, the government allocated Rs 5,500 crore to Punjab & Sind Bank in November 2020 for meeting the regulatory requirement prescribed under under the Basel III guidelines.
- The audit is to analyse the impact of capital infusion in PSBs and how it has been able to improve the financial parameters such as Return on Assets (ROA), Return on Equity (ROE) and rate of growth of advances.
- In its last report released in July 2017, CAG had pointed out some shortcomings in distribution of capital to various banks.
- It had also raised doubts over possibility of PSU banks raising about Rs 1 lakh crore from market by 2019.
- The rationale for distribution of government of India capital among different PSBs was not found on record in all cases.
- Some banks which did not qualify for additional capital as per decided norms were infused with capital, a bank was infused with more capital than required, while others did not receive the requisite capital to meet their capital adequacy requirements
- The Centre infused Rs 1,18,724 crore in PSBs during 2008-09 to 2016-17. CAG had said.
- Of this, SBI NSE 1.61 % received the maximum capital infusion of Rs 26,948 crore, which is nearly 22.7 per cent of the total capital infusion.
- IDBI Bank, Central Bank of India, Indian Overseas Bank and Bank of India were also significant beneficiaries with 8.77 per cent, 8.61 per cent, 7.88 per cent and 7.80 per cent of the total capital infusion, respectively.
- Punjab & Sind Bank and Indian Bank received the lowest capital infusion, at 0.20 per cent and 0.24 per cent of the total funds infused.
- Central Bank of India and UCO Bank were given capital in eight out of nine years under audit scrutiny while Indian Bank received capital only once, in 2014-15.

## 4.20. Telangana Govt. withdraws regulated farming

- Context: The State government has withdrawn regulated farming, which was introduced in the last agricultural season to discourage maize and promote fine variety of paddy, pulses and oilseeds for reasons of demand in the market.
- In the ongoing rabi season, farmers were left to decide for themselves their preferred crops.
- The government has also decided not to purchase produce on its own from farmers in their villages, which was also taken up in the last season.
- Now, the farmers can sell their produce wherever they fetched good price.
- Govt is of the view that it was not possible to purchase or sell farmers' produce as it was not into merchandise.
- Also, the new farm laws enacted by Centre envisaged that farmers could sell their produce anywhere.
- Therefore, the farmers should be allowed to sell at the local agricultural markets like in the past but a token system of arrivals on scheduled dates should be introduced.
- There will be release of money under Rytu Bandhu scheme of investment support to farmers for the ongoing rabi into their bank accounts through January.
- A sum of ₹ 7,515 crore was envisaged for release to 61.49 lakh farmers for 1.52 crore acres of farm lands at ₹ 5,000 per acre for the season,
- The government had suffered a loss of about ₹ 7,500 crore due to its procurement policies since the formation of the State.



**my GOV**  
मेरी सरकार

PM Modi Flags Off New Bhaupur-New Khurja Section Inaugurates Operation Control Centre of Eastern Dedicated Freight Corridor

**Key Highlights of His Address (1/2)**



- Today, when the first goods train runs in the Khurja Bhaupur freight corridor we can hear the roar of AatmaNirbhar Bharat
- Prayagraj Operation Control Center is one of the modern control centers and a symbol of the new strength of the New India
- India is moving fast towards the path of becoming a big economic power, hence the best connectivity is the priority of our country
- Govt is working on every aspect of modern connectivity for the last 6 years; We're focusing on 5 wheels of highways, railways, airways, waterways & i-ways

- The government procured at minimum support price paddy, maize, jowar, red gram, bengal gram, sunflower, black gram and other crops but sold the produce at lesser rates as there was no demand in the market.

## 4.21.PM inaugurates New Bhaupur-New Khurja section of eastern freight corridor

- Context: Prime Minister inaugurated the 351-km New Khurja – New Bhaupur section of the eastern dedicated rail freight corridor, and the operation control centre (OCC) located at Prayagraj, from where trains are tracked.
- Mango farmers of Malihabad, marble traders of Rajasthan, car makers from Faridabad region, leather trade from Kanpur and Agra are likely to benefit from the freight corridor.
- Consumers, industry, farmers, traders and all other stakeholders will benefit from the freight corridor, the Prime Minister said and urged people to refrain from damaging infrastructure. A trend that is seen during protests is that infrastructure is damaged
- The 351-km section is situated in Uttar Pradesh.
- The section will also open new opportunity for the local industries such as aluminium industry (Pukhrayan region of Kanpur Dehat district), dairy sector (Auraiya district), textile production/block printing (Etawah district), glassware industry (Firozabad district), pottery products (Khurja of Bulandshahr district), asafoetida or 'hing' production (Hathras district) and locks and hardware (Aligarh district), said a release.
- The section, that will decongest the existing Kanpur-Delhi main line and will enable the Railways to run faster trains, is built by Tata Projects Ltd.
- The OCC at Prayagraj will act as the command centre for the entire route length of the EDFC.


### SUICIDE SAGA IN STATE: COMPENSATION NO BALM

<b>CLAIMS UNDER RYTHU BIMA</b>	3,740 Deaths registered	3,619 Claims submitted	3,510 Claims settled	₹175.50 crore Amount transferred into nominee/appointees A/C		
<b>RYTHU BANDHU SCHEME</b>	58.33L No. of farmers	14.327L CR Total extent	58.98L Total no. of cheques	₹5,730.70CR Total amount		

**109 Claims under processing in LIC**

**“Rythu Bandhu is a good move. But unfortunately, in Telangana, govt made mistake of restricting it to landowners. As a result, many tenant farmers, who do cultivation & bear all risks, are not able to get this support”**  
**GV Ramanjaneyulu**  
 AGRICULTURAL SCIENTIST, CENTRE FOR SUSTAINABLE AGRICULTURE

FARMER SUICIDES IN TELANGANA (BY MP CONSTITUENCY)			
MP constituency	No. of suicides	MP name	Party
Medak	400	Kotha Prabhakar Reddy	TRS
Bhongir	350	Boora Narsaiah Goud	TRS
Nalgonda	321	Gutha Sukender Reddy	INC
Karimnagar	311	Vinod Kumar Boianapalli	TRS
Adilabad	304	Godam Nagesh	TRS



- The OCC is one of the largest structures of its type globally.
- The Eastern DFC is a 1,856-km stretch starting from Sahnewal near Ludhiana to Dankuni in West Bengal.
- The Western DFC with a length of 1,504 km is from JN Port (Mumbai) to Dadri.

**THE BEGINNING OF  
A GOLDEN ERA  
FOR INDIAN FARMERS**

**TELANGANA LEADS THE WAY IN  
FARMER EMPOWERMENT**

**RYTHU  
BANDHU**

**THE FIRST EVER FARMER INVESTMENT SUPPORT SCHEME**

**₹ 8000/ACRE  
GRANT TO ALL TELANGANA FARMERS EVERY YEAR**

**₹12,000 CR**  
BUDGETARY ALLOCATION  
The total budget provisioned for the scheme in 2018-19 for the farmers of Telangana

**93%**  
LAND UTILIZATION-RATE  
90% of land (1.43 crore acres) pure and litigation free post updation and correction of revenue records

**58 LAKH**  
FARMERS TO BENEFIT  
Pattadar Passbook cum Title Deed with 17 security features and the first Cheque to be distributed to 58 lakh farmers from 10th May 2018

**IN TELANGANA, AND NOWHERE ELSE IN INDIA**

**TELANGANA  
NEW STATE  
FRESH IDEAS**

**SHRI K. CHANDRASHEKHAR RAO**  
HON'BLE CHIEF MINISTER OF TELANGANA

**CLEANING LAND RECORDS,  
CREATING HAPPY FARMERS.**

The Telangana Government bridged the gap between land records and the ground reality with a herculean programme of updating and purifying the revenue records in just about hundred days (15th September 2017 to 31st December 2017).

The programme deployed 1,523 teams in 10,823 villages in 568 mandals of 30 districts in Telangana (excluding Hyderabad), verifying a mammoth total of 2,38,18,551 acres of land.

**SIGNIFICANT FEATURES OF  
THE PATTADAR PASSBOOK:**

- Anti-copying feature (personal details of the farmer to be attested on the photograph)
- Hologram of the Government of Telangana.
- A unique QR code – a dynamic code that will help in pulling up the profile and transactions of the passbook holder when required
- Barcode with a unique transaction ID

**FOCUS AREAS OF LAND  
RECORD PURIFICATION:**

- Successions
- Mutations
- Partitions
- Name, Extent & Survey Number Corrections
- Exchange of Lands
- Consolidation of Land Holdings
- Updating Accounts
- Terminating Duplicate Accounts
- Inherited Land
- Gifted Land
- Non-agricultural Land
- Government Land
- Community Land
- Forest Land
- Acquired Land
- Wakf/Endowment/Bhoodan Land

**A NOVEL INITIATIVE BY A VISIONARY GOVERNMENT, FOR THE FIRST TIME IN THE HISTORY OF INDIA.**

Issued by: Department of Information & Public Relations, Government of Telangana

- The dedicated freight corridor (DFC) is one of the largest rail infrastructure projects undertaken by the Government with an overall cost of ₹81,459 crore.

## 4.22.RBI operationalizes Payment Infra Development Fund (PIDF)





- We have planned to start 2 dedicated freight corridors. The first will connect Punjab's Ludhiana to Dankuni, WB; The second will connect Maharashtra to Dadri, UP
- Industrial corridors of Delhi-Mumbai & Amritsar-Kolkata are being developed around these Freight Corridor. Similarly, North to South & East to West Corridors are being planned
- Such dedicated freight corridors will ensure carriage trains can run at 3X speed & carry 2X load capacity
- India is now building modern trains, Varanasi is becoming a center for Electric Locomotives, Rail Coaches manufactured in Rae Bareilly are now being exported abroad



- Context: The Reserve Bank of India (RBI) announced the operationalisation of the payment infrastructure development fund (PIDF) scheme, which is intended to subsidise deployment of payment acceptance infrastructure in tier-3 to tier-6 centres, with a special focus on the north-eastern states of the country.
- An advisory council (AC) under the chairmanship of RBI deputy governor has been constituted for managing the PIDF.
- The PIDF presently has a corpus of Rs 345 crore, with Rs 250 crore contributed by the RBI and Rs 95 crore by the major authorised card networks in the country.
- The authorised card networks shall contribute in all Rs 100 crore.
- The card issuing banks shall also contribute to the corpus based on the card issuance volume – covering both debit and credit cards – at the rate of `1 and `3 per debit and credit card issued by them, respectively.
- Besides, the PIDF shall also receive annual contributions from card networks and card issuing banks. Card networks will have to chip in with one basis point (bps), or 0.01 paisa per rupee of transaction.
- Card issuing banks will have to contribute one bps and two bps –0.01 paisa and 0.02 paisa – per rupee of transaction for debit and credit cards respectively.
- They must also contribute Rs 1 and Rs 3 for every new debit and credit card issued by them during the year.
- The RBI shall contribute to yearly shortfalls, if any.

- Tentatively, tier-3 and tier-4 centres will be allocated 30% of the acceptance devices, tier-5 and tier-6 centres will get 60% and the north eastern states will be given 10%.
- Payment methods that are not interoperable shall not be considered under the PIDF.
- The subsidy shall not be claimed by applicants from other sources like the National Bank for Agriculture and Rural Development (Nabard), etc.

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**MAKE IN INDIA**

## INTERLINKING NEW INDIA'S PROGRESS WITH UPCOMING POWERFUL FREIGHT CORRIDOR

Indian Railways is on the fast track to build Dedicated Freight Corridors through Dedicated Freight Corridor Corporation of India Limited across the country. As an emerging power, India needs steady and fast movement of fuel, infrastructure material and trade goods that will be boosted by the Dedicated Freight Corridors. This marks a strategic inflexion point that will accelerate India's growth drive, improve customer orientation and meet market needs faster.

- Entire Dedicated Freight Corridor, comprising 3,360 km (approx) of track, entailing investment of Rs. 81,459 Cr to be completed by 2020. This will spur rapid industrial development along the corridor**
- First sections of Eastern DFC and Western DFC completed**
  - Eastern DFC: Bhadan to Khurja - 200 km completed
  - Western DFC: Rewari-Madar section - 306 km completed
- Train length to be increased from existing 700 meters to 1,500 meters. Double stack container trains to move on Western DFC section**

- Train load to be increased to 13,000 tonnes from existing 5,000 tonnes**
- Goods train to run at increased speed of 100 kmph from existing 75 kmph**
- Shifting of goods traffic to DFCs will enable running of more passenger trains on existing congested railway tracks**
- Environment friendly energy efficient mode will hugely facilitate reduction in pollution**
- DFCCIL will substantially increase railways share in freight transportation in comparison to road sector, which will result in saving precious fuel and foreign exchange**



**NAMUMKIN AB  
MUMKIN HAI**

- The implementation of targets shall be monitored by the RBI with assistance from card networks, the Indian Banks' Association (IBA) and the Payments Council of India (PCI).
- Those who do not achieve their targets shall be disincentivised, by scaling up or down the extent of reimbursement of subsidy.

## 4.23. Blue Economy is going to be an important source of Aatma Nirbhar Bharat: PM

**BLUE ECONOMY**  
The Blue Economy is sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.  
The Blue Economy encompasses many activities...

**RENEWABLE ENERGY**  
Sustainable marine energy can play a role in social and economic development.

**TOURISM**  
Ocean and coastal tourism can bring jobs and economic growth. Coastal, Least Developed Countries and Small Island Developing States receive more than **41 million** visitors per year.

**WASTE MANAGEMENT**  
80% of litter in the ocean is from land-based sources. Better waste management on land can help oceans recover.

**INVEST INDIA.GOV.IN**

**RBI's boost to digital payments in India**

- Announces Payments Infrastructure Development Fund (PIDF)
- Aims to encourage the adoption of 'Points of Sale' machines by businesses in tier-3 to tier-6 centres and Northeastern states
- To make an initial contribution of INR 250 Cr to PIDF covering half the fund\*

\*Remaining contribution to come from card-issuing banks and card networks operating in India | Source: RBI

To learn about other aspects of the blue economy, visit [www.worldblueeconomy.org](http://www.worldblueeconomy.org)

- Context: PM outlined a multi-pronged plan for coastal area development comprising transforming the blue economy, improvement of coastal infrastructure and protecting the marine ecosystem
- Ports and coastal roads are being connected with a focus on multi-modal connectivity.
- Coastal infrastructure is being improved to meet the demand of the rising needs and aspirations.

**Pradhan Mantri Matsya Sampada Yojana**

- To enhance fish production to **220 LMT** by 2024-25
- To register **3,477 "Sagar Mitra"** in coastal fisher villages
- ₹20,000 crores** investment in next 5 years
- Doubling** fishers and fish farmers income and generation of employment

- Steps like helping fishermen with deep sea fishing, separate fisheries department, providing affordable loans and Kisan Credit Cards to the people engaged in aquaculture are helping both entrepreneurs and general fishermen.
- Recently launched 20 thousand crore Matsya Sampada Yojna will directly benefit lacs of fishermen in Kerala and Karnataka.
- India is progressing rapidly in the fishery related exports.
- All steps are being taken to turn India into a quality processed sea-food hub.
- India can play a major role in fulfilling the growing demand of seaweed, as farmers are being encouraged for seaweed farming.



## 4.24. Sebi moots new ownership framework for setting up market infrastructure institutions

- Context: Sebi proposed a new framework for ownership of market infrastructure institutions to facilitate new entrants to set up stock exchanges and depositories.
- It has suggested a liberalised framework in the landscape of MIIs (Market Infrastructure Institutions) by allowing higher shareholding at the inception stage and prescribing a dilution in the ownership over a period of time.
- New norms pertaining to tenure of MD and CEO of MIIs -- stock exchanges, depositories and clearing corporations -- have also been proposed.
- Sebi has recommended a more diversified composition of statutory committees at MIIs to boost corporate governance norms.
- There is a need to incentivise fintech players through suitable relaxations in the ownership framework to enter the Indian MII space.
- It has been proposed that promoters -- resident individuals, domestic institutions (resident owned and controlled) -- setting up the MII may, directly or indirectly, either individually or together with persons acting in concert, can hold up to 100 per cent shareholding.
- In case of foreign entities, such limit has been proposed up to 49 per cent.
- MII should also be a public limited company.
- The watchdog noted that Indian securities market has been characterised by dominant level of market concentration by a single entity in the trading and depository space.
- Since, stock exchanges and depositories fundamentally represent the intersection of technology and markets, there is a concern that excessive concentration may lead to abuse of one's dominant position in the business as well as institutional tardiness in responding in a timely manner to the changing dynamics of capital markets ecosystem.

## 4.25. Centre may impose 18% GST on bitcoin trading

- Context: The Central Economic Intelligence Bureau (CEIB), an arm of the union finance ministry has put forward a proposal to impose 18 per cent GST on bitcoin transactions.
- The CEIB told the Central Board of Indirect Taxes & Customs (CBIC) that government could potentially gain Rs 7,200 crore annually on bitcoin trading.
- It suggested finance ministry that bitcoin can be categorised under 'intangible assets' class and GST could be imposed on all transactions.
- It added that cryptocurrency can be treated as current assets and GST charged on the margins made in its trading.
- Supreme Court had asked the government to come up with cryptocurrency regulation policies.
- The apex court in March 2020 struck down the curb on cryptocurrency trade in India.



## A Big Impetus to Blue Revolution

Implementation of Pradhan Mantri Matsya Sampada Yojana Approved (2/3)



To create critical infrastructure including **modernisation & strengthening of value chain**



Will generate direct employment to about **15 lakh fishers, fish farmers, fish vendors etc**



Doubling of fishers, fish farmers and **fish workers incomes by 2024**



To be implemented under **Central Sector Scheme(CS)** & Centrally Sponsored Scheme (CSS), the latter having Beneficiary & Non-beneficiary oriented subcomponents



## A Big Impetus to Blue Revolution

Implementation of Pradhan Mantri Matsya Sampada Yojana Approved (3/3)

### Funding Pattern under CS:



The entire project **cost to be borne by Central govt**



For direct beneficiary oriented activities, assistance on project **cost upto 40% for General & 60% for SC/ST/Women**

**Funding Pattern under CSS:** Project cost for both Beneficiary & Non-beneficiary oriented subcomponents to be shared between Centre & State as:



North Eastern & Himalayan States- **90:10%**



Other States - **60% : 40% State**



UTs - **100% Central share**



For Beneficiary oriented subcomponents, Govt. to provide financial assistance on **project cost upto 40% for General & 60% for SC/ST/Women**

- The SC quashed an earlier ban imposed by the Reserve Bank of India (RBI) on trading in virtual currencies such as bitcoin.
- The RBI had virtually banned cryptocurrency trading in 2018 and had directed that all entities regulated by it shall not deal in virtual currencies or provide services for facilitating any person or entity in dealing with or settling those
- Currently, bitcoin, as a medium of payment, has neither been authorised nor been regulated by any central authority in India.
- Further, no set rules, regulations, or guidelines have been laid down for resolving disputes that could arise while dealing with bitcoin.
- Hence, bitcoin transactions come with their own set of risks.

## 4.26. Labour Ministry issues draft for Standing Orders for manufacturing, mining, services sectors

- Context: The Labour Ministry has issued drafts for the Model Standing Orders under proposed Labour Code.
- The Standing Orders refer to the rules of conduct for workmen employed in industrial establishments.
- This is the first time, the draft orders have been prepared for the services sector considering the increasing importance of Work from Home.
- These orders will cover all industrial establishments, employing 300 workers or more, and which are covered under the Occupational Safety, Health and Working Conditions Code, 2020.

## 4.27. Small finance banks with plans to float IPO hope RBI will extend deadline to list

- Context: A clutch of small finance banks, which are preparing to launch their initial public offerings (IPOs), are hoping to get an extension in their listing deadline.

### RBI guidelines

- The Reserve Bank of India (RBI) guidelines require small finance banks to list within three years of their net worth reaching ₹500 crore.
- Of the 10 entities that had started SFB operations, only three, including AU, Ujjivan and Equitas, have been listed so far.
- Others like Suryoday SFB, Jana SFB and ESAF SFB are working on their IPO plans.
- Suryoday SFB recently received SEBI approval to float an IPO.
- The banks, which have fleshed out their IPO plans, are likely to go ahead with it, while others are hoping to get an extension

- The recent report of the Internal Working Group of the Reserve Bank of India to Review Extant Ownership Guidelines and Corporate Structure for Indian Private Sector Banks had also highlighted the issue.

## 4.28.CCEA approves industrial development scheme for J&K

- Context: The Cabinet Committee on Economic Affairs (CCEA) has approved a scheme for the industrial development of Jammu & Kashmir.

**Narendra Modi**  
Prime Minister

**Manoj Sinha**  
Lieutenant Governor, J&K

### The Dawn of a New Industrial Era in J&K

#### New Industrial Development Scheme 2021

- Service industry incentives at par with manufacturing sector
- GST linked incentives to new investments to the tune of 300% in plant and machinery
- Fast track single window clearance

#### Key Features

- Incentives of Rs. 28,400 cr to industries upto the year 2037.
- Greater economic impetus at block level development.
- Manufacturing and Service Sector Units to be beneficiaries.
- The scheme nurtures the existing industries.
- Attractive for both MSME and larger units.
- The new scheme to attract substantial investment and generate employment upto 4.5 lakh persons.

#### INCENTIVES

- Capital Investment Incentive**  
At the rate of 30% in Zone A and 50% in Zone B on investment
- Capital Interest subvention**  
At the annual rate of 6% for maximum 7 years on loan amount up to Rs. 500 crores for investment
- Working Capital Interest Incentive**  
All existing units at the annual rate of 5% for maximum 5 years. Maximum limit of incentive is Rs 1 crore.
- GST Linked Incentives**  
Units eligible for GST linked incentives up to 300% of capital investment in plant and machinery

**Department of Industries & Commerce**  
Government of Jammu & Kashmir

Director, Industries & Commerce, Jammu  
Contact: 0191-2474085 | Email: directorindcomjammu@gmail.com

Director, Industries & Commerce, Kashmir  
Contact: 0194-2493041/2490018 | Email: dirindustries@yahoo.com

To know more, please visit [www.jkindustriescommerce.nic.in](http://www.jkindustriescommerce.nic.in) | @DoI\_C\_JK

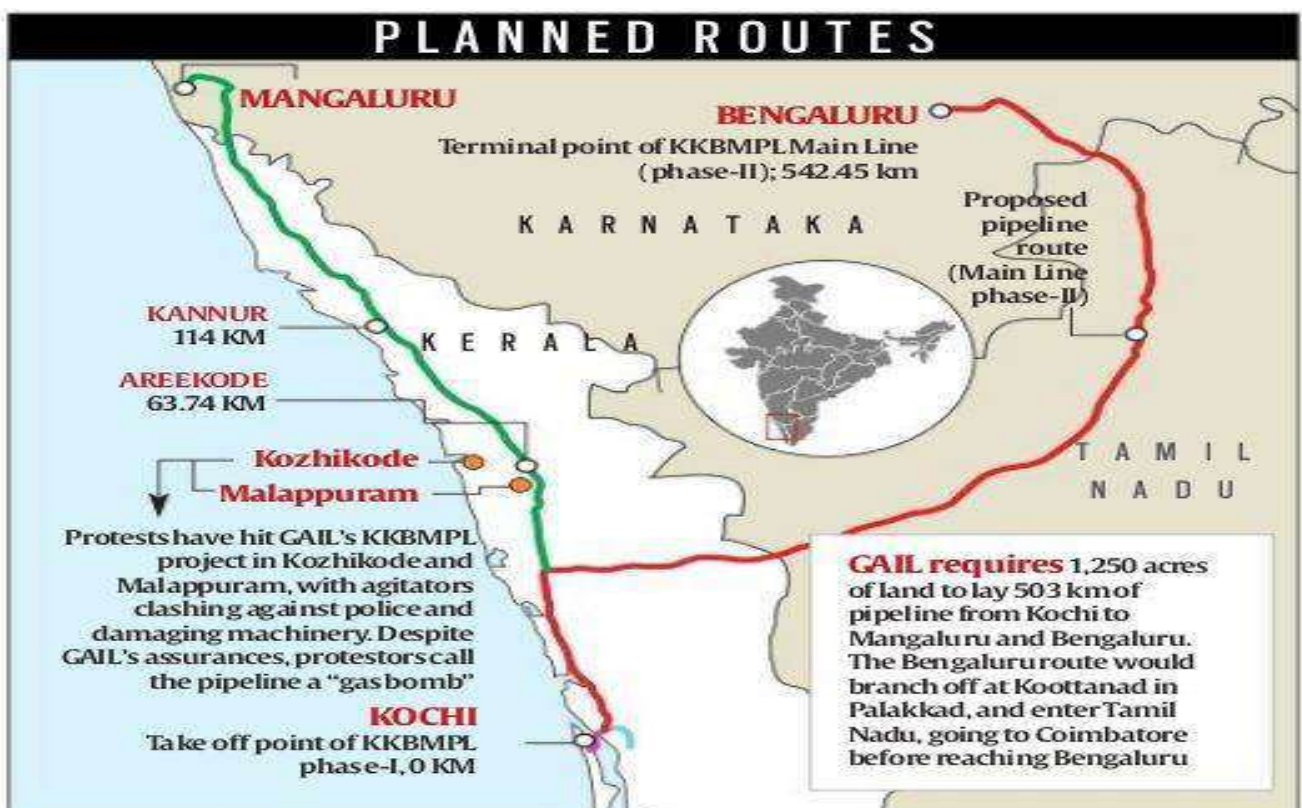


- The proposal of Department for Promotion of Industry and Internal Trade for the Central Sector scheme has been approved with a total outlay of ₹28,400 crore up to 2037.
- The main purpose of the scheme is to generate employment leading to the socio-economic development of the area
- The present scheme is being implemented with the vision that industry and service-led development of J&K needs to be given a fresh thrust with emphasis on job creation, skill development and sustainable development by attracting new investment and nurturing the existing ones.

### Incentives

- Under this scheme, companies will get capital intensive incentives, capital interest subvention, working capital incentive and GST-linked incentives.
- Smaller units with an investment in plant & machinery up to ₹50 crore will get a capital incentive of up to ₹7.5 crore and get capital interest subvention at the rate of 6 per cent for maximum seven years.
- The scheme has been simplified on the lines of ease of doing business by bringing one major incentive – GST Linked Incentive – that will ensure less compliance burden without compromising on transparency.
- It is not a reimbursement or refund of GST but gross GST is used to measure eligibility for industrial incentive to offset the disadvantages that the UT of J&K faces.
- Meanwhile, all existing units will be able to avail working capital interest incentive at the annual rate of 5 per cent for five years and the maximum limit of incentive has been set at ₹1 crore.

## 4.29.Prime Minister inaugurates 450-km Kochi-Mangaluru natural gas pipeline



- Context: Prime Minister said that as part of efforts to making India a natural gas-based economy, 10,000 more CNG (compressed natural gas) stations would be opened and several lakh PNG (piped natural gas) household connections given in the coming days.

**#UrjaAatmanirbharta**

## **KOCHI – MANGALURU NATURAL GAS PIPELINE**

**Spearheading India's quest to  
become a gas-based economy**



Facilitate convenient & environment-friendly PNG to households & commercial units and CNG for transportation to 10 districts along the pipeline.



Provide clean and sustainable fuel to petrochemicals, chemicals & fertilisers sector and give fillip to other gas-based industries.



Drive self-reliance in India's energy landscape and help realise the goal of Aatmanirbhar Bharat.



Create large-scale opportunities for direct and indirect employment in the region.



Usher economic growth and facilitate cleaner environment in Kerala and Karnataka.



- Inauguration of the 450-km Kochi-Koottanad-Mangaluru LNG (liquefied natural gas) pipeline is a part of "one nation-one gas grid" policy.
- The government plans to move towards a gas-based economy that would be cheaper, convenient and environment-friendly.
- The plan is to increase the share of natural gas in the energy sector from the present 6% to 15% by 2030.
- Focus is being given to increase ethanol production so as to increase ethanol content in petrol to 20% from the present 5%.
- The world's largest hybrid energy plant (wind and solar) is coming up in Gujarat.
- The electric mobility sector too is being encouraged.

- Through these, alternative, cheap and pollution-free fuel and energy would be made available to people.
- The project, conceived in 2007, envisages pipelines from Kochi to Mangaluru and to Bengaluru

### 4.30.NHAI downsizes toll-operate-transfer-4 bid by Rs 2,000 crore

- Context: The government has downsized its fourth bid for monetisation of toll assets by around Rs 2,000 crore as it seeks to attract smaller investors that will help monetise assets faster.
- The National Highways Authority of India (NHAI) had invited bids for the fourth round of toll-operate-transfer (TOT) auctions in October 2020 to raise Rs 4,170 crore, with a total of seven road stretches having a cumulative length of 400 km.
- The authority has now downsized the package, reducing the initial estimated concession value (IECV)—the base price of the bid—to Rs 2,165 crore.
- The concession period of the bundle has now been reduced to 20 years.
- Road stretches in TOT-4 are spread across Jammu & Kashmir, Punjab, Haryana, Rajasthan and Madhya Pradesh.
- The development follows a recent cabinet nod to NHAI for changes in the TOT model.
- Among major changes, NHAI now exercises flexibility to vary the concession period of toll projects between 15 & 30 years, instead of 30 years earlier
- Roads can now be monetized one year from the commencement of operations instead of two years earlier.
- The TOT model was introduced in 2016 to monetize publicly-funded highways, where investors could make a one-time lump-sum payment in return for toll collection rights of 30 years under this model.
- The flexibility in concession period is aimed at attracting a wider range of investors.
- The authority is expected to offer 15,000 km of road stretches for monetization by 2024-25.
- NHAI is looking at smaller TOT bundles to afford itself a larger pool of recyclable assets to choose from.

**Change of Plans**

**Base price of the bid reduced by ₹2,005 cr**  
One road stretch in Maharashtra omitted  
Concession period brought down to 20 years  
New base price ₹2,165 cr  
Total size now at 341 km

**What it means...**

- ▶ Smaller investors can come in
- ▶ Opportunity for Indian cos with less capital

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## 4.31. Global and India output set to expand in 2021-2022: World Bank

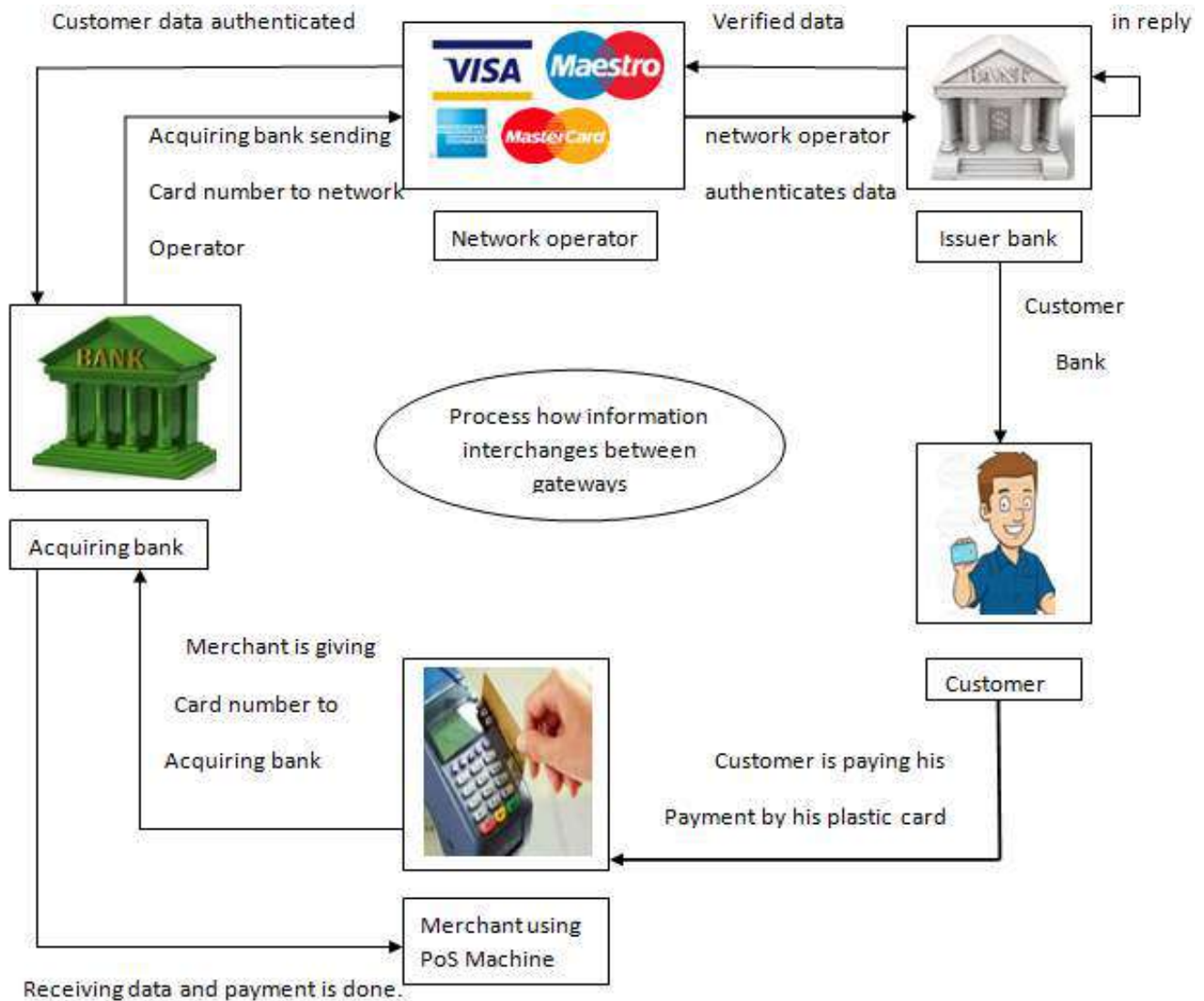
- Context: Global economic output is projected to grow by 4% in 2021 assuming widespread roll-out of a COVID-19 vaccine throughout the year, as per the World Bank's Global Economic Prospects (GEP) report

### Key Findings

- This projection is still 5% below pre-pandemic levels.
- However, recent data indicate that recovery in manufacturing and services is gaining momentum.
- The global recovery has been dampened by the resurgence of the coronavirus but is expected to strengthen as confidence, trade and consumption start improving, supported by vaccinations.
- Dramatic inequality: Those with the lowest incomes were worst hit by the downturn and would likely take the longest to regain jobs, healthcare, vaccines and so forth in the post-COVID-19 economy.
- Those with job security, in contrast, and those at the top at the income scale were direct beneficiaries of substantial government and central bank support for their assets.
- Massive increases in global debt levels: Policy makers need to balance the risks from large and increasing debt loads with the risks of slowing the economy via fiscal tightening.
- To confront the adverse legacies of the pandemic, it will be critical to foster resilience by safeguarding health and education, prioritising investments in digital technologies and green infrastructure, improving governance, and enhancing debt transparency.
- Global cooperation will be key in addressing many of these challenges.
- South Asia slowdown led by India
- There is continued asset purchase risks.

## 4.32. MeitY considers reimbursing merchant discount rates for UPI to payment firms

- Context: After facing pressure from digital payment firms, the ministry of electronics and information technology (MeitY) is looking at options to reimburse transaction fees or merchant discount rates (MDR) to payment firms for merchant transactions on Unified Payment Interface (UPI) and RuPay network.
- MDR is the cost paid to banks and payment service providers (PSPs), during a transaction, and is applicable on peer-to-merchant (or P2M) payments.
- The Finance Minister had earlier said that starting January 1, 2020, businesses with annual turnover of more than ₹50 crore will have to offer low-cost digital payment options to customers, without levying any Merchant Discount Rate (MDR) on either customers or merchants.
- MeitY currently has been trying to understand the impact and stifling of growth on issuances of RuPay cards, as large Indian banks are increasingly shifting focus away from the payment network, due to lack of a transaction fee.



- This has come to hurt the National Payments Corporation of India (NPCI), which operates the UPI and RuPay card network in the country, and is heavily lobbying for the reversal of zero-MDR on digital payments with MeitY on behalf of Indian banks.
- In spite of zero-MDR, NPCI earns a switching fee from every digital transaction made on its payment network, causing certain players in the industry to question this business model as well.
- In spite of payment firms finding no monetisation on spreading the UPI infrastructure, NPCI has been charging its switching fee for the network
- For a company which just licenses these products, its revenues have grown by 40% in the last 4 years, while no other financial services company is making revenues through UPI and RuPay.

### 4.33. Seventh Trade Policy Review Of India Begins At WTO

- India's seventh Trade Policy Review (TPR) began in January 2021, at the World Trade Organization in Geneva.
- The TPR is an important mechanism under the WTO's monitoring function, and involves a comprehensive peer-review of the Member's national trade policies.
- India's last TPR took place in 2015.

- India emphasized that this TPR is taking place at a time when the world is witnessing an unprecedented health and economic crisis.
- India highlighted its far-reaching efforts to effectively address the health and economic challenges posed by the COVID-19 pandemic, including the Aatma Nirbhar Bharat initiative.
- India said it is committed to ensuring equitable and affordable access to vaccines and COVID-treatments for all, and underlined the critical role that multilateral trading system can play in this regard.
- In order to deal with the immediate fall-out of the COVID-19 pandemic, India has advocated a short-term package of effective measures at the WTO that includes:
  - ✓ A temporary waiver of certain TRIPS provisions to increase manufacturing capacity
  - ✓ Ensure timely and affordable availability of new diagnostics, therapeutics and vaccines for COVID-19
  - ✓ A permanent solution for Public Stockholding (PSH) for food security purposes to address food security concern
  - ✓ A multilateral initiative that provides for easier access to medical services under mode-4 to facilitate easier cross-border movement of health care professionals.

## 4.34. India urges WTO to find solution for public stock holding for food security

### India's stand

- The ongoing COVID-19 pandemic has again brought to the fore the importance of food and livelihood security
- Under the global trade norms, a WTO member country's food subsidy bill should not breach the limit of 10 per cent of the value of production based on the reference price of 1986-88.
- Apprehending that the full implementation of food security programme may result in breach of WTO cap, India has been seeking amendments in the formula to calculate food subsidy cap.
- As an interim measure, WTO members at the Bali ministerial meeting in December 2013 had agreed to put in place a mechanism, popularly called the Peace Clause, and committed to negotiate an agreement for permanent solution.

**India Impact**

WHAT INDIA WANTED		WAY FORWARD
<b>A PERMANENT SOLUTION FOR FOOD security by improving existing peace clause</b>	<b>STOPPING ENTRY OF NEW ISSUES LIKE investment facilitation, e-commerce, MSMEs</b>	
SAFEGUARDING WTO & MULTILATERALISM		
WHAT INDIA GOT	NEW ISSUES & NON TRADE	
<b>NO DILUTION IN PEACE clause that protects MSP programmes for foodgrain</b>	<b>NO FAST-TRACKING of e-comm talks</b>	© BCCL 2021. ALL RIGHTS RESERVED.
<b>NO COMMITMENTS to curb fisheries subsidies</b>	<b>NEW ISSUES &amp; NON TRADE issues like gender &amp; trade were not taken forward</b>	

# AoA: Domestic Support

Green Box	Blue Box	Amber Box
payments linked to environmental programs, pest and disease control, infrastructure development, and domestic food aid. direct payments to producers if those payments are linked to a fixed, historic base period government payments to income insurance and emergency programs	supports that require farmers to limit production	all domestic support measures considered to distort production and trade that governments have to reduce but not eliminate  measures to support prices, or subsidies directly related to production quantities.

## 4.35. Swaminathan says MSP better than loan waiver

- Context: Agricultural scientist Monkombu Sambasivan Swaminathan, known as the father of India's Green Revolution, has said the Union government should fix minimum support prices (MSPs) for farm produce by using a broader and more comprehensive measure of cultivation costs than the one being currently used.
- Swaminathan first recommended that MSPs – which act as a floor price to avoid distress sales – should be “at least 50% more than the weighted average cost of production” in the fifth report of the National Commission on Farmers set up under his chairmanship.
- The recommended 50% over costs, meant complete costs called C2, which includes all assumed costs
- The protesting farmers, apart from a repeal of the laws, have also demanded a law guaranteeing MSPs calculated using the C2 yardstick.
- The C2 formula of calculating cost of cultivation includes the imputed cost of capital and the rent on the land to give farmers 50% returns, rather than a narrower measure that takes into account the all paid-out costs incurred by

### WHAT THE COMMISSION SUGGESTED

The Swaminathan Commission had suggested working out a system for:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ Food and nutrition security</li> </ul>              | <ul style="list-style-type: none"> <li>■ It had also suggested to recommend measures for credit and other marketing related steps.</li> </ul>          |
| <ul style="list-style-type: none"> <li>■ Sustainability in the farming system</li> </ul>     | <ul style="list-style-type: none"> <li>■ One of the key recommendations was to ensure a minimum of 50% profits over the cost of production.</li> </ul> |
| <ul style="list-style-type: none"> <li>■ Enhancing quality</li> </ul>                        |  |
| <ul style="list-style-type: none"> <li>■ Cost competitiveness of farm commodities</li> </ul> |  |

a farmer and the value of family labour (A2+FL).

### How cost of production is calculated matters.

- Average MSPs fixed for winter-sown crops show that if C2 costs are used as a benchmark, returns for most crops are lower than 50%.
- However, when A2+FL is used, returns are higher than 50% in crops such as paddy and wheat.
- The Union government says it has implemented the Swaminathan commission recommendation by setting MSPs such that they offer 50% returns over costs of cultivation, a decision first announced in the 2018-19 budget.
- However, the government uses the narrower A2+FL measure to calculate MSPs.

Stressing that MSPs should include the broadest measure of a farmer's costs including rental value of land, Swaminathan said, Many states announce loan waivers.

- Instead of spending so much on loan waivers, the government should use the money to give 50% profits based on C2 costs.

- It has been argued, however, that the Swaminathan report plainly states that "MSP should be at least 50% more than the weighted average cost of production" without specifying which cost of production is to be used.
- Swaminathan's report also states that the net take-home income of farmers should be comparable to those of civil servants.
- The Swaminathan Commission, set up in November 2004, has initially submitted four reports in December 2004, August 2005, December 2005 and April 2006, followed by a fifth and final report in October 2006.
- In 2017, Swaminathan said that MSPs should be calculated to cover C2+50%, in addition to being accompanied by procurement, storage and distribution.

### Assured and Remunerative Marketing

- Calculation of Minimum Support Price (MSP) – Cost [C2] + at least 50%
- Procurement price (MSP + Cost escalation)
- Implementation of MSP throughout the country
- Market Intervention Scheme (MIS)
- Universal Public Distribution System (PDS) and enlarge the Food Basket to include maize, jowar, bajra and millets
- Commission on Agricultural Costs and Prices (CACP) – Autonomous, Statutory body
- Net take home income of Farmers – VI Pay Commission to study as background information
- Indian Single Market
- Price Stabilisation Fund

## 4.36.USTR calls India's digital services levy discriminatory

- Context: Digital Services Taxes (DST) imposed by India, Italy and Turkey discriminate against American companies and are out of sync with established international tax principles: US Trade Representative (USTR).

USTR started investigation in June last year against Equalisation Levy (EL), on the ground of Section 301 of the U.S. Trade Act of 1974.



- The tax applied since April 1, 2020 covers all digital transactions in India, including e-commerce supplies by non-resident players.
- Besides, the scope of DST was expanded to include transactions that use Indian data if the firm's revenue from India is Rs. 2 crore and above.
- The Commerce Ministry considers this levy very moderate and applies it equally on all overseas e-commerce operators doing business in India.
- The office of USTR said the law explicitly exempts Indian companies, and targets non-Indian firms.
- This impacts U.S technology companies as they are taxed higher than their Indian counterparts.
- USTR noted that of the 119 companies liable under DST, 86 are U.S. companies.
- The tax is levied on companies with no permanent establishment in India, and is applied on a firm's revenue rather than income.
- According to the office's estimates, the tax creates an additional burden of \$30 million per year for the American companies.
- This is because India levies digital tax on various categories of services that are not taxed in other countries.
- In addition to this, USTR said DST increases the compliance cost of companies, which could run into millions.
- India submitted its comments to the USTR on July 15, 2020 and participated in bilateral consultations in November. It stuck with the fact that Equalisation Levy is not discriminatory.
- The levy does not discriminate against any U.S. companies, as it applies equally to all non-resident e-commerce operators, irrespective of their country or residence

## WAIT-AND-WATCH APPROACH

➤ The equalisation levy (EL), which was **introduced from June 1, 2016 in a limited way**, requires an Indian payer to deduct 6% on payments (if in excess of ₹1 lakh a year) to a non-resident for online ads in a B2B transaction

to deposit the levy and bears filing obligations

➤ International thinktank OECD is evolving a taxation road map for a digital economy and **India may wish to be in sync internationally**



➤ The actual **burden is borne by the Indian customer** due to higher pricing

➤ This may encourage the govt to adopt a wait-and-watch approach instead of widening the EL's scope in Budget 2018

➤ The Indian customer also has



## THE FINE PRINT

**US's charge:** Digital services taxes being levied or considered by some countries "unfairly" target American tech companies

**Major US firms impacted:** Google, Facebook, Twitter, Amazon




**Countries under USTR scanner:** India, Brazil, Italy, the UK, Spain, Austria, the Czech Republic, Turkey, Indonesia

### How much tax India levies:

**6%** in the form of equalisation levy on digital firms' advertising revenue. In addition, **2%** tax is levied on overseas e-commerce purchases by India-based companies

- The purpose of EL is to ensure fair competition, reasonableness and exercise the ability of governments to tax businesses that have a close nexus with the Indian market through digital operations.

## DIFFERENT STROKES

USTR probe:		Indian official:
India's digital services tax (DST) from Apr 2020 is <b>'discriminatory'</b> , as it targets only non-residents		US probe ignores the <b>2016 levy on domestic firms</b> ; levy's scope was only widened last year to level playing field
DST taxes firms' revenue rather than income, so it's inconsistent with <b>global tax principles</b>		Several global tax measures, including those on royalty and technical fees, are not levied on income
Firms should not be subject to a country's <b>corporate tax absent a territorial connection</b> to it		Almost all US states have laws on <b>remote sellers/market-place facilitators</b> , which tax even non-US resident entities

# ALL ABOUT Tax



PERSON MAKING PAYMENT FOR SPECIFIED SERVICES TO A NON RESIDENT

Person residing in India carrying on Business/Profession Or Non Resident having a Permanent Establishment in India

"permanent establishment" includes a fixed place of business through which the business of the enterprise is wholly or partly carried on.

Aggregate of  
**1 Lakh in a Year**

A Non Resident who doesn't have a Permanent establishment in India

- Online advertisement or any services
- Rights for use of software for online advertising
- Hosting & Maintenance of Websites
- Email & Blogging Services
- Facilitating Ecommerce for goods & Services
- any other service as may be notified by the Central Government in this behalf

@ 6%

amount of consideration for any specified service received or receivable by a person.

SHALL DEDUCT THE EQUALISATION LEVY FROM THE AMOUNT PAID OR PAYABLE

The Equalisation Levy so deducted shall be deposited to the credit of the Central Govt by the SEVENTH DAY OF EVERY MONTH immediately following the month in which the deduction was made.

FAILURE TO DEDUCT SO

Failure to deduct so in accordance with the provisions shall make the assessee liable to pay the levy to the credit to central government.

THE EQUALISATION LEVY UNDER SECTION 162(1) SHALL NOT BE CHARGED, WHERE

- the non-resident providing the specified service has a permanent establishment in India;
- the aggregate amount of consideration does not exceed one lakh rupees;
- where the payment for the specified service is not for the purposes of carrying out business or profession.



## 4.37.1,600 new tech start-ups, 12 unicorns added in 2020: Nasscom report

- Context: India has added 1,600 new tech start-ups and a record 12 unicorns in 2020, according to the National Association of Software and Services Companies (Nasscom) annual start-up report.
- Despite being a pandemic year, 2020 did one better than 2019 when just over 1,300 new start-ups and seven unicorns were added.
- The report, 'Indian Tech Start-up Ecosystem – On the March to Trillion Dollar Digital Economy', said that 2020 saw the highest ever new start-ups added in a single calendar year.
- Covid-19 has accelerated digital adoption and the shift to online in the country.



## 4.38. Government floats PPP model for dredging projects at major port trusts

- Context: The Government has floated the concept of undertaking channel deepening and maintenance works at major port trusts through the public-private-partnership (PPP) mode.
- According to the draft dredging guidelines for major port trusts prepared by the ministry of ports, shipping and waterways a PPP model may be worked out for dredging projects with the hybrid model of combining the capital dredging with maintenance dredging for 10-20 years

- The revenue share between major ports and PPP operator may be the bidding parameter for floating the PPP projects.
- The existing PPP operators of the berth may share proportionate cost based on the volume of cargo handled along with the berths operated by the major ports themselves
- The increased depth translates into reduction in transportation cost due to economies of scale as the cargo movement is shifted from Panamax to Capesize vessels for bulk cargo handling.
- Given the high capital expenditure required for channel deepening works, the major ports may adopt the PPP mode to ensure funding from private agencies with support from the major ports.
- Significant capital dredging is required at major ports in 3-5 years to handle the anticipated container vessels of 20,000 twenty-foot equivalent units (TEUs) capacity and bulk cargo carrying Capesize vessels.
- Adopting the PPP model for capital dredging will ensure that dredging is taken up as a “service requirement” for the port with minimal operation burden with the Port Authority.

## COAST TO COST

- Move to cut financial burden on port trusts
- Capital dredging costs up to Rs 1,500 cr
- Currently, ports fund dredging on their own
- Govt willing to give VGF for corporates

### Shortcomings

- It is being argued that PPP in dredging will be very difficult as it is full of uncertainties; PPP is good for projects where certainty is there.
- The complex traffic structure to be developed by major ports for different berth operators with different category of cargo is a key risk.
- As per the plan, the revenue for the PPP dredging operator will depend on the increase in traffic.
- And, linking it to traffic will bring in more uncertainty.
- Stipulating measurable performance indicators including assured depth during the period of concession and adequate financial returns as per the financial viability structure also poses risk to the PPP model.

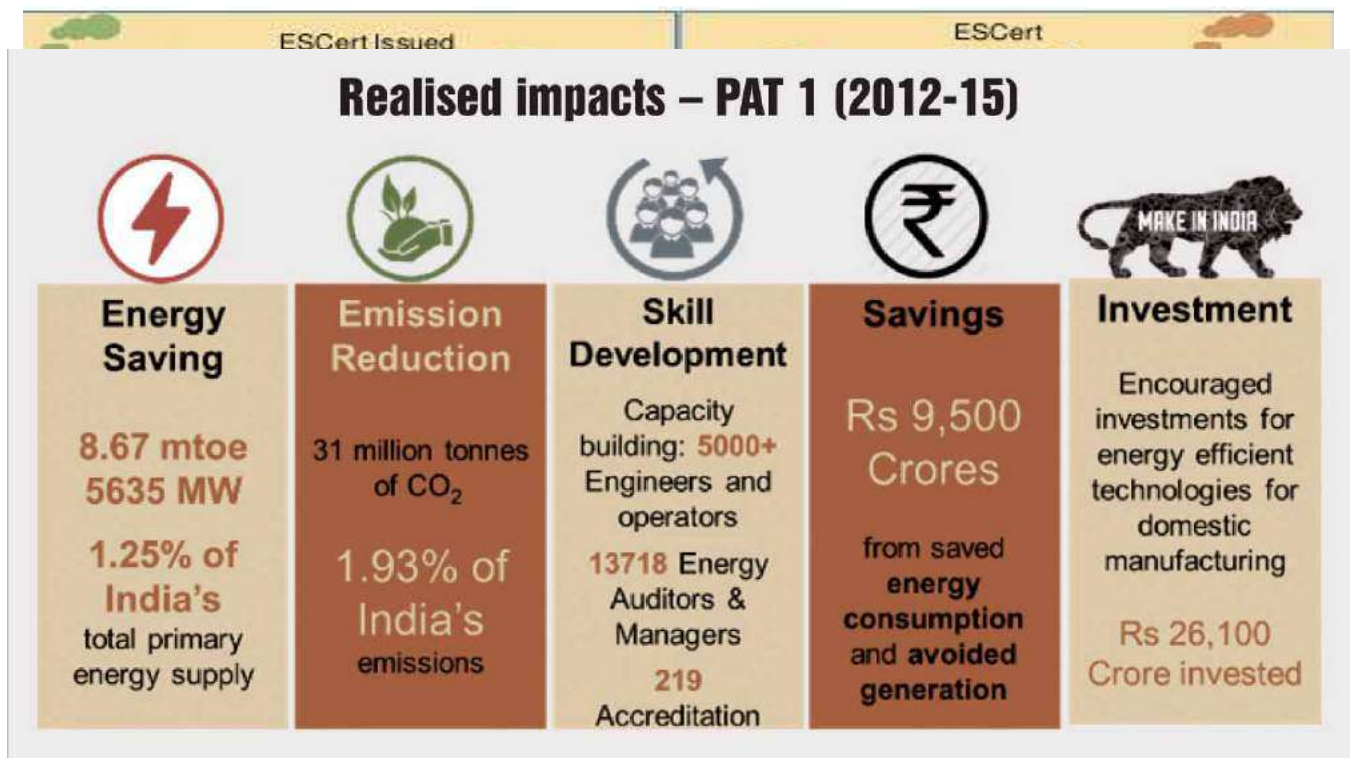
## 4.39. Second Cycle of Perform, Achieve and Trade (PAT) scheme

### What is PAT

- Perform Achieve and Trade (PAT) scheme is a flagship programme of Bureau of Energy Efficiency under the National Mission for Enhanced Energy Efficiency (NMEEE).
- Perform Achieve and Trade (PAT) scheme is a market based compliance mechanism to accelerate improvements in energy efficiency in energy intensive industries.
- The energy savings achieved by notified industries is converted into tradable instruments called Energy Saving Certificates (ESCerts). The ESCerts after issuance by Bureau of Energy Efficiency are traded at Power Exchanges.
- (NMEEE is one of the eight national missions under the National Action Plan on Climate Change (NAPCC) launched by the Government of India in the year 2008.)

- ✓ For compliance under Energy Consumption Norms and Standards of Designated Consumer notified under PAT scheme, price of one metric tonne of oil equivalent is calculated based on the fuel mix used by various notified Designated Consumer in a specified target year.
- ✓ The Ministry of Power, notifies such price applicable for Designated Consumers of a specified cycle of PAT scheme for quantification of their compliance, in case of any default to meet the specified norms and standards.
- ✓ The price of one metric tonne of oil equivalent discovered for the year 2018-2019 is based on the changes in corresponding energy mix due to addition of new sectors viz. Petroleum Refinery, Railways and Electricity Distribution companies under the Perform, Achieve and Trade Scheme and further streamlining of price calculation methodology.

## The PAT Mechanism



### About BEE

- BEE is a statutory body under the Ministry of Power.
- It assists in developing policies and strategies on energy conservation and efficiency with the primary objective of reducing the energy intensity of the Indian economy.
- BEE coordinates with designated consumers, designated agencies of the states, and other related organization to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act, 2001.

## Projected outcome – PAT cycle 2 (2016-2019)



### Energy Saving

**17.5 mtoe**  
**11407 MW**

**Equiv. to 2.09%**  
**of India's**  
total primary energy supply



### Emission Reduction

60 million tonnes of CO2

Equiv. to 3-4% of India's emissions



### Skill Development

Capacity building:  
**12,000+**

Engineers and operators

**15,000** Energy Auditors & Managers

**500** Accreditation



### Savings

**Rs 19,100 Crores**

from saved energy consumption and avoided generation



### Investment

**Rs 30,000 Crore** projected investments encouraged in domestic manufacturing of energy efficient technologies

## Digital Economy



## Snapshot of the Indian Tech Start-up Ecosystem in 2020

### **12 Unicorns**

(>\$1 Billion Valuation) added in 2020; total 38 unicorns are active; India added 2<sup>nd</sup> highest number of Unicorns in 2020, after USA

### **11,000-12,500 Start-ups**

incepted during 2015-20, overall base growing at 8-10% year-over-year despite COVID-19

### **\$3.5 Billion Total funding**

received by Start-ups in 2020 (Jan-Dec)

### **1600+ Start-ups**

added in 2020; steady and sustained growth in new start-ups

### **19% Share**

of all start-ups leveraging deep-tech (AI/ML, AR/VR, IoT, Blockchain, Robotics, 3D Printing, Big Data & Analytics)

#startupindia

NASSCOM Report 2020

# Towards A Trillion Dollar Digital Economy

my  
GOV  
मेरी सरकार



## 2021 Promises A Return to Normalcy for Indian Tech Start-up Ecosystem

\*According to Zinnov CoNXT Research & Analysis



### Unicorns

India is on track to have 50+ strong Unicorn club in 2021



### Exits

Mergers & Acquisitions will accelerate in 2021 and IPO pipeline will strengthen for FY 21-22



### Growth of Ecosystem

Deep-tech & new start-up hubs will continue to grow at 40- 45% Compound Annual Growth Rate



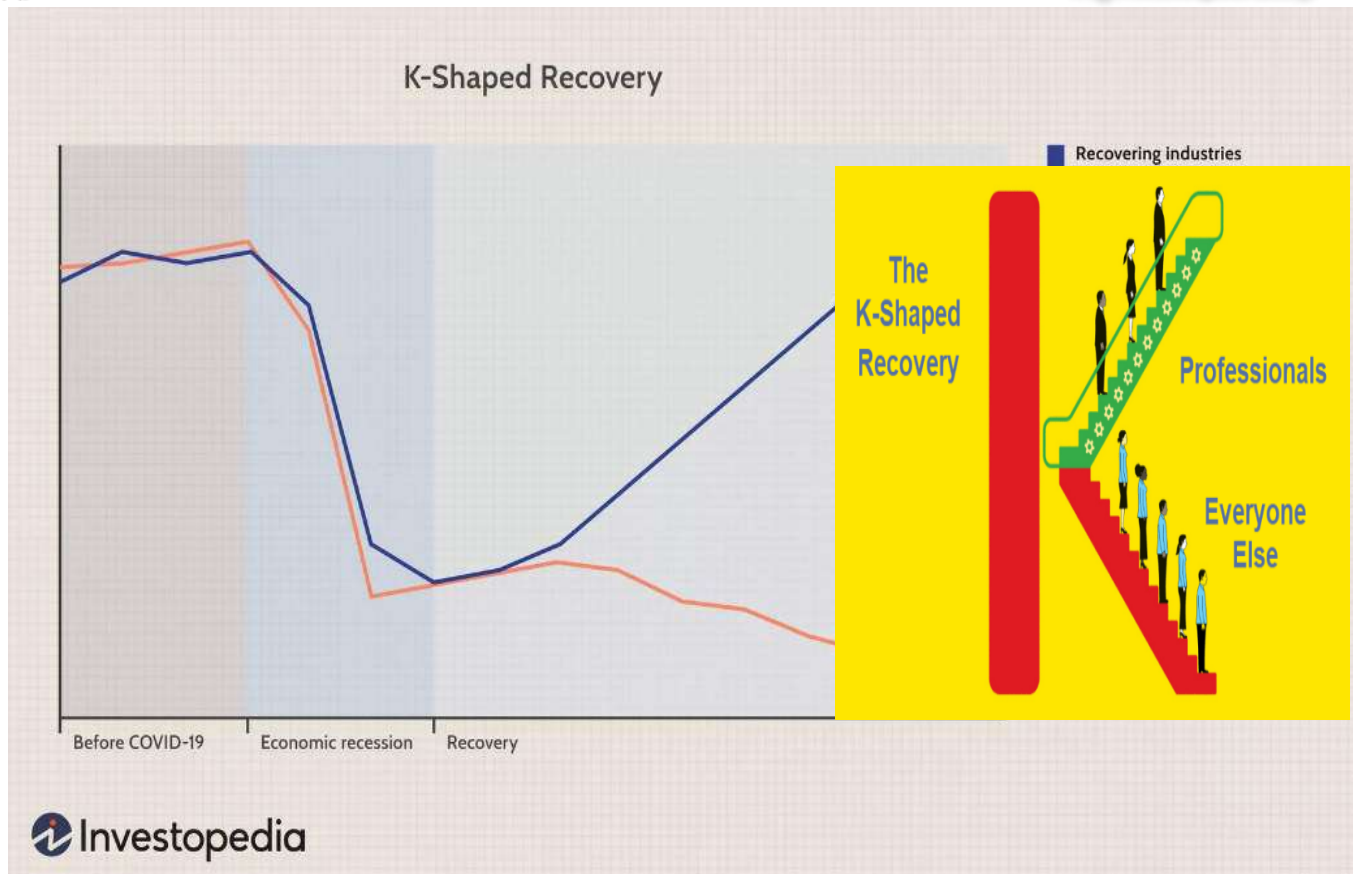
### Investors & Corporates

Competition will intensify significantly, more than 2019



### Investments

Will reach 2019 levels, if not exceed, in 2021



## 4.40.K-shaped economic recovery, and its implications

### What is a K-shaped recovery?

- A K-shaped recovery happens when different sections of an economy recover at starkly different rates.
- Households at the top of the pyramid are likely to have seen their incomes largely protected, and savings rates forced up during the lockdown.
- Meanwhile, households at the bottom are likely to have witnessed permanent hits to jobs and incomes.
- These cleavages are already visible.
- Passenger vehicle registrations (proxying upper-end consumption) have grown about 4 per cent since October while two-wheelers have contracted 15 per cent.

### What are the macro implications of a K-shaped recovery?

- With the top 10 per cent of India's households responsible for 25-30 per cent of total consumption, one could argue consumption would get a boost as this pent-up demand expresses itself.
- But it's important not to conflate stocks with flows, and levels with changes.
- Upper-income households have benefitted from higher savings for two quarters. What we are currently witnessing is a rush from those savings being spent.
- This is, however, mostly a one-time effect.



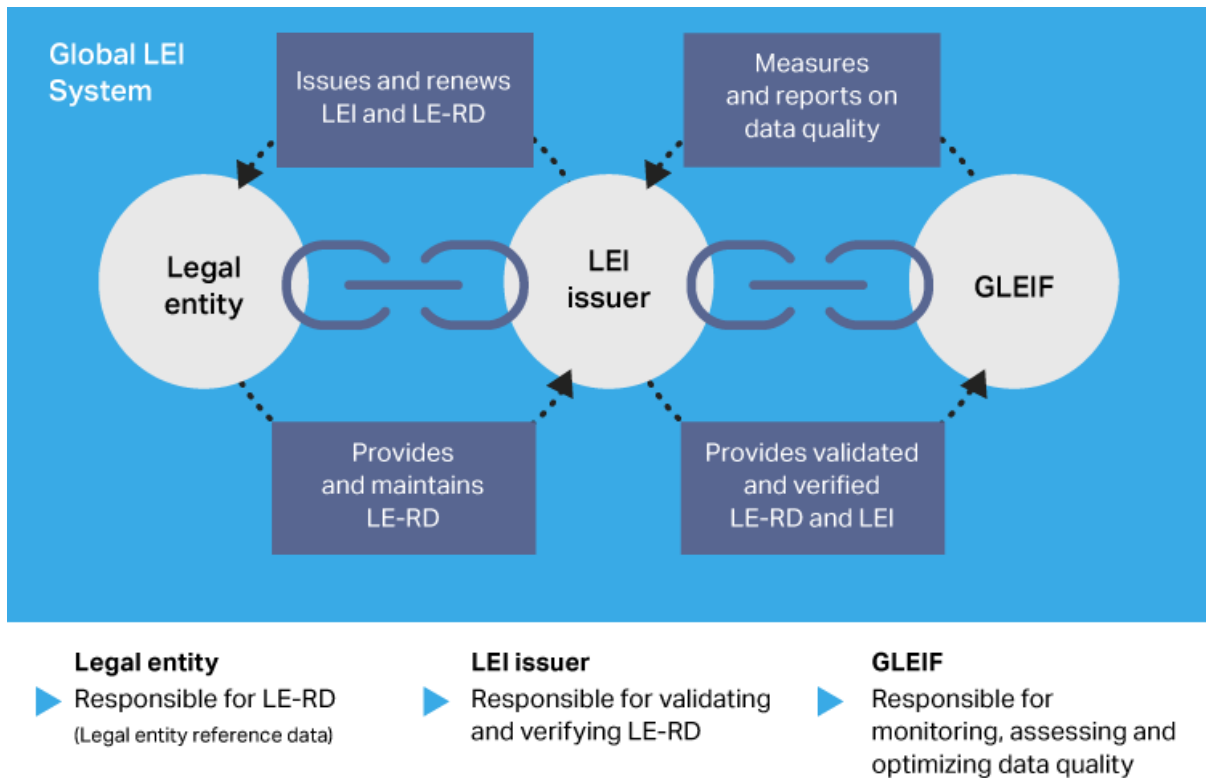
- To the extent that households at the bottom have experienced a permanent loss of income in the forms of jobs and wage cuts, this will be a recurring drag on demand, if the labour market does not heal faster.
- Second, to the extent that COVID has triggered an effective income transfer from the poor to the rich, this will be demand-impeding because the poor have a higher marginal propensity to consume (ie they tend to spend (instead of saving) a much higher proportion of their income.
- Third, if COVID-19 reduces competition or increases the inequality of incomes and opportunities, it could impinge on trend growth in developing economies by hurting productivity and tightening political economy constraints.
- Policy will, therefore, need to look beyond the next few quarters and anticipate the state of the macroeconomy post the sugar rush

#### 4.41.RBI, LEI and RTGS/NEFT

- Context: The Reserve Bank of India (RBI) has decided to introduce the Legal Entity Identifier (LEI) system for all payment transactions of value ₹50 crore and above undertaken by entities (non-individuals) using the Reserve Bank-run Centralised Payment Systems with effect from April 1.
- LEI is a 20-digit number used to uniquely identify parties to financial transactions worldwide.
- It was conceived as a key measure to improve the quality and accuracy of financial data systems for better risk management post the global financial crisis.
- In preparation for the wider introduction of LEI across all payment transactions, the RBI asked member banks participating in Real Time Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) to advise entities who undertake large value transactions (₹50 crore and above) to obtain LEI in time, if they do not already have one.
- Member banks should include remitter and beneficiary LEI information in RTGS and NEFT payment messages.
- Entities can obtain LEI from any of the Local Operating Units (LOUs) accredited by the Global Legal Entity Identifier Foundation (GLEIF), the body tasked to support the implementation and use of LEI.
- In India, LEI can be obtained from Legal Entity Identifier India Ltd. (LEIL), which is also recognised as an issuer of LEI by the Reserve Bank under the Payment and Settlement Systems Act, 2007.
- LEI has been introduced by the Reserve Bank in a phased manner for participants in the over the counter (OTC) derivative and non-derivative markets as also for large corporate borrowers.

#### 4.42.RBI to mandate risk-based internal audit for large UCBs, NBFCs

- Context: The Reserve Bank of India (RBI) has decided to bring large Urban Cooperative Banks (UCBs) and Non-Banking Finance Companies (NBFCs) within the Risk Based Internal Audit (RBIA) net.
- RBIA was mandated for commercial banks in 2002.
- This is expected to improve the quality of financial reporting of Supervised Entities.



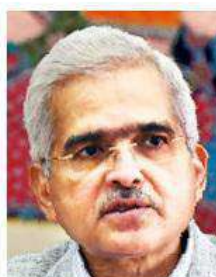
- These changes are reflected in the Monetary Policy Review statement.
- The policy contemplates harmonisation with the frame work applicable for commercial banks, which are internationally benchmarked and robust.
- Since June 2020, UCBs are brought under the supervisory power of the RBI after the collapse of PMC Bank.
- The current approach of different frame work in supervisory mechanism for commercial banks, UCBs and NBFC is not prudent from financial and regulatory perspective, and is one of the reason for governance failure or frauds noticed in UCBs and NBFCs.

## 4.43.RBI Financial Stability Report

- If the macroeconomic environment worsens into a severe stress scenario, the Gross NPA ratio may escalate to 14.8%
- The stress tests indicate that the GNPA ratio of all scheduled commercial banks (SCBs) may increase from 7.5% in September 2020 to 13.5% by September 2021 under the baseline scenario
- Among the bank groups, public sector banks' (PSBs) GNPA ratio of 9.7% in September 2020 may rise to 16.2% by September 2021 under the baseline scenario

### WARNING BELLS

- **Systemic capital-adequacy may fall to 14% in Sept 2021 from 15.6% in Sept 2020** under the baseline scenario, and to 12.5% under severe stress scenario
- **Four banks may fail to meet minimum capital level by Sept 2021 under the baseline scenario**, without factoring in any capital infusion by stakeholders.
- **In severe stress scenario**, this could rise to nine banks
- **Centre may have to fast-track** the recapitalisation of state-run banks
- **Credit by NBFCs grew by mere 4.4%**, as against 22% in 2018-19



**"STRETCHED VALUATIONS OF FINANCIAL ASSETS POSE RISKS TO FINANCIAL STABILITY. BANKS AND FINANCIAL INTERMEDIARIES NEED TO BE COGNISANT OF THESE RISKS"**

**Shaktikanta Das**, RBI governor

- These GNPA projections are indicative of the possible economic impairment latent in banks' portfolios, with implications for capital planning.

## 4.44. The North East Venture Fund (NEVF)

- The North East Venture Fund (NEVF), which is the first and the only dedicated Venture Fund for the North Eastern Region is gaining popularity among Start-Ups and young entrepreneurs.
- The Venture Fund Scheme launched by the Ministry of Development of North Eastern Region (DoNER) intended to promote growth of business ventures and skill development in the region.
- Ministry of DoNER had joined with North Eastern Development Finance Corporation Ltd (NEDFi) to set up the North East Venture Fund, the first and the only Venture Fund for Northeast with an initial corpus of Rs. 100 crores.
- The main focus of North East Venture Fund (NEVF) is for mostly the enterprises involved in Food Processing, Healthcare, Tourism, segregation of services, IT, etc.
- Ministry of North Eastern Region has started the series "Destination North East ", wherein the different facets of Northeast including the entrepreneurship avenues are replicated at different locations across the country.
- During these events also, an exclusive arrangement is made for offering counselling and assistance to potential entrepreneurs and business Start-Ups.

## 4.45. Four labour codes may get implemented ahead of schedule

- Context: The Union government indicated that it is accelerating labour reforms and looking for an early implementation of the four labour codes, and the rules to this effect will be ready by the end of January.
- The four labour codes are being seen as a big reform aimed at reducing bureaucratic hurdles, improving ease of doing business, simplifying labour laws, streamlining the definition of labour market components, and expanding social security coverage.
- At least 29 central labour laws have been merged into four broad codes on industrial relations, occupational safety and health, wages, and social security.
- The government has been holding tripartite meetings involving its officials, and employees' and employers' representatives.
- Rules are ready for wage and industrial relations codes. A committee has been formed for formulating minimum floor wages after due deliberations.
- The employer organizations, authorities said, have sought to expand the scope of gig workers and include those who are not working with any aggregator and are seeking clarity on the salary component on which Employees' Provident Fund will be calculated.

**Key Provisions**  
**LABOUR CODE ON WAGES**

Uniform minimum wage to be notified under the bill

This will be statutory: all states will have to follow

All 500 m workers will benefit; currently it is applicable to only 40% workers

Payment of wages will be exclusively via digital mode

Minimum wage no longer based on employment

It will be based on geography and skills

- The ministry said it is appointing legal consultants to study state labour legislations and ensure that all are on the same page with regard to “the new central legislations”.

## 4.46.Sugarcane

### farmers demand timely payment of FRP, SAP from mills

- Context: Even as farmers in Maharashtra and Uttar Pradesh are gearing up to agitate against mills demanding timely payment of Fair and Remunerative Price (FRP) and State Advised Price (SAP), sugar millers claimed that higher FRP and SAP leads to rising cane price payment arrears. However, farmers’ leaders refuse to accept the argument.

- Sugarcane farmers in Maharashtra have demanded that sugar mills must pay FRP in one go.
- According to the Indian Sugar Mill Association (ISMA), one of the main reasons for cane price payment arrears is high FRP set by the Centre.
- The FRP is based on the cost of production of sugarcane and an element of assured profit as to cover the risk of sugarcane farmers.
- According to ISMA, the mark up above the cost of production of sugarcane, at an all-India average basis, is as high as 100 per cent over the cost of producing sugarcane.
- The government has increased the FRP for sugarcane from October, 2020 but not the MSP of Sugar.
- The Centre increased the FRP by ₹10 to ₹285 per quintal for a basic recovery of 10 per cent for the current season.
- NITI Aayog, along with various States, have requested for a hike in the MSP to ₹33-36 per kilo, to facilitate timely payment to farmers.

### Dual pricing

- Some States including Uttar Pradesh declare SAP for sugarcane considering the cost of production and productivity levels.
- The SAP is generally higher than the FRP.
- Millers said that dual pricing is distorting sugar economy and leading to cane price arrears.

**CABINET DECISION: 19 August, 2020**

**Safeguarding the Interests of Cane Farmers**

Cabinet Approves Fair and Remunerative Price of Sugar

**BENEFITS FOR EMPLOYERS**

- Threshold for retrenchment, closure or lay-off without requiring government approval raised from 100 to 300 workers
- Inspector to now be made 'Inspector-cum-Facilitator', arguably to end inspector raj. Random, web-based inspection system to be introduced instead
- Licences, registrations to be issued online and in a stipulated time period
- Compounding (settlement) in case of various offences instead of prosecution
- Bargaining rights of workers reduced by providing for 60 days prior notice before going on strike

- High SAPs without any linkage with the output price is viable, said industry players, adding that the system of SAP must be removed and if States announce SAPs they must shoulder the price differential.

### Sugar Pricing Policy

- Price of sugar are market driven & depends on demand & supply of sugar. However, with a view to protect the interests of farmers, concept of Minimum Selling Price (MSP) of sugar has been introduced w.e.f. 07.06.2018 so that industry may get atleast the minimum cost of production of sugar, so as to enable them to clear cane price dues of farmers.
- Government exercised Essential Commodities Act, 1955, Government to notify Sugar Price (Control) Order, 2018.
- MSP of sugar has been fixed taking into account the components of Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills. Government has revised the MSP of white/refined sugar from Rs.29/kg to Rs.31/kg w.e.f. 14.02.2018.

## BENEFITS FOR EMPLOYEES/WORKERS

- Annual health check-up for workers
- Provision for accumulation of one day leave for every 20 days worked, when work done for 180 days instead of 240 days
- Issuance of appointment letter
- EPFO coverage would be applicable on all establishments having 20 workers. At present, it is applicable only on establishments included in the Schedule
- ESIC now in all 740 districts. Option for becoming member of ESIC extended to establishments with less than 10 workers
- 15 days salary for re-skilling in case of job loss. Payment to be made in 45 days from the date of retrenchment
- Fixed-term employees to be treated at par with regular employees for social security benefits like service terms, leave, gratuity, etc
- Home journey allowance once in a year for migrant workers



## 4.47. New Foreign Trade Policy will come into effect from April 1: DGFT

- The New Foreign Trade Policy will come into effect by April 1: Office of Directorate General of Foreign Trade (DGFT)
- Today, over 50-60 per cent of the imports into the country under FTAs are raw materials for the industries.
- Industry is urged to engage in trade agreements so that it can reap the benefits of incentives and leverage the opportunities.
- Automation, digitisation, innovation and branding are imperative for the industries and the industries must adopt them to thrive and grow.

## 4.48. Union cabinet clears mine reforms

- A comprehensive licence for exploration and production, clarity in illegal mining, national mineral index and joint auctions of bauxite and coal mines for the aluminium sector are some of the other proposals that have been approved by the cabinet.

## FOREIGN TRADE POLICY 2015-20

New five-year Foreign Trade Policy announced on April 1, 2015

Mid-term Review released on December 5, 2017

Two new incentive schemes introduced viz. 'Merchandise Exports from India Scheme' (MEIS) and 'Services Exports from India Scheme' (SEIS)

Incentives extended to SEZs also

Duty Credit Scrips made freely transferable

Reduced Export Obligation (EO) for domestic procurement under EPCG scheme



4/12



### Enhancing Private Investment in Mineral sector

- ➔ Introduction of seamless composite exploration-cum-mining-cum-production regime
- ➔ **500 mining blocks** to be offered through open process
- ➔ Joint auction for Bauxite and Coal mineral blocks
- ➔ Distinction between captive and non-captive mines to be removed
- ➔ Mineral index for different minerals
- ➔ Rationalisation of stamp duties payable during award of mining leases

#INDIAFIGHTSCORONA
 /COVIDNewsByMIB

Validity period of Duty Credit Scrips increased from 18 months to 24 months

New trust based Self Ratification Scheme to allow duty free inputs for export production for authorized economic operators

- These reforms will be implemented through an amendment to the Mines and Mineral (Development and Regulation) Act, 1957 for which a bill will be placed in Parliament.
- With the approval of the proposal for reforms, legacy issues related to the mines will be resolved, making a large number of mines available for auctions.
- It will help strengthen the auction-only regime and boost transparency in the system.
- It will require an amendment in the MMDR Act.
- The reforms include removing the distinction between captive and non-captive mines and introduction of an index-based mechanism by developing a National Mineral Index (NMI) for various statutory payments, among others.
- In order to boost exploration, there will be a review of the functioning of the National Mineral Exploration Trust (NMET).
- NMET will be made an autonomous body.
- Private entities will also be engaged in exploration works now.
- Simplification of exploration regime will also be done to facilitate seamless transition from exploration to production.

- Approval has also been given for amendments to be made in the District Mineral Foundation (DMF) guidelines.
- The amendments are aimed at spending DMF funds on people living in directly affected areas.
- Local Member of Parliament (MP) will be a member of the DMF Governing Council.
- Captive mines will be allowed to sell up to 50 per cent of the minerals excavated during the current year.
- Based on the experience in the coal sector, it has been proposed to provide 50 per cent rebate in the quoted revenue share for the quantity of mineral produced and dispatched earlier than scheduled date of production.
- The major objective of the reforms is to generate huge employment opportunities, reduce imports and increase production by bringing large mineral blocks into auction.

#### 4.49. Colombo Port terminal Investment

- Context: In developing a container terminal at the strategically coveted Colombo Port, 49% of the investment will come from the Adani Group and other stakeholders : Sri Lanka.
- Representatives of the Port's worker unions, have been resisting any foreign involvement in the proposed project to develop the East Container Terminal (ECT).
- While 66% of the transshipment business at the terminal is linked to India, New Delhi's strategic interest in having a presence at the Port, located along one of the world's shipping lanes, is no secret.
- In May 2019, Sri Lanka signed a Memorandum of Cooperation (MoC) with India and Japan for the project.
- The three countries agreed that the Sri Lanka Ports Authority (SLPA) would retain 100% ownership, while a jointly-owned Terminal Operations Company – 51% stake with Sri Lanka, and 49% with India and Japan – would run the terminal.
- But the new statement from Sri Lanka said after negotiations with India, it was possible to reach an agreement for SLPA to retain 51% of the ownership and the control.
- Colombo will not be resorting to any loans. It will all be investment, that is the main difference.
- Two Cabinet-appointed committees were tasked with looking into the specifics of the project and negotiating the new agreement.
- Japan too is considering the request for investments.

#### 4.50. Post COVID-19, ILO calls for national-level policy on those working from home

- Context: There is a need to develop effective policies for home-based workers and ensure their proper implementation even as the practice had increased since the novel coronavirus disease (COVID-19) pandemic: International Labour Organization (ILO) report.
- Just 10 countries had ratified the Convention on Homework nearly 25 years since it was adopted by the International Labour Conference June 20, 1996

- Few governments had a comprehensive policy for working from home in place, the report titled Working from home: From invisibility to decent work.
- As a result, those working from home, especially in low-income countries, continued to work in poor working conditions.
- Before the COVID-19 pandemic hit, there were approximately 260 million home-based workers worldwide, representing 7.9 per cent of global employment.
- Of these, 56 per cent or 147 million were women.
- The report talked about three main types of home-based workers:
  - ✓ Industrial home-based workers, who are involved in the production of goods including artisanal production, such as making of handicrafts, rolling of beedis, making of laces, etc
  - ✓ Teleworkers, who use information and communication technologies to perform their work remotely
  - ✓ Home-based digital platform workers, who are ‘crowdworkers’ that perform service-sector tasks as specified by employers or intermediaries

Despite contributing significantly to the economy, home-based working had remained “invisible”.

- It also noted that the propensity of women to work from home – 11.5 per cent – was much higher than that of men (5.6 per cent).
- The report highlighted the plight of industrial home-based workers, citing the state of 2.5 million women rolling beedis (leaf cigarettes) in India.
- These were among the “poorest workers in the world of work” and worked in pathetic and unsafe conditions.

### **ILO’s recommendations**

- Governments need to play a major role to protect home-workers. It strongly recommended them to adopt a national policy on home-based work.
- It called upon governments to develop and implement a gender-responsive legal and policy framework that provided equal treatment for all categories of home-based workers in relation to other wage earners.
- This included facilitating the transition of informal workers to formal employment.
- The home-based workers needed to be counted better to record their earnings, hours worked and other conditions of employment.
- The labour registries needed to be revised to incorporate “place of work” and count those home-based workers who went missing due to poor labour registries.
- Few countries had labour inspection schemes adapted for home-based work.
- The report called for better compliance, legal protection, occupational safety and social security for industrial home-based workers.
- It said teleworkers were at the risk of working overtime and hence recommended the “right to disconnect” on their behalf.



## 4.51. Businesses can deploy CSR funds for awareness around Covid

- Context: Businesses can use their corporate social responsibility (CSR) funds to create awareness about covid-19 but cannot use such funds exclusively on activities that benefit employees and family: GOI.
- Spending CSR funds for carrying out "awareness campaigns/programmes or public outreach campaigns on covid-19 vaccination programme is an eligible CSR activity" under provisions of law: The ministry of corporate affairs.
- Such spending will be considered under the Companies Act provisions allowing CSR expenditure towards promotion of healthcare including preventive healthcare and sanitation, promoting education and disaster management
- However, these activities have to be undertaken as per the Companies (CSR policy) Rules of 2014 and related orders.
- These rules do not recognize activities that benefit only employees and their family members as CSR activities.
- This prevents businesses from using their CSR funds for vaccination of employees and family.
- Companies with net worth of ₹500 crore or more, or turnover of ₹1,000 crore or more, or net profit of ₹5 crore-plus, are required to spend 2% of their average net profit of the preceding three years on CSR activities.
- The ministry had revised the CSR rules to align these with the requirements for fighting covid-19, allowing life sciences companies to spend CSR funds for finding therapies.
- The restriction on life sciences firms spending CSR funds in activities which are part of their normal course of business was lifted last August.
- Also, donations to the Prime Minister's emergency fund to fight the pandemic was made eligible for CSR spending.
- However, for contribution to state agencies, only donations to the State Disaster Management Authority qualifies as CSR spending, not contributions to the chief minister's relief fund.

## 4.52. Bad bank

- Context: The idea of setting up a bad bank to resolve the growing problem of non-performing assets (NPAs), or loans on which borrowers have defaulted, is back on the table.
- With commercial banks set to witness a spike in NPAs, or bad loans, in the wake of the contraction in the economy as a result of the Covid-19 pandemic, Reserve Bank of India (RBI) Governor recently agreed to look at the proposal for the creation of a bad bank.

### What's a bad bank and how does it work?

- A bad bank conveys the impression that it will function as a bank but has bad assets to start with.
- Technically, a bad bank is an asset reconstruction company (ARC) or an asset management company that takes over the bad loans of commercial banks, manages them and finally recovers the money over a period of time.

- The bad bank is not involved in lending and taking deposits, but helps commercial banks clean up their balance sheets and resolve bad loans.
- The takeover of bad loans is normally below the book value of the loan and the bad bank tries to recover as much as possible subsequently.
- Former RBI Governor Raghuram Rajan had opposed the idea of setting up a bad bank in which banks hold a majority stake.
- US-based Mellon Bank created the first bad bank in 1988, after which the concept has been implemented in other countries including Sweden, Finland, France and Germany.
- However, resolution agencies or ARCs set up as banks, which originate or guarantee lending, have ended up turning into reckless lenders in some countries.

### Do we need a bad bank?

- The RBI had then initiated an asset quality review (AQR) of banks and found that several banks had suppressed or hidden bad loans to show a healthy balance sheet.
- However, the idea remained on paper amid lack of consensus on the efficacy of such an institution.
- ARCs have not made any impact in resolving bad loans due to many procedural issues.
- Now, with the pandemic hitting the banking sector, the RBI fears a spike in bad loans in the wake of a six-month moratorium it has announced to tackle the economic slowdown.

## TIME TO ACT TOUGH

### Areas of concern

- Loans worth Rs 3.03 lakh crore to large industries have been classified as bad loans
- Govt has identified five sectors that need to be tackled — infrastructure, power, road, textiles and steel

### Bad loans of large industries

Year	Amount*	NPA**
2014	99,475	4.8%
2015	1,27,305	5.64%
2016	3,03,898	11.75%

\* in Rs crore; \*\* as % of total loan



### The proposal

- Bad Bank to buy these loans at a discount from banks and either recover money from the promoters or use Sarfesi and bankruptcy acts to sell them or their assets

### The problem

- Banks selling dodgy loans to take huge haircuts, which will hit their profitability

### What is the stand of the RBI and government on a bad bank?

- While the RBI did not show much enthusiasm about a bad bank all these years, there are signs that it can look at the idea now.
- In recent months, the Finance Ministry too has been receptive to the idea.
- A former RBI Deputy Governor, had said it would be better to limit the objective of these asset management companies to the orderly resolution of stressed assets, followed by a graceful exit.
- There are two models to solve the problem of stressed assets.
- The first is a private asset management company (PAMC), which is said to be suitable for stressed sectors where the assets are likely to have an economic value in the short run, with moderate levels of debt forgiveness.
- The second model is the National Asset Management Company (NAMC), which would be necessary for sectors where the problem is not just one of excess capacity but possibly also of economically unviable assets in the short to medium terms.

## Will a bad bank solve the problem of NPAs?

- Because of Covid related disruptions, NPAs may rise rapidly.
- The bad bank concept is in some ways similar to an ARC but is funded by the government initially, with banks and other investors co-investing in due course.
- The presence of the government is seen as a means to speed up the clean-up process.
- Many other countries had set up institutional mechanisms such as the Troubled Asset Relief Programme (TARP) in the US to deal with a problem of stress in the financial system.

## Has the banking system made any proposal?

- The banking sector, led by the Indian Banks' Association, had submitted a proposal last May for setting up a bad bank to resolve the NPA problem, proposing equity contribution from the government and banks.
- The proposal was also discussed at the Financial Stability and Development Council (FSDC) meeting, but it did not find favour with the government which preferred a market-led resolution process.
- The banking industry's proposal was based on an idea proposed by a panel on faster resolution of stressed assets in public sector banks headed by former Punjab National Bank Chairman
- This panel had proposed a company, Sashakt India Asset Management, for resolving large bad loans two years ago.
- Somehow people had that feeling that banks will park all their bad assets and nothing will happen there.
- The idea of a bad bank was discussed in 2018 too, but it never took shape.
- During the pandemic, banks and India Inc were also pitching for one-time restructuring of loans and NPA reclassification norms from 90 days to 180 days as relief measures to tackle the impact of the lockdown and the slowdown in the economy
- Currently, loans in which the borrower fails to pay principal and/or interest charges within 90 days are classified as NPAs and provisioning is made accordingly.

## 4.53.SBI executes money market deals linked to SOFR

- Context: State Bank of India (SBI), said it has executed two inter-bank short-term money market deals through its Hong Kong branch with the pricing linked to SOFR (Secured Overnight Financing Rate).
- SOFR is an identified replacement for USD (US Dollar) LIBOR (London InterBank Offered Rate), which is expected to be phased out at the end of 2021.
- The sunset for LIBOR has been triggered by the decision of the Financial Conduct Authority (FCA) in UK not to compel contributing banks for LIBOR calculation after December 2021, India's largest bank said in a statement.
- The transaction demonstrates SBI's progress in aligning its systems and processes to embrace Alternate Reference Rates (ARRs).

- LIBOR Transition is a significant financial event for international financial markets, and these transactions by country's largest bank, will set the pace for smooth transition of financial markets in ARR
- According to FCA, LIBOR is based on submissions provided by a panel of 20 banks.
- These submissions are intended to reflect the interest rate at which banks could borrow money on unsecured terms in wholesale markets.
- Both the FCA and the Bank of England's Financial Policy Committee (FPC) noted in 2017 that it had become increasingly apparent that the absence of active underlying markets and the scarcity of term unsecured deposit transactions raised serious questions about the future sustainability of the LIBOR benchmarks
- The Council on Foreign Affairs, observed that beginning in 2012, an international investigation into LIBOR revealed a widespread plot by multiple banks to manipulate these interest rates for profit starting as far back as 2003.

**Augmenting Freight Transportation**  
**RAILWAYS IRON-ORE POLICY 2021**  
**ROLLED OUT TO PROPEL IRON & STEEL INDUSTRY**

- Meet Complete Transportation Requirements
- Provide Logistics Support
- Enhance Ease of Doing Business
- Boost Economic Growth

#MoveItLikeRailways

Do look up SONIA (Sterling Overnight Index Average).

## 4.54. Ministry of Railways and new iron ore policy

- Context: A new iron-ore policy governing allocation of rakes and transportation of iron-ore has been issued on date by Indian Railways.
- The policy sets down clear guidelines on how to fully meet the requirement of customers by leveraging infrastructure facilities available at loading and unloading ends to the fullest.
- Production of steel is critically dependent on transportation of iron and other raw materials.
- The new policy has been named as 'Iron-ore Policy 2021' and shall come into effect from 10.02.2021.
- The provisions of the new policy will be updated in the Rake Allotment System module by CRIS.

### Important highlights of the new policy are

- Old and new plants will be treated similarly as far as allotment/loading of rakes is concerned.
- Categorization of Priority of movement of Iron Ore has now been based on the availability of Railway infrastructure developed by the customer such as loading/unloading.

- The priority preferences for the customers will be self-generated by the system (Rake allotment scheme) based on customer profile (name of manufacture, consignor name, consignee name, siding/PFT name and code) fed in the system by the concerning zone.
- Higher priority given to movement of iron-ore traffic for domestic manufacturing activity.
- Iron-ore is the second most important stream of traffic of Railways and along with steel accounts for nearly 17% (53.81 Million Tonne of Steel & 153.35 Million Tonne of Iron ore) of total 1210 Million Tonne freight loading of IR in 2019-20.

**Augmenting Freight Transportation**  
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#MoveItLikeRailways

### 4.55.Govt plans to end iron ore leases of mines that didn't start output after 7-8 months of auction

- Context: The mines ministry has made a proposal to terminate the iron ore leases of those working mines that have not started production even after lapse of 7-8 months of auction and have not maintained minimum dispatch for three consecutive quarters.
- The mines ministry proposed to do so through the amendment of certain mining rules and has invited comments from the stakeholders on the same.
- The Ministry of Mines has prepared the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession (Amendment) Rules, 2021, seeking to amend the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016
- It is proposed to strengthen the norms of minimum production/dispatch through amendment of MCR Rules, 1960, in order to ensure sustained supply of mineral in the market in future
- Decline in production and dispatch of important mineral such as iron ore not only leads to spike in its market prices but also adversely affects the manufacturing of iron and steel in the country.
- Non-operationalisation of these mines has created an acute shortage of iron ore in the country, the mines ministry said.



## HOW HAS THE MODI GOVT FARED ON THE FISCAL FRONT

### Fiscal Deficit (as percentage of GDP)

2014-15 Budgeted	2014-15 Actual	2015-16 Budgeted	2015-16 Actual	2016-17 Budgeted	2016-17 Actual	2017-18 Budgeted	2017-18 Actual	2018-19 Budgeted	2018-19 Actual	2019-20 Budgeted	2019-20 Revised	2020-21 Budgeted
4.1	4	3.9	3.9	3.5	3.5	3.2	3.5	3.3	3.4	3.3	3.8	3.5

Source: [indiabudget.nic.in](http://indiabudget.nic.in)



- stipulates a minimum number of independent directors in boards of each bank
- Bring down the government's stake in banks to below 50 per cent
  - Need for wide-ranging human resource policy changes to bring younger people in top management
  - Redesign the existing process of vigilance enforcement

## 4.56. Centre mulls BIC model for bank recap

- Context: With the RBI raising concerns over the issuance of zero-coupon bonds for recapitalisation of public sector banks (PSBs), the Finance Ministry is examining other avenues for affordable capital infusion, including setting up of a Bank Investment Company (BIC).
- Setting up a BIC as a holding company or a core investment company was suggested by the P.J. Nayak Committee in its report on 'Governance of Boards of Banks in India'.

### BANKING REFORMS

A bid to cross the bad debt mountain

**MEASURE | IMPACT**

- Formation of monetary policy committee
- To increase transparency and accountability of framing monetary policy
- Rs 25,000 crore capital infusion in public sector banks

- The amount seems inadequate given public banks have seen surge in bad loans. Will face challenge in raising capital.
- Bank Board Bureau to be operational, roadmap for consolidation for public sector banks
- Significant move to reform public sector banks. When BBB becomes operational,

government will not be involved in the top management and board level appointment. Consolidation will lead to banks with bigger balancesheet which is required to finance the large infrastructure.

- Paring stake in IDBI Bank below 50%
- Cutting down stake in IDBI Bank

below 50% will mean the bank is at par with private banks which could increase its efficiency

- 100% FDI in asset reconstruction companies through automatic route
- More players will come in. This is required to absorb the surge in badloans

- Listing of general insurance companies
- To bring in transparency, accountability and forward looking approach through IPO

- The report recommended transferring shares of the government in the banks to the BIC which would become the parent holding company of all these banks; as a result of this, all the PSBs would become 'limited' banks.

## 4.57. Govt to overhaul fiscal roadmap and budget deficit

- Context: The COVID-19 pandemic is set to change the central government's medium term-fiscal roadmap. From an expected fiscal deficit of 7-8 per cent of gross domestic product in 2020-21, the Centre may follow a glide path which will bring down the budget deficit to 4 per cent of GDP by 2025-26.
- This means that the long-standing medium-term fiscal deficit target of 3 per cent of GDP, as mandated by the Fiscal Responsibility and Budget Management Act, no longer holds.
- The above-mentioned changes will require amendments to the FRBM Act through the Finance Bill, 2021.
- Though the FRBM Act came into being in 2003, the medium target has never been met
- Fiscal deficit or budget deficit is the difference between a government's expenditure and revenues.
- When revenue is higher, the budget is seen as fiscal surplus.
- Fiscal deficit is measured as a percentage of real GDP and is the most important measure of the health of a government's balance sheet.
- It is tracked keenly by investment banks, economists markets, rating agencies and sovereign bond investors.
- It is understood that a relaxed fiscal roadmap for the Centre in light of the pandemic has been suggested by the Fifteenth Finance Commission.

## 4.58. Domestic Systemically Important Banks

- Context: The Reserve Bank of India (RBI) said that SBI, ICICI Bank, and HDFC Bank continue to be identified as Domestic Systemically Important Banks (D-SIBs).
- These banks are considered 'too big to fail banks', a phrase used for entities that are systemically important and a collapse of these will be disastrous for the economy.
- The D-SIB framework requires the Reserve Bank to disclose the names of banks designated as D-SIBs starting from 2015 and place these banks in appropriate buckets depending upon their Systemic Importance Scores (SISs).
- Based on the bucket in which a D-SIB is placed, an additional common equity requirement has to be applied to it.
- RBI has said that these banks have been identified as D-SIBs under the same bucketing structure as in the 2018 list of D-SIBs.

- The additional Common Equity Tier 1 (CET1) requirement for D-SIBs was phased-in from April 1, 2016 and became fully effective from April 1, 2019.
- The additional CET1 requirement will be in addition to the capital conservation buffer.
- This announcement by RBI is based on the the Framework for dealing with D-SIBs that was announced on July 22, 2014.

## 4.59. India's m-cap to GDP ratio crosses 100% for first time in over a decade

- Context: The combined market capitalisation of all listed companies in India has crossed the country's GDP for the first time in more than 10 years.
- This happened last in September 2010, when the market capitalisation to GDP ratio was 100.7 per cent.
- The current ratio is, however, much lower than the all-time high of 149.4 per cent in December 2007.
- While this ratio is more than 100 per cent for developed markets such as the US, the UK, Japan, France, Hong Kong, Canada, Australia, and Switzerland, it is less than 100 per cent for Germany.
- India has one the highest market cap to GDP ratios among the emerging markets.

## 4.60. RBI proposes 4-tier structure for tighter regulation of NBFCs

- Context: The Reserve Bank of India (RBI) has proposed a tighter regulatory framework for non-banking financial companies (NBFCs) by creating a four-tier structure with a progressive increase in intensity of regulation.

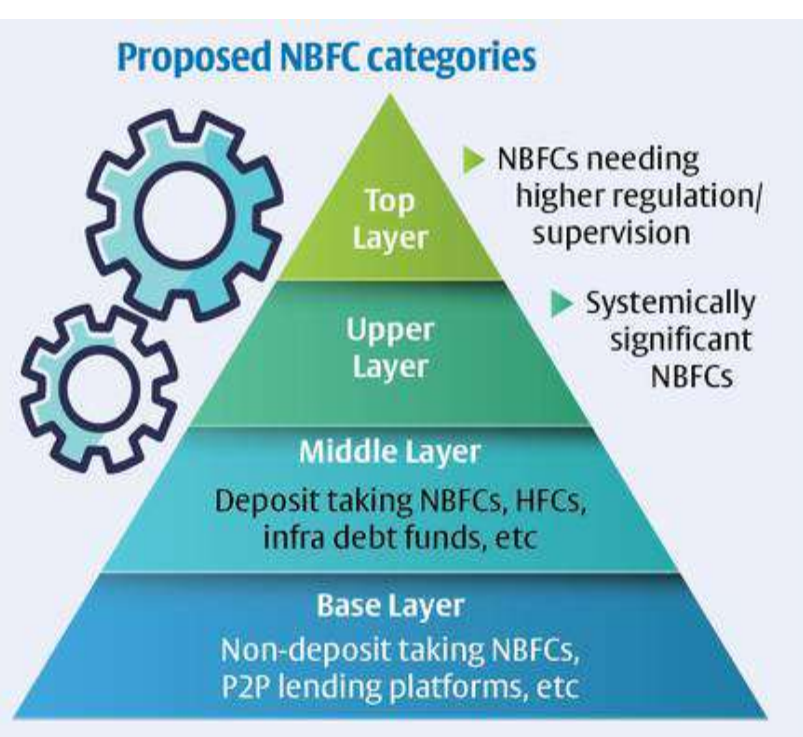
- RBI has said the regulatory and supervisory framework of NBFCs should be based on a four-layered structure: Base Layer, Middle Layer, Upper Layer and a possible Top Layer.

- It has also proposed classification of non-performing assets (NPAs) of base layer NBFCs from 180 days to 90 days overdue.

- NBFCs in the Upper Layer will be known as NBFC-Upper Layer (NBFC-UL) and will invite a new regulatory superstructure.

- There is also a Top Layer, ideally supposed to be empty.

- Once an NBFC is identified as NBFC-UL, it will be subject to enhanced regulatory requirement at least for four years.





- **Base Layer:** If the framework is visualised as a pyramid, the bottom of the pyramid, where least regulatory intervention is warranted, can consist of NBFCs, currently classified as non-systemically important NBFCs (NBFC-ND), NBFCP2P lending platforms, NBFCAA, NOFHC and Type I NBFCs.
- **Middle Layer:** As one moves up, the next layer can consist of NBFCs currently classified as systemically important NBFCs (NBFC-ND-SI), deposit taking NBFCs (NBFC-D), housing finance companies, IFCs, IDFs, SPDs and core investment companies. The regulatory regime for this layer will be stricter compared to the base layer. Adverse regulatory arbitrage vis-à-vis banks can be addressed for NBFCs falling in this layer in order to reduce systemic risk spill-overs, where required
- **Upper Layer:** Going further, the next layer can consist of NBFCs which are identified as systemically significant among. This layer will be populated by NBFCs which have large potential of systemic spill-over of risks and have the ability to impact financial stability. There is no parallel for this layer at present, as this will be a new layer for regulation. The regulatory framework for NBFCs falling in this layer will be bank-like, albeit with suitable and appropriate modifications.
- **TOP LAYER:** It is possible that considered supervisory judgment might push some NBFCs from out of the upper layer of the systemically significant NBFCs for higher regulation/supervision. These NBFCs will occupy the top of the upper layer as a distinct set. Ideally, this top layer of the pyramid will remain empty unless supervisors take a view on specific NBFCs. In other words, if certain NBFCs lying in the upper layer are seen to pose extreme risks as per supervisory judgement, they can be put to higher and bespoke regulatory/supervisory requirements, it said.

## 4.61. Govt overhauls corporate social responsibility rules

- **Context:** The Corporate Affairs Ministry has amended the rules for Corporate Social Responsibility (CSR) expenditure by India Inc to allow companies to undertake multi-year projects, and also require that all CSR implementing agencies be registered with the government.
- All companies with a net worth of Rs 500 crore or more, a turnover of Rs 1,000 crore or more, or net profit of Rs 5 crore or more, are required to spend 2 per cent of their average profits of the previous three years on CSR activities every year.

### What are the changes required for implementing agencies?

- A large number of companies conduct CSR expenditure through implementing agencies, but the new amendment restricts companies from authorising either a Section 8 company or a registered public charitable trust to conduct CSR projects on their behalf.
- A Section 8 company is a company registered with the purpose of promoting charitable causes, applies profits to promoting its objectives and is prohibited from distributing dividends to shareholders.
- Further, all such entities will have to be registered with the government by April 1.
- The change would impact CSR programmes of a number of large Indian companies that conduct projects through private trusts.
- The change would mean such private trusts would either have to be converted to registered public trusts, or stop acting as CSR implementing agencies “given that a sizeable amount of CSR is being contributed through their private trusts by many companies, including blue-chip companies.

## Other key changes

- The amended rules require that any corporation with a CSR obligation of Rs 10 crore or more for the three preceding financial years would be required to hire an independent agency to conduct impact assessment of all of their project with outlays of Rs 1 crore or more.
- Companies will be allowed to count 5 per cent of the CSR expenditure for the year up to Rs 50 lakh on impact assessment towards CSR expenditure.

## 5. Environment

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)
- [Video 4](#)
- [Video 5](#)

### 5.1. First rescue and rehabilitation centre for monkeys in Telangana.

- The first rescue and rehabilitation center for monkeys was recently launched in Telangana's northern district of Nirmal.
- The forest department has set up a campus in Chincholi village for housing up to 200 monkeys for a period of 10 to 15 days, after which they will be released in forest areas.
- Monkeys captured by Gram Panchayat will be sterilized and housed at the campus and later released in interior forest areas identified by the department.
- Adult female monkeys will undergo sterilization by laparoscopy and vasectomy will be taken up on adult male monkeys.
- That apart, they will be vaccinated and checked for diseases, if any.
- Nearly 50 percent of monkeys in the wild are found to have tuberculosis.
- The treatment will be ensured and only disease-free monkeys will be released in the wild.
- The department has spent Rs 2.25 crore in setting up the center, which is only the second such facility in the country after one presently available in Himachal Pradesh.
- It was in May 2016 that the Forest department issued orders sanctioning the setting up of a rescue and rehabilitation center for monkeys.
- In Feb 2019, Monkeys were declared vermin in Himachal Pradesh because the animals were adversely affecting crops and causing harm to humans.
- Declaring animals as vermin
  - ✓ Wildlife laws divide species into 'schedules' ranked from I to V. Schedule I members are the best protected, in theory, with severe punishments meted out to those who hunt them. Wild boars, nilgai and rhesus monkeys are Schedule II and III members – also
  - ✓ protected, but can be hunted under specific conditions. Crows and fruit bat fall in Schedule 5, the vermin category.

- ✓ Section 11(1)a of the Wildlife Protection Act (WPA) authorizes chief wildlife warden to permit hunting of any problem wild animal only if it cannot be captured, tranquillized or translocated.
- ✓ For wild animals in Schedule II, III or IV, chief wildlife warden or authorized officers can permit their hunting in a specified area if they have become dangerous to humans or property (including standing crops on any land).
- ✓ Section 62 of Act empowers Centre to declare wild animals other than Schedule I & II to be vermin for specified area and period.

## 5.2. Leopard population

- Context: The population of leopard in India has increased by 60 per cent, according to a report released by the government.
- The 'Status of Leopard in India 2018' report, released by Union environment minister said that India now has 12,852 leopards.



**EAT**

- True carnivores that are excellent ambush predators
- Feed on anything they can overpower, from mid-size ungulates, to domestic livestock, dogs, birds, and rodents

**ACTIVITY**

- Mostly solitary, nocturnal creatures, also seen at dusk and dawn in forests. Entirely nocturnal close to human presence
- Territorial.
- Leopard densities can reach 5 animals per 100 sq km in densely populated human landscapes like western India

**BLACK PANTHER**

- Dark morphs or black leopards, often called black panthers, are the same species, but with recessive melanistic genes
- Spots are hidden under the dark coat

PANTHERA PARDUS FUSCA

# INDIAN LEOPARD

Highly adaptable big cat can live close to humans

<b>POPULATION</b> around 7,910 (2014 census in surveyed areas); thought to be around 12,000-14,000 across India	<b>WEIGHT</b> 50-77 kg (males); 29-34 kg (females)	<b>GEOGRAPHIC RANGE</b> Indian subcontinent (all states), Nepal, Pakistan, Bangladesh, Bhutan, Myanmar, China	<b>HABITAT</b> Forest, shrubland, savanna, grassland, rocky areas, mountains, desert
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Large head, powerful jaws

Have an easily recognisable sawing/rasping call

Coats have black rosettes

Each coat pattern is unique and makes individuals identifiable



**CUBS**

- Females usually give birth to two cubs after a gestation period of 90-105 days
- Only the female cares for the cubs, who remain with the mother for about 1.5-2 years



**AGILE CAT**

- Excellent at climbing trees
- Can run down a tree head-first
- Can carry large prey up a tree to protect it from other carnivores including tigers and wild dogs

**THREATS**

- A TRAFFIC study reports that between 2001-2010 at least 2 leopards were killed each week for the illegal wildlife trade in India
- Population has declined by 75-90% in the last two centuries
- Poisoning and retaliatory killing
- Poaching for pelts and body parts.
- Become roadkill when roads and highways run through forests
- Conflict with livestock herders
- Hunting

**PROTECTION STATUS:**  
VULNERABLE on the IUCN Red List

- More than 60 per cent increase in population has been recorded over the previous estimate which was conducted in 2014.
- States which have the highest number of leopards are MP(3,421), Karnataka(1783) and Maharashtra(1690) who have recorded the highest leopard estimates.
- Leopards are among the most adaptable carnivores, and are known to exist very close to human habitations.
- A study earlier this year had found four distinct sub-populations of leopards in India with high genetic variations - leopards of the Western Ghats, the Deccan Plateau semi-arid region, the Shivalik mountains, and the Terai region in North India.

### 5.3.IFFCO gas leak

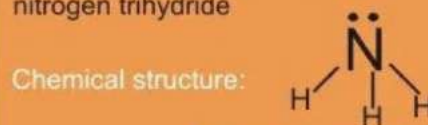
- Context: Two persons died and several took ill in a major ammonia gas leakage at the Indian Farmers Fertilizer Cooperative Limited (IFFCO) unit at Prayagraj. The victims had come in contact with the concentrated form of ammonia gas that leaked heavily from the plant.
- Ammonia is a building block for ammonium nitrate ( $\text{NH}_4\text{NO}_3$ ) that is used in agriculture as a high-nitrogen fertiliser.
- Ammonia is stored for industrial use in liquid form under high pressure or in gaseous form at low temperature, as was the case in the IFFCO unit where the accident took place.

#### How ammonia gas affects the human body

- Ammonia, even in moderate concentration, can cause irritation to eyes, skin, nose and throat.
- Ammonia interacts immediately upon contact with moisture present in the skin, eyes, oral cavity, respiratory tract to form ammonium hydroxide, which is very caustic and disrupts the cell membrane lipids, ultimately leading to cellular destruction.
- As cell proteins break down, water is extracted, resulting in an inflammatory response that causes further damage
- Ammonia, is highly soluble in water, is found in soil, air, and water; it is naturally present in the body and secreted by the kidneys to neutralise excess acid.
- However, it is highly diluted when in the environment and does not affect the human body to a noticeable level.
- The gas is toxic and affects the lungs with a possibility of causing chemical pneumonitis – inflammation of the lung caused by aspirating or inhaling irritants.
- Instead of oxygen the person starts inhaling ammonia, causing oxygen deficiency.

## Ammonia

Other names: trihydridonitrogen  
nitrogen trihydride



Trigonal pyramidal shape

Chemical formula:  $\text{NH}_3$

Molar mass: 17.03 g/mol

### Ammonia Properties

Physical properties:

- Colorless gas with a sharp, penetrating odor
- Boiling point of  $-33.35\text{ }^\circ\text{C}$
- Freezing point of  $-77.7\text{ }^\circ\text{C}$
- It is very soluble in water
- It is less dense than air, v.d.of 8.5
- It is alkaline in nature

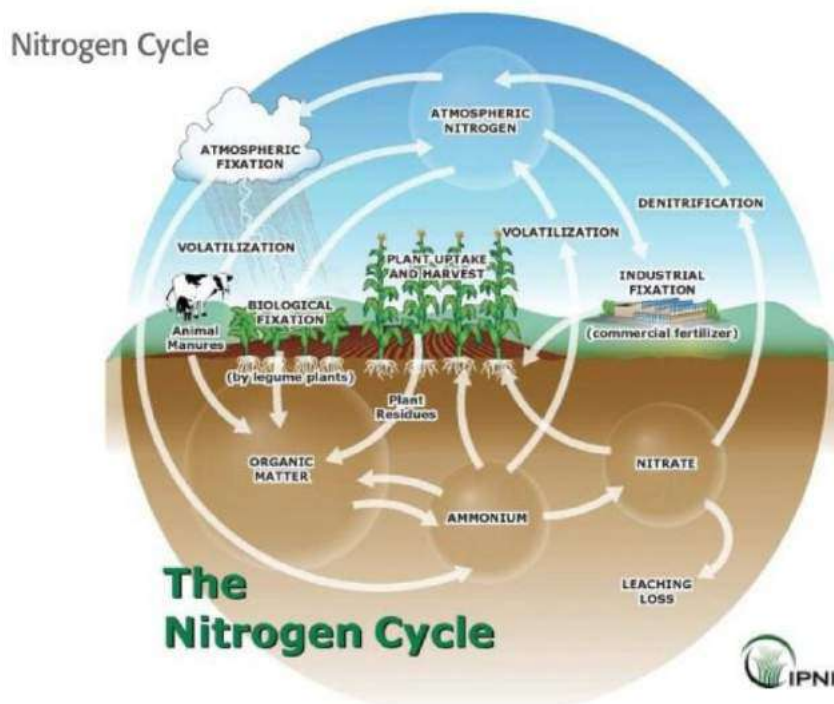
Chemical properties:

- Ammonia is a base but not a strong one
- It combines with different acids to form ammonium salts
- Easily dissolves in water to form aqueous ammonia solution, also known as ammonium hydroxide ( $\text{NH}_4\text{OH}$ )

- In such cases, the cause of death is always suffocation

### What are main uses of ammonia?

- Ammonia is critical in the manufacturing of fertilizers, and is one of the largest-volume synthetic chemicals produced in the world.
- More than 80 per cent of ammonia made is consumed in the manufacturing of fertilizer, and most of the remainder goes into the production of formaldehyde.

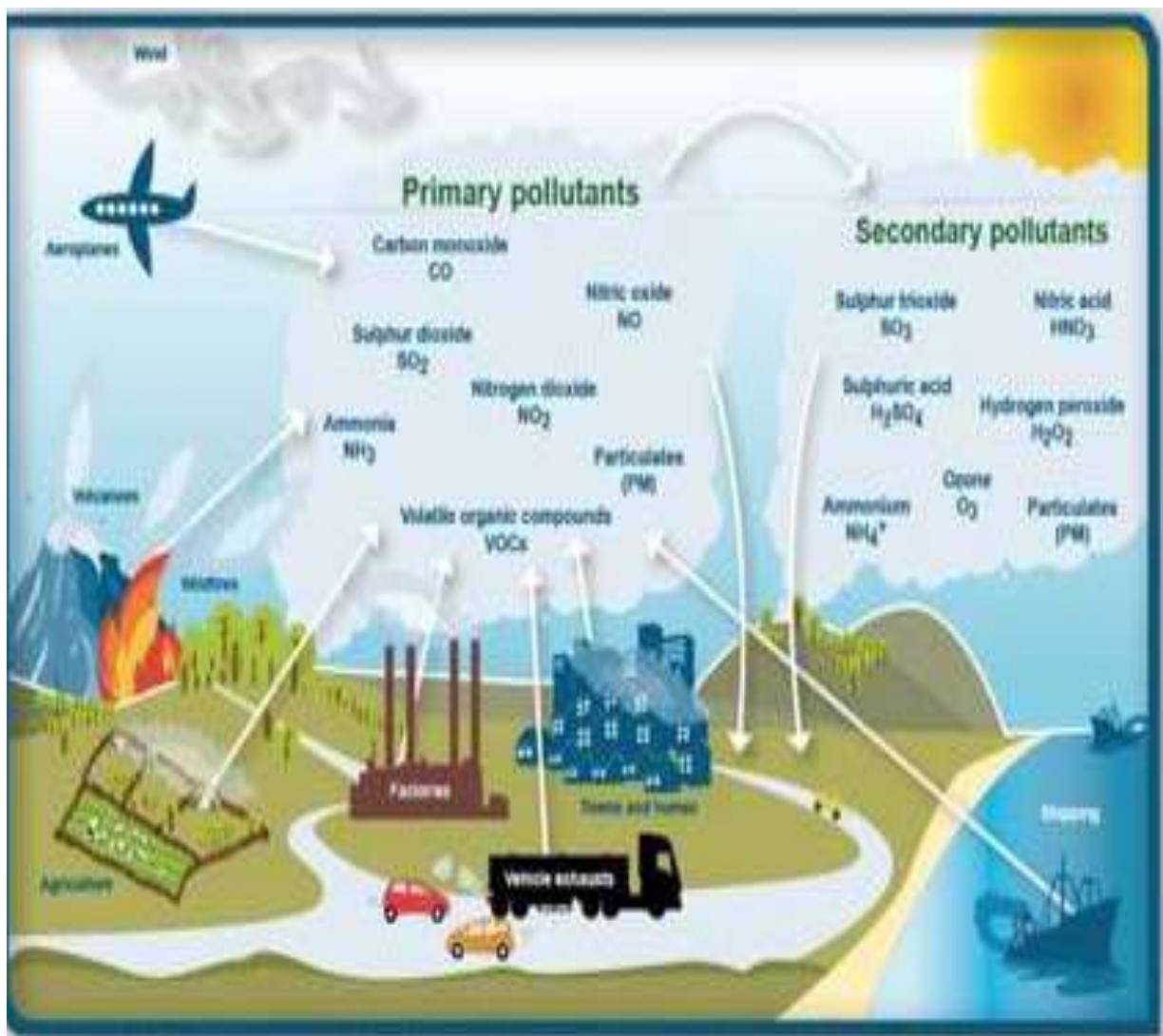


## 5.4. Air pollution killed 1.7 million Indians in 2019: Lancet report

- Context: 1.7 million Indians died due to air pollution in 2019, according to a report by interdisciplinary journal Lancet Planetary Health.
- The report 'The India State-Level Disease Burden Initiative' estimates health and economic impacts of air pollution, both from indoor and outdoor sources.
- The toll in India was 18 per cent of the total deaths in the country
- Indoor, or household, air pollution caused 64 per cent fewer deaths in the last two decades (1990-2019), according to the report.
- Outdoor air pollution, or ambient air pollution, is not only increasing but also killing more. The death rate from outdoor ambient air pollution has increased during this period by 115 per cent.
- India has lost 1.4 per cent of GDP due to premature deaths and morbidity from air pollution.
- It is equivalent to Rs 2,60,000 crore in monetary term – more than four times of the allocation for healthcare in the Union budget for 2020-21.
- Lung diseases caused by air pollution accounted for the highest share – 36.6 per cent – in the total economic losses.

## According to the study

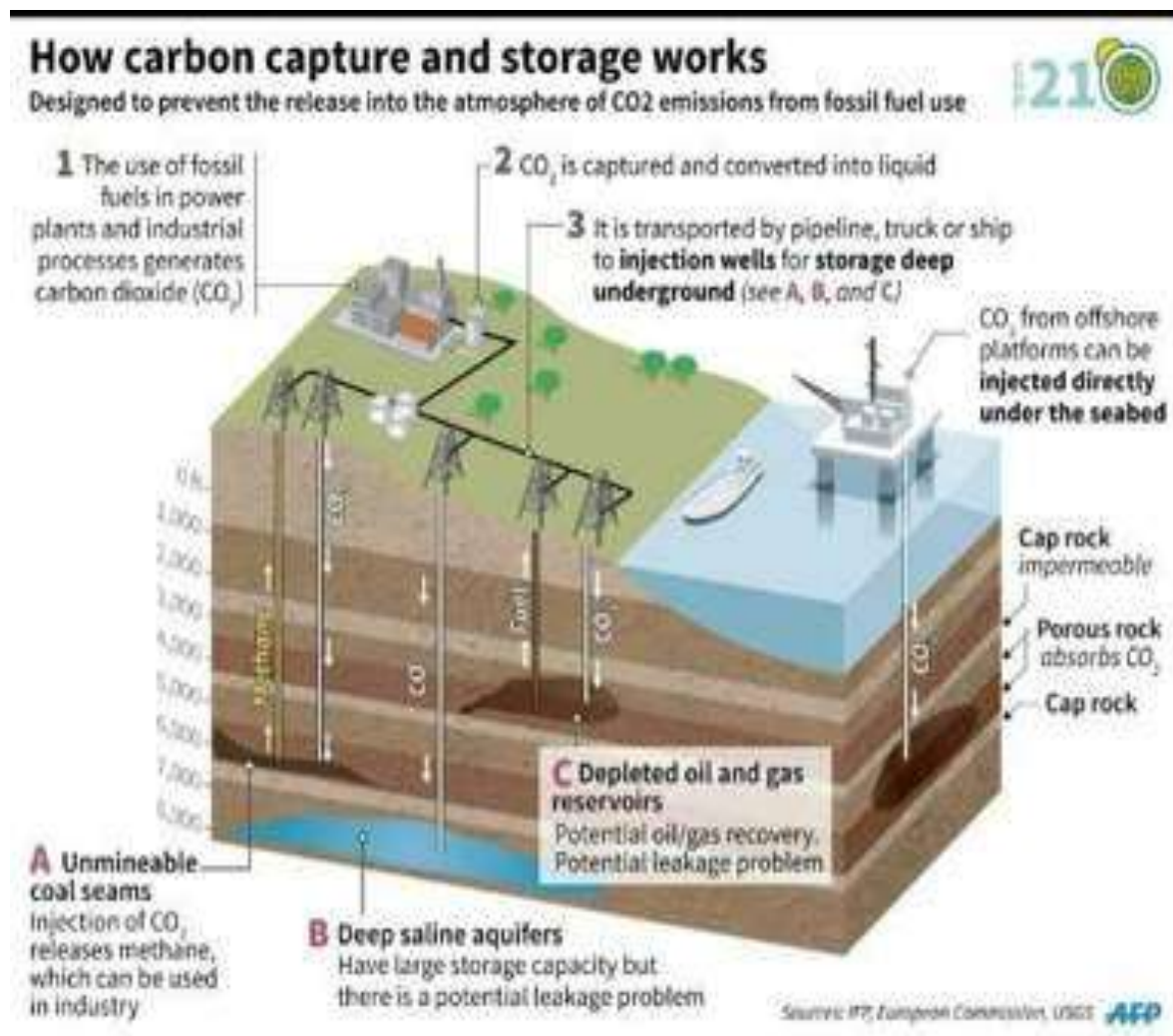
- The economic loss due to air pollution as a percentage of the state GDP was higher in the northern and central India states, with the highest in Uttar Pradesh (2.2 per cent of GDP) and Bihar (2 per cent of GDP).
- Delhi had the highest per-capita economic loss due to air pollution, followed by Haryana in 2019.
- The economic loss due to lost output from premature deaths and morbidity attributable to ambient particulate matter pollution ranged from \$9.5 million in the small northeastern state of Arunachal Pradesh to \$3188.4 million in the northern state of Uttar Pradesh.
- In term of economic losses attributable to indoor air pollution ranged, Goa had the least loss at \$7.6 million and UP the highest at \$1829.6 million.
- The economic loss due to lost output from premature deaths attributable to ambient ozone pollution ranged from \$0.4 million in the small northeastern state of Nagaland to \$286.2 million in Uttar Pradesh.
- Various government schemes such as the Pradhan Mantri Ujjwala Yojana and the Unnat Chulha Abhiyan have aided in reducing household air pollution in India, the benefits of which are suggested in the reducing death rate.



## 5.5. Carbon capture technology not on track to reduce CO<sub>2</sub> emissions

- Context: Global progress on the development of carbon capture and storage (CCS) technology from 2010-2020 was not on track to
- effectively control greenhouse gas (GHG) emissions and achieve net zero emissions to keep global warming below 1.5 degrees Celsius by 2050.
- CCS technology's target to restrict global warming to 2°C aims to capture 400 million tonnes of carbon dioxide (CO<sub>2</sub>) emissions a year by 2025, but it is unlikely to be met, according to a report by International Energy Agency (IEA).

### What is carbon capture utilisation and storage (CCUS)?



- CCUS technology is designed to capture CO<sub>2</sub> emissions from combustion of fossil fuels.
- It can absorb 85-95 per cent of CO<sub>2</sub> emissions in the atmosphere.
- The process starts with the capture of generated CO<sub>2</sub>, which undergoes a compression process to form a dense fluid.

This eases the transport and storage of the captured CO<sub>2</sub>.



- The dense fluid is transported via pipelines and then injected into an underground storage facility.
- Captured CO<sub>2</sub> can also be used as a raw material in other industrial processes such as bicarbonates.

### Why is CCS crucial

- The United Nations Intergovernmental Panel on Climate Change's (IPCC) Special Report on Global Warming presents four scenarios for limiting global temperature rise to 1.5 degrees Celsius: All require CO<sub>2</sub> removal and three involve major use of CCS.
- The cement, iron and steel and chemical sectors emit carbon due to the nature of their industrial processes and high-temperature requirements.
- They are among the hardest to decarbonise. CCS can facilitate a just transition by allowing industries to make sustained contributions to local economies while moving toward net-zero.
- Enabling the production of low-carbon hydrogen at scale coal or natural gas with CCS is the cheapest way to produce low-carbon hydrogen.

### Global progress on CCS

- CCS is absent from intended nationally determined contributions of most countries.
- Thus, it is clear that national policies have not accepted CCS as a promising technology.
- The cost on storage and transportation is one of the major bottlenecks for implementation of CCS.
- Looking at the importance of CCS in tackling climate change, experts are quite hopeful for the rapid development of the technology in the coming years.
- Policy support, however, will be crucial to bring the investment.

### CCS in India

- Commercial availability of CCS in India depends largely on successful implementation of the technology in industrialised countries, which is currently shoddy.
- The most crucial requirement of a long-term CCS strategy for coal-based power in India is a reliable CO<sub>2</sub> storage capacity assessment for the country.
- At the moment, CCS technologies are not economically feasible.
- Industries, especially steel and cement, have been proactively pursuing CCS as part of their emissions reduction ambitions.
- In September 2020, an 'Industry Charter' for near zero emissions by 2050 was agreed to by six Indian companies that will explore different decarbonisation measures including carbon sequestration.
- Industries need to collaborate to bring down the cost and push such projects in India.
- For example : Tata Steel in IJmuiden, Netherlands, has launched plans for a project to capture CO<sub>2</sub> from its blast furnaces and transport it for storage in empty gas fields under the North Sea.
- The project is expected to lead to a 30 per cent reduction of CO<sub>2</sub> from the steelmaking site.
- It aims to complete the project by 2027

- It could lead to the reduction of three million tonnes of CO<sub>2</sub> a year in the first phase, equivalent to 1.5 million tonnes of CO<sub>2</sub>-free steel every year or 1.3 million cars per year made from climate-neutral steel.

### **Indigenous innovation need support**

- A small-scale CCS plant is already operational in India.
- A plant at the industrial port of Thoothukudi is capturing CO<sub>2</sub> from its own coal-powered boiler and using it to make baking soda.
- It will lock up 60,000 tonnes of CO<sub>2</sub> a year.
- The technology runs without subsidy or any other government policy support in India.
- Such projects bring hope for CCS for small industries.

### **Government initiative**

- India's Department of Science and Technology has established a national programme on CO<sub>2</sub> storage research and, in August 2020, made a call for proposals to support CCS research, development, pilot and demonstration projects.
- This is part of the accelerating CCS technologies (ACT) initiative, for which India has committed one million euros to support Indian participants.
- At least 16 countries, regions and provinces are working together in ACT to fund research and development that can lead to a safe and cost-effective CCUS technology.

## **5.6.Uttarakhand: First tiger translocation today**

- Context: The Rajaji Tiger Reserve is set to welcome the first tiger from Jim Corbett Tiger Reserve.
- It is the first such relocation in Uttarakhand aimed at tiger population management.
- A total of five big cats from the Jim Corbett Tiger Reserve – nearly eight years since conceptualisation of the project and four years after clearance from the National Tiger Conservation Authority (NTCA) – are scheduled to be translocated from Jim Corbett to Rajaji.
- The tigress which will be translocated was rescued, tranquilised and radio-collared.
- Around 100 people, including IFS officers, forest personnel, veterinary doctors and wildlife scientists, will execute the entire exercise.
- Spread over 557 sq km, Rajaji reserve has 37 tigers against a capacity of 83, and its western part spread over 380 sq km has only two tigresses –codenamed T1 and T2.
- Forest authorities do not expect any reproduction as they are aged above 18 years.

### **Why translocation is needed?**

- The western portion of the Rajaji Tiger Reserve, which occupies more than 60 per cent of the total reserve area, has only two tigresses, presumed to be unfit for reproduction as they above 18 years.
- Despite Rajaji having 37 tigers, the eastern part cannot boost numbers in the western portion as the two are divided by a traffic corridor which makes it difficult for the big cats to migrate.

- With this relocation, a rise in tiger numbers can be expected in the western part next year.
- An expert committee comprising forest department officials and scientists from the Wildlife Institute of India (WII) have identified two males and three females in Corbett, which has 252 tigers, for translocation.
- The five tigers are aged between 4 to 6 years and physically fit for reproduction.
- Sheds are being built for six elephants in the Motichur range of Rajaji.
- They will be used to help monitor the big cats post translocation and to prevent them from entering any areas with human population.
- The forest staff in Motichur range was put on alert and safaris in the area have also been cancelled for a day.

## 5.7. Protulaca Lajii

- Context: Botanists have discovered a new species of wild Sun Rose from the Eastern Ghats in India.
- The new species, named *Portulaca lajii*, discovered from Prakasam district of Andhra Pradesh has unique features such as a tuberous root, no hair in its leaf axils, a reddish pink flower, prolate-shaped fruits, and copper brown seeds without lustre.
- These morphological features distinguish the species from other species of genus *Portulaca*.
- Botanical explorations were undertaken in the Prakasam district during April 2018 to February 2020.
- The species was first spotted in April 2018 but the samples were seen during flowering in July-August
- The flowers, which are reddish pink in colour, are very minute, at about 0.5mm.
- The plant was found growing in rocky crevices at an altitude of about 1,800 metres above mean sea level, very close to the ground, at about less than 10 cm.
- The flowers are very attractive and bloom for months from June to February.
- The plant can have a rich horticultural value.
- Botanists have been able to grow the plant species (*Portulaca lajii*) in botanical garden as a part of ex situ conservation and found that the plant bears beautiful, tiny pink flowers for eight months.
- It is because of the succulent nature of tuberous roots that the plant can survive on rocky crevices.
- The plants belonging genus *Portulaca* are classified in the category Sun Rose because they flower in bright sunshine.
- The genus was described by Linnaeus in 1753 as a type genus of the flowering plant family Portulacaceae, and presently comprise over 100 taxa which are distributed throughout tropical and subtropical regions of the world.



- In India, earlier studies on the genus *Portulaca* have revealed the presence of eight species.
- The species are widely distributed in both forests and agricultural fields, unlike the new *Portulaca laljii* which only grows naturally in rocky crevices.
- *Portulaca laljii* has been named to honour the contribution of Lal Ji Singh, an eminent botanist of the Botanical Survey of India associated with the Andaman and Nicobar Centre of the Botanical Survey of India.
- The species has been placed under the 'Data Deficient' category of the IUCN List of Threatened Species because very little information is available about the population of the species.

## 5.8.Himachal :1,200 migratory birds die at Pong Dam

- Context: Around 1,200 migratory birds have died in a week under mysterious circumstances at the Pong Dam in Himachal Pradesh.
- About 57,000 migratory birds were recorded in the census on December 15 in Pong wetlands which are spread over 18,000 hectares.
- The most prominent among them were the bar-headed goose, northern pintail, common pochard, Eurasian coot, common teal, great cormorant, Eurasian wigeon, gadwall, and graylag goose.

### INTRODUCTION

- The **Pong Dam**, also known as the **Beas Dam**, is an earth-fill embankment dam on the Beas River just upstream of Talwara in the state of Himachal Pradesh India. The purpose of the dam is water storage for irrigation and hydroelectric power generation. As the second phase of the Beas Project, construction on the dam began in 1961 and was completed in 1974.



- Every winter, the Pong dam is visited by 1.5 lakh migratory birds from 114 species.
- In the Union Territory of Chandigarh, near Sukhna Lake five birds have been found dead.
- The dead birds include endangered bar-headed goose, black-headed gull, river tern, common teal, and shoveler.
- It was noticed that before their death, a few birds including the bar-headed goose would act strangely.
- Their carcasses were sent to the Indian Veterinary Research Institute in Bareilly and Regional Disease Diagnostic Laboratory in Jalandhar to determine the cause of death.
- On December 28, four bar-headed geese and one common teal were found dead in the Fatehpur area of Pong.

- Then the field staff of the wildlife department carried out the search of the wetland and found out that 421 birds had died in wildlife range of Dhameta and Guglara areas of the Nagrota range.
- The initial report of the post-mortem has ruled out poisoning as the cause of their death.
- It has been found that avian influenza (H5N1) has led to the death of around 2,736 migratory birds in Himachal Pradesh, so far, in the sanctuary area in district Kangra of the State.
- In Chandigarh, the reason for the death of birds has not been ascertained so far.
- An official statement from the State Forest department said that the cause of mortality in migratory birds at Pong Dam Wildlife Sanctuary has been identified to be H5N1 avian influenza virus on the basis of test results of samples sent to the National Institute of High Security Animal Diseases (NIHASD), Bhopal.
- As per action plan of animal husbandry for preparedness, control and containment of avian Influenza issued by government, rapid response teams have been constituted and deployed for collection and safe disposal of dead birds as per protocol.
- The infected areas are being disinfected and sanitized.

## 5.9. Indian states, power plant with poor ash utilisation must act now.

- The years 2019 and 2020 witnessed a surge in ash dyke breach incidents from coal power plants across various states in India.
- This year, major ash dyke breach incidents were reported from the North Chennai Power Station in Tamil Nadu, Sasan Power Plant in Madhya Pradesh and NTPC Talcher in Odisha.
- In 2019, major incidents of ash breach occurred at NTPC Vindhyachal and Essar Power Plant in Madhya Pradesh, Bokaro Power Plant in Jharkhand and Khaparkheda and Koradi power plant in Maharashtra.

**WHAT IS FLY ASH?**

- Fly ash is a finely divided byproduct resulting from the combustion of coal in power plants.
- It contains large amounts of silica, alumina and small amount of unburned carbon, which pollutes environment.
- It is grey in colour and alkaline in nature.
- The particle size ranges between 1-100 microns.
- The specific gravity of FA lies between 1.9 and 2.8 (generally 3.15 for Cement)

- Several legal cases have been pending against power plants due to such breach incidents.
- Despite a well-defined policy and regulatory framework in place for 100 per cent fly ash utilisation, more than 50 per cent of power plants are still in non-compliance of this notification.
- These power plants are majorly concentrated in states like Chhattisgarh, Maharashtra, Madhya Pradesh, Odisha and Uttar Pradesh.
- Substantial quantities of coal are consumed in these states, generating huge quantities of ash.
- These states, with high amounts of accumulated ash, require immediate attention as these are the regions that have reported frequent incidents of ash dyke breach and also severe air pollution issues.


- Though ash generation has increased tremendously due to huge coal capacity addition, it is seen that its utilisation has not been able to keep up in these states leading to its pile-up.
- States with good utilisation rate are able to clear their ash stocks.
- However, states with a low utilisation rate are facing the brunt of pollution due to huge quantities of accumulated ash stocks.
- Ash is piling up in the wet form as slurry in ash ponds and in the dry form in open fields in such states.
- Currently, nearly 1.6 billion tonnes of ash is lying in ash ponds across the country.
- Delhi-based non-profit Centre for Science and Environment (CSE), in its recent report on fly-ash, analysed the Central Electricity Authority's state-wise data on ash generation and utilisation from 2010-11 to 2018-19.
- It found that Chhattisgarh and Uttar Pradesh had accumulated the most ash during this period. Madhya Pradesh, Andhra Pradesh, Maharashtra and Odisha also have a huge ash backlog.
- Together, these states accounted for 76 per cent of the total residual ash stock left un utilised from the coal power sector between the years 2010 and 2019.
- Many of the plants with poor ash utilisation rates in these states belong to Centre- and state-owned companies.
- West Bengal is observed to be the only state that produces a sizeable quantity of ash but manages to clear its stock.
- Ash utilisation is observed to be low in some regions either due to scarcity of cement or brick manufacturing units in the nearby areas, low demand in construction activities including roads and highways or overabundance of fly ash in the area due to presence of multiple thermal power stations.
- Pro-activeness of power plants in clearing their ash and towards handling this issue on a priority basis

### POLLUTION INDEX

*Pollution parameters displayed at the entrance of NCTPS Stage I on Thursday*

Parameters	Unit I	Unit II	Unit III
Particulate matter (in mg per cubic meter)	310.25	85.01	21
Sulphur dioxide (PPM)	340.50	475.60	333.90
Nitrogen Oxide (PPM)	5589.80	414.80	374.20

Most of us have eye irritation and breathing trouble due to the fly ash dust. Even the canteen is full of dust and we do not have a hygienic condition to eat — Employee of NCTPS stage II




Fly ash leaking at North Chennai Thermal Power Station

also plays a major role in enhancing utilisation.

- Efficient rail / road connectivity in the state to transfer fly ash to distant locations is another important aspect.
- The use of fly ash in cement and concrete is one of the most promising.
- On an average, about 25 per cent of fly ash from power plants in India is currently utilised in cement manufacturing, seven per cent in brick manufacturing and only 3.6 per cent in roads and flyovers.
- Andhra Pradesh, Haryana, Karnataka, Punjab, Rajasthan and Tamil Nadu together account for about 60 per cent of the total cement production capacity in India.
- These are also the states with the highest ash utilisation percentages.
- On the other hand, in states with poor ash utilisation rates, demand for ash is limited due to minimal presence of such businesses.

## Ominous portents

A study has pointed to the dangerous impact of fly ash pollution in areas surrounding the North Chennai Thermal Power Station in Ennore



**Extent over which the fly ash spill is visible:**  
**344.39** hectares

**Extent of fly ash covering rivers, canals and waterbodies:**  
**309** hectares

**Chemicals found in samples taken from the Kosasthalayan: lead, mercury, selenium and arsenic**

**Metals found in excess levels in fish: cadmium and lead**

**Species that have disappeared or are chivndling: white prawns, black prawns, sand prawns, tiger prawns, green crab, grey eel catfish, mullet, silver biddy, perch and sea bass**

**The scope of the study was limited to the two stages of the NCTPS but coal fly ash ponds of the now closed Ennore power plants and the Vallur power plants are located in and near the creek**

**In addition, a 1500 MW plant and an ash pond of NTPC Tamilnadu Energy Company Ltd. are nearby**

**PROJECTS UNDER CONSTRUCTION IN THE AREA:**


NCTPS Stage III:	Ennore SEZ:
<b>800 MW</b>	<b>800 MW</b>
Ennore thermal station: <b>660 MW</b>	

**PROJECTS IN THE PIPELINE:**

ETPS replacement:	Chennai Power Generation Limited:
<b>600 MW</b>	<b>1,030 MW</b>
North Chennai Power Company: <b>1,200 MW</b>	


**Any restoration or remediation effort needs to be looked at from a landscape point of view and not as a piecemeal approach**

**DR. SULTAN AHMAD ISMAIL**  
Director, Ecoscience Research Foundation



**There is a discrepancy of 10.01 Mm<sup>3</sup> to 12.01 Mm<sup>3</sup> (in excess) when comparing the fly ash present in the dykes to what NCTPS is reporting**

**DR. BALAJI NARASIMHAN**  
Associate Professor, Department of Civil Engineering, IIT-Madras



## Where can fly ash be used?

- This can be done by way of entering into long term / medium term / short term contracts with cement / brick manufacturing units or construction agencies located in distant locations that can utilise ash.
- Pond ash can be supplied to the National Highway Authority of India, road projects and other government infrastructure projects. Fly ash can be transported in bulk on a regular basis to such units / agencies through roads or cheaper rail network.
- Power plants can also explore the possibilities of setting up cement / brick units in its close proximity.
- The use of fly ash in backfilling of abandoned, open cast and underground mines also has significant potential, especially in case of pithead thermal power stations that otherwise have limited avenues for fly ash utilisation due to their remote location.

## 5.10.Karnataka formulating plan for endemic species kolar bats

- Context: The state government of Karnataka is formulating a conservation plan for the Kolar Leaf-Nosed Bats found in the caves of Kolar district of Karnataka.
- The rare species were found only inside the two caves of the Hanumanahalli village of Kolar district for several years, suddenly disappeared from one of the two caves.
- After the species became locally extinct from one of the caves, the Karnataka Forest Department has swung in action along with the Bat Conservation India Trust to conserve the remaining bats in the area.
- Kolar Leaf-Nosed Bats come under the classification of endemic or virgin species which mean that the species is only found exclusively in this region.
- In addition to handing over the conservation programme to The Bat Conservation Society, a research grant has also been issued in the name of the society to undertake research in the field of bat species.
- The government came to know about the species' local extinction from one of the two caves way back in the year 2014 in a study conducted by the Osmania university.
- The state government had subsequently notified the 30 km area around the caves as a protected area.
- Bats are one of the least studied species in the country despite hosting around 130 varieties of bats.
- Bats are very adaptable creatures and often found in the vicinity of humans and play a very vital role in the pollination process of the plants.
- Very little is known about the Leafletted leaf-nosed bat or Kolar Leaf-nosed Bat.
- They are threatened by illegal granite mining occurring in the close vicinity of its only known roost, in a subterranean cave which is on a monolithic granite hill.
- It has been reported to have abandoned two other roosts due to fires lit for the easier extraction of granite.
- Order: Chiroptera
- Family: Hipposideridae



- Population: 150-200
- Trend: decreasing.

### Habitat and Ecology

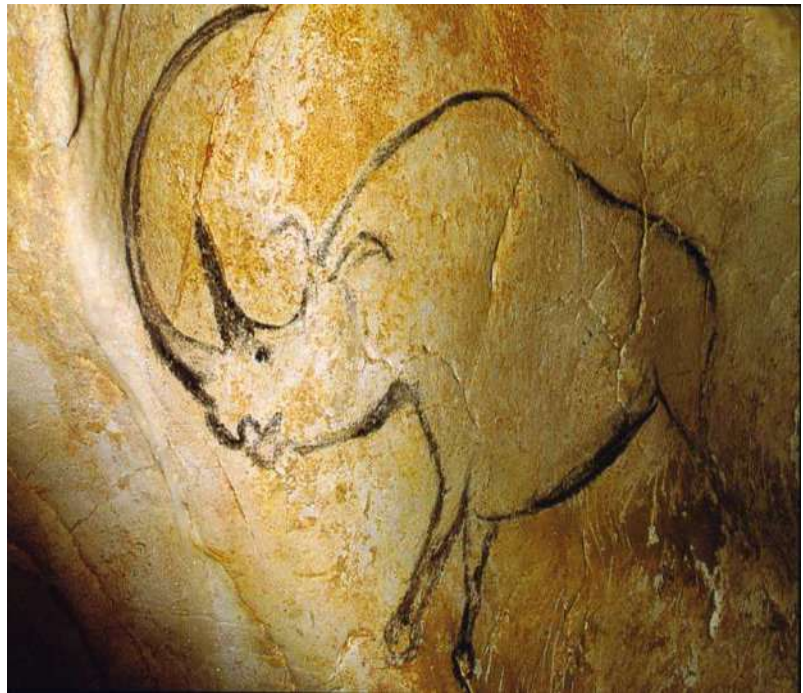
- Kolar leaf-nosed bats' roost in a single narrow, inaccessible, subterranean cave on a monolithic granite hill. The surrounding habitat is tropical dry shrubland surrounding by villages and agricultural fields. Little else is known of their habitat and ecology.

## 5.11. Ice Age woolly rhino unearthed in Siberia

- Context: A well-preserved Ice Age woolly rhino with many of its internal organs still intact has been recovered from permafrost in Russia's extreme north.
- The carcass was revealed by melting permafrost in Yakutia in August.
- Scientists are waiting for ice roads in the Arctic region to become passable to deliver it to a lab for studies .
- It's among the best-preserved specimens of the Ice Age animal found to date.
- The carcass has most of its soft tissues still intact, including part of the intestines, thick hair and a lump of fat.
- Its horn was found next to it.
- Recent years have seen major discoveries of mammoths, woolly rhinos, Ice Age foal, and cave lion cubs as the permafrost increasingly melts across vast areas of Siberia because of global warming.
- Scientists dated the carcass as anywhere from 20,000- to 50,000-years-old.
- More precise dating will be possible once it is delivered to a lab for radiocarbon studies.
- The carcass was found on the bank of the Tirekhtyakh river in the Abyisk district, close to the area where another young woolly rhino was recovered in 2014.
- Researchers dated that specimen, which they called Sasha, at 34,000 years old.
- Woolly rhinoceros, (genus *Coelodonta*), either of two extinct species of rhinoceros found in fossil deposits of the Pliocene and Pleistocene epochs (5.3 million to 11,700 years ago) in Europe, North Africa, and Asia.
- It probably evolved from an earlier form, *Dicerorhinus*, somewhere in northeastern Asia, entered the European region, and became extinct at the end of the most recent ice age.
- The animal was massive, with two large horns toward the front of the skull, and was covered with a thick coat of hair.



- The woolly rhinoceros was also present in more temperate, nonglacial regions, where it inhabited grasslands.
- Woolly rhinoceroses remained in northern Eurasia until at least 18,500 years ago, and scientific evidence suggests that they were not hunted to extinction by human beings.
- Rather, they likely died out from sudden climate changes brought on during the Bølling-Allerød interstadial, an interval that saw the rapid retreat of the Pleistocene ice sheets beginning about 14,700 years ago.
- Woolly rhinoceros cave painting (An illustration of a woolly rhinoceros at Chauvet-Pont d'Arc, Ardeche, France dates to between 33,000 and 30,000 years ago)
- Most known specimens are represented by frozen carcasses discovered in Siberia and other carcasses preserved in oil seeps in central Europe
- They have been grouped into *Coelodonta antiquitatis*.
- However, the oldest known specimen, was found on the Plateau of Tibet in 2007 and dated to 3.6 million years ago.

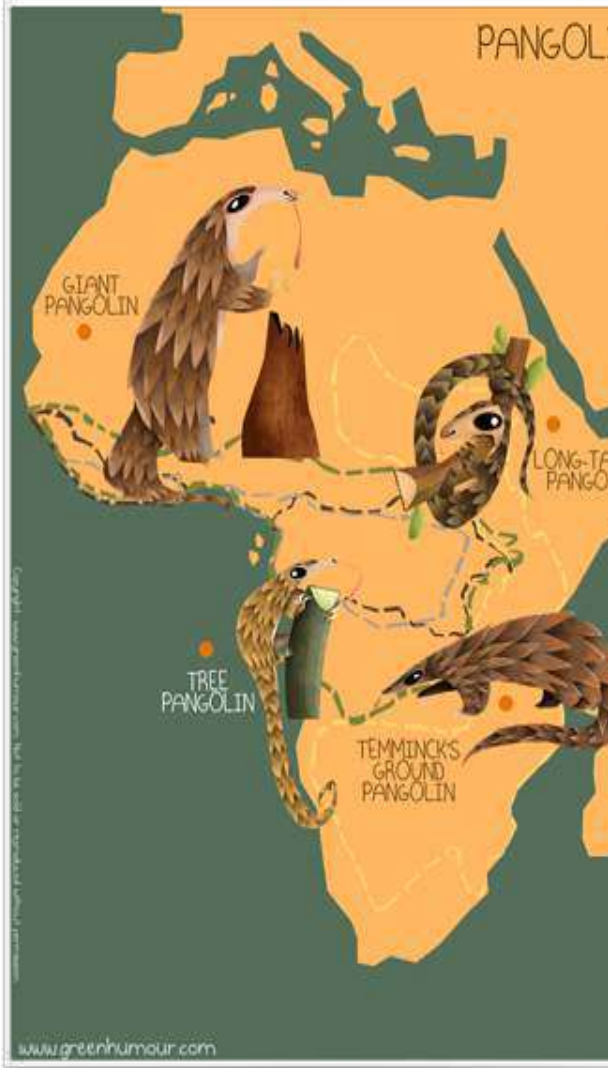


## 5.12. Pangolin poaching

- Context: The Odisha Forest department has stressed the need for stricter monitoring of social media platforms to check pangolin poaching and trading.
- During past few years, instances of pangolin poaching have been reported at regular intervals from different parts of Odisha.
- The Athagarh Forest Division in Odisha's Cuttack district had tasted success in pinning down the active gang of pangolin smuggler.
- Poaching is pushing the endangered species into extinction.

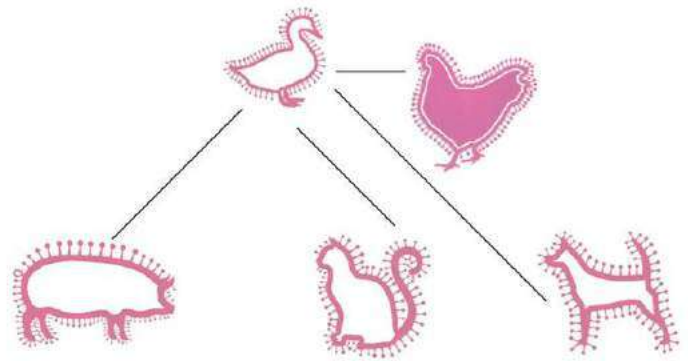
### Habitat

- Indian Pangolin is widely distributed in India, except the arid region, high Himalayas and the North-East.
- The species is also found in Bangladesh, Pakistan, Nepal and Sri Lanka.
- Chinese Pangolin is found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, North-East Bangladesh and through Southern China.



**EXPRESS explained.**

### HOW DOES IT SPREAD?



- Migratory aquatic birds are carriers of Influenza A viruses and shed it in their droppings. This is how it spreads to other birds, and, occasionally, to mammals such as pigs, horses, cats and dogs
- Since 1997, bird flu has been detected in 50 countries around the world. Bangladesh, China, Egypt, India, Indonesia and Vietnam are considered to be endemic for Asian HPAI H5N1 virus in poultry\*\*

LONG-TAILED PANGOLIN

TEMMINCK'S GROUND PANGOLIN

Critically Endangered

Endangered

Vulnerable

(RANGE REFERENCE: THE IUCN RED LIST)

### IUCN Red List

- Indian Pangolin: Endangered
- Chinese Pangolin: Critically Endangered
- Both these species are listed under Schedule I, Part I of the Wildlife (Protection) Act, 1972.

## 5.13. The return of bird flu in India

- Context: Several states are scrambling to contain bird flu, including Kerala, Rajasthan, Madhya Pradesh, Haryana, Himachal Pradesh, Delhi and Maharashtra.
- Bird flu or avian influenza is a viral infection that is reported mostly in birds, but has the potential to affect humans and other animals.
- The most common strain of the virus that causes severe respiratory disease in birds is H5N1.
- The most common strain of the virus that causes severe respiratory disease in birds is H5N1; various other strains like H7, H8 too, cause infection.
- The virus was first reported in geese in China in 1996.
- Since then, outbreaks have been reported periodically across the world.

**EXPRESS explained.**



**BIRD FLU IN INDIA**

- In 2006, India recorded its first major outbreak in Maharashtra and Gujarat
- In 2008 and 2014, outbreaks were reported in West Bengal and Kerala respectively
- Between 2006 and 2015, India reported 25 episodes of H5N1 bird flu in poultry in 15 states. There have been no case of human infection so far
- In September 2019, India declared itself free from bird flu

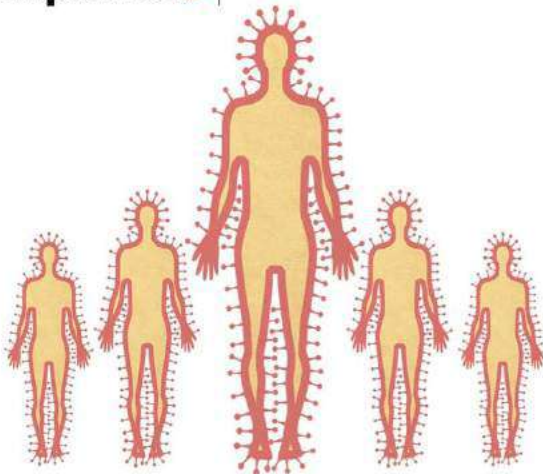
women lactate and cure ailments ranging from asthma and psoriasis to cancer. Scales are also made into jewelry or charms. Pangolin skins used to manufacture leather goods like boots and shoes. Also traded and smuggled

**WHEN DID IT BEGIN AFFECTING HUMANS?**

- In 1997, the first case of human infection was detected in Hong Kong. This was the deadly H5N1 strain of the virus. Subsequently, several other strains of the virus such as H5N2 and H9N2 spread from animals to humans
- People in close contact with infected livestock or dead birds are at risk from the virus. According to WHO, the virus is sensitive to heat and does not spread from people to people or from well-cooked food
- Between 2003 and 2014, the World Health Organisation recorded 701 cases of H5N1 and 407 deaths among humans

**EXPRESS explained.**

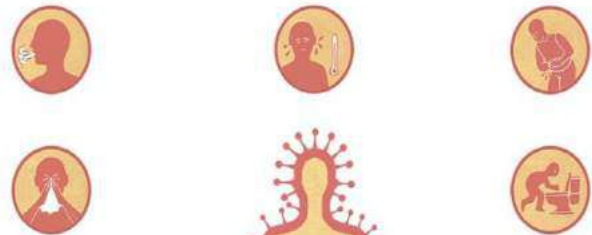
**DANGERS**



- Around 6 out of 10 confirmed cases of H5N1 among humans have led to deaths (though the actual mortality rate may be lower due to under-reporting of asymptomatic cases)
- If the virus mutates and becomes easily transmissible, as is common for flu viruses, it can potentially cause a pandemic

**EXPRESS explained.**

**SYMPTOMS, TREATMENT AND PRECAUTION FOR H5N1**



- H5N1 may cause severe respiratory illnesses such as pneumonia or Acute Respiratory Syndrome in humans. Early symptoms include fever, cough, sore throat, and sometimes, abdominal pain and diarrhoea
- Antiviral drugs, especially oseltamivir, are used for treatment
- People working with livestock are advised to use PPEs and follow hand hygiene

\*\* Source: Centers for Disease Control and Prevention, USA

TEXT: GAGANDEEP SINGH DHILLON; ILLUSTRATION: SUVAJIT DEY

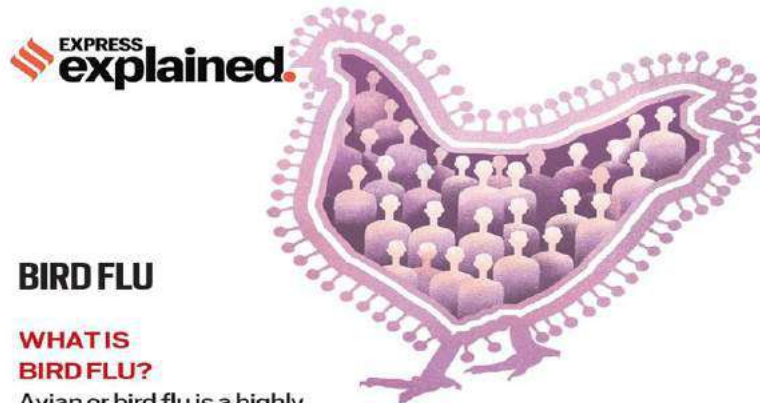
- India reported the presence of the virus in Nandurbar, Maharashtra, in 2006, which led to large-scale culling of poultry birds.
- Samples from Rajasthan, Madhya Pradesh, and Kerala have tested positive for the A (H5N8) strain of the virus, while samples from Himachal Pradesh have shown the presence of A (H5N1).

The major pollutants are

- Particulate matter (fly ash and soot)
- Sulfur oxides (SO<sub>2</sub> & SO<sub>3</sub>)
- Oxides of nitrogen (NO & NO<sub>2</sub>)
- Trace metals Cd, Hg, Pb, Ni, V, As, F etc. .
- Probability of emission of CO and unburnt carbon.

## Human transmission

- The H5N1 virus can jump species and infect humans from the infected bird.
- The first case of H5N1 infection in humans was reported in Hong Kong in 1997, when a poultry farm worker caught the infection from infected birds.
- The high mortality rate in humans – almost 60 per cent – is the main cause of concern about the spread of bird flu.
- In its present form, human-to-human infection is not known – human infections have been reported only among people who have handled infected birds or carcasses.



### BIRD FLU

#### WHAT IS BIRD FLU?

Avian or bird flu is a highly contagious viral disease caused by Influenza Type A viruses that affects poultry. It was first detected in 1996 in geese in China. Infected birds are culled to contain the spread

#### WHY IS IT IN THE NEWS?

Bird flu has been reported in Himachal Pradesh, Rajasthan, Madhya Pradesh, Kerala and Haryana. Jharkhand, Gujarat and Uttarakhand, too, have sounded an alert

- The virus dies immediately if exposed to temperatures over 70 degrees Celsius.
- Unlike in South East Asian countries, both meat and eggs in India are eaten well cooked, which sees them being exposed to over 100 degrees Celsius.

## 5.14. Power ministry asks MoEF&CC to dilute emission norms for coal-based power stations

- Context: The Union power ministry has asked the environment ministry to dilute norms for sulphur dioxide emissions from coal-based thermal power plants (TPPs).
- It cited unachievable deadlines and unnecessary norms in many regions.
- The Union Ministry of Environment, Forest and Climate Change (MoEF&CC) had notified emission norms for particulate matter, sulphur dioxide and oxides of nitrogen in 2015.
- These had to be complied with by power stations in 2017.
- However the industry had pushed back and committed in the Supreme Court to comply with the norms by 2022.
- More than 50 per cent of the plants have not taken adequate steps to meet these emission norms.

- Union Minister for Power, had asked the Central Electricity Authority (CEA) to submit a paper to suggest periodicity of pollutant monitoring as well as emission standards specific to plant locations in February 2020.

## A STORY OF MISSED DEADLINES

All 11 thermal power plants operating within a 300km radius of Delhi are currently running 'illegally' after missing their deadlines to switch to cleaner Flue-Gas Desulfurisation (FGD) technology

Only two have partially installed FGD technology

**WHY CLEANER TECHNOLOGY**

- ▶ According to a Greenpeace analysis in 2018, SO<sub>2</sub> emissions could go down by around 89% and NO<sub>x</sub> by 79% from the base emissions at present if a switch to cleaner FGD technology is made and the new emission standards followed
- ▶ Coal, fly ash, and secondary particles from thermal power plants and industries in Delhi are said to contribute 35% of PM<sub>2.5</sub> in the winter and 41% of PM<sub>2.5</sub> in the summer

No coal-based thermal power plant is currently functional in Delhi after the one in Badarpur was shut down in 2018.

Original Deadline 2017  
Latest Deadline December 2019

Status	3	6	9
1 Mahatma Gandhi TPS (Haryana) FGD work commissioned, functional at two units	Rajiv Gandhi TPS (Haryana) Re-tendering to be done	Nabha TPP (Punjab) Bid awarded	Dadri TPP (UP) FGD work commissioned, functional at four units
2 Panipat TPS (Haryana) Re-tendering being done	4 Yamuna Nagar TPS (Haryana) Re-tendering to be done	7 Guru Hargobind TPP (Punjab) Bid opened	10 Harduaganj TPS (UP) Re-tendering to be done
	5 Indira Gandhi STPP (Haryana) Bid awarded	8 Talwandi Sabo TPP (Punjab) Bid awarded	11 Ropar TPS (Punjab) Notice inviting tenders issued

### trafficked mammal THREATS

**POACHING** **HABITAT LOSS**

*Pangolins are not killed humanely, as the easiest way to separate the scales from the body is to dip the animal alive into a boiling cauldron of water.*

#### What are Pangolins used for?

- TRADITIONAL CHINESE MEDICINE
- CLOTHING
- MEAT
- CRYSTAL METHAMPHETAMINE

#### How to help?


- Don't hunt pangolins.
- Don't sell/trade pangolins.
- Support local conservation.
- Don't purchase pangolin products.

For more info please write to [info@friendofthesea.org](mailto:info@friendofthesea.org) or check [www.friendofthesea.org](http://www.friendofthesea.org)

For more info please write to [info@friendoftheearth.org](mailto:info@friendoftheearth.org) or check [www.friendoftheearth.org](http://www.friendoftheearth.org)

- It is argued that the same norms for thermal power plants located in critically polluted areas and other areas where air quality is already good, doesn't appear to be practical as additional costs are involved.
- Norms for industries are not based on ambient air quality.
- Even if no industries function, an industrial area can have high pollution levels.
- Such instances have been observed in Delhi.
- Ambient air quality is a function of various factors like weather, other pollution sources in the vicinity and has no bearing on industrial norms
- Pollutants, particularly gases like sulphur dioxide can react to form particulates exponentially and risk life.
- A similar system of uniform norms is being implemented across all industries running in the 17 categories for both air and water.

### 5 YEARS BACK AND FORTH

<ul style="list-style-type: none"> <li>▶ In December 2015, MoEFCC for the first time notified emission standards for sulphur dioxide, nitrogen oxide (NOx), mercury emissions as well as water consumption limit for thermal power plants</li> <li>▶ Out of 139 plants, only 3 have complied with SO2 norms</li> </ul>		<ul style="list-style-type: none"> <li>▶ Water usage norms diluted in June 2018</li> <li>▶ NOx norms first diluted for power plants commissioned between 2003-2016</li> <li>▶ Now, they are being diluted for plants installed after January 2017 too</li> <li>▶ Deadline to meet norms too being extended repeatedly in staggered manner</li> </ul>
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## 5.15.Govt. approves advisory for management of Human-Wildlife Conflict across the country.

- Context: The Standing Committee of National Board of Wildlife (SC-NBWL) has approved the advisory for management of Human-Wildlife Conflict (HWC) in the country.
- The advisory makes important prescriptions for the States/ Union Territories for dealing with Human-Wildlife conflict situations and seeks expedited inter-departmental coordinated and effective actions.
- The advisory envisages empowering gram panchayats in dealing with the problematic wild animals as per the section 11 (1) (b) of Wild Life (Protection) Act, 1972.
- Utilising add-on coverage under the Pradhan Mantri Fasal Bima Yojna for crop compensation against crop damage due to HWC and augmenting fodder and water sources within the forest areas are some key steps envisaged to reduce HWC.
- Payment of a portion of ex-gratia as interim relief within 24 hours of the incident to the victim/family.
- The advisory also envisages prescribing inter-departmental committees at local/state level, adoption of early warning systems, creation of barriers, dedicated circle wise Control Rooms with toll free hotline numbers which could be operated on 24X7 basis, Identification of hotspots and formulation and implementation of special plans for improved stall-fed farm animal etc.

**A Gangetic dolphin at Bakshi near Bagnan in Bengal's Hooghly district**

- **GANGES RIVER DOLPHIN** (*Platanista gangetica*)
  - **Population:** 1,200-1,800
  - **Habitat:** Ganga-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India and Bangladesh
  - **Length:** About 2.5m. Females are larger than males and attain a maximum size of 2.67m. Males are about 2.12m
  - **Skin colour:** Greyish brown. Colour lightens as the animal grows
  - **Physical description:** A long thin snout, rounded belly, stocky body and large flippers
  - **Spotted at:** Sabujdwip and Khamargachi in Hooghly district, Bakshi in Howrah district and Nabadwip in Nadia district
- (Source: [wwf.panda.org](http://wwf.panda.org))

- Some of the other important approvals took place during the meeting are, inclusion of Caracal, a medium size wild cat found in some parts of Rajasthan and Gujarat, into the list of critically endangered species for taking up conservation efforts with financial support under Centrally sponsored Scheme-Development of Wildlife Habitat.

- Now, there are 22 wildlife species under recovery programme for critically endangered species.

- The National Board for Wildlife (NBWL) is constituted by the Central Government under Section 5 A of the Wildlife (Protection) Act, 1972 (WLPA).

- The Standing Committee of NBWL considers proposals after a series of levels of scrutiny and have recommendations of the State Chief Wildlife Warden, State Government and the State Board for Wildlife.

**PROJECT DOLPHIN**  
PRESERVING OUR UNDERWATER FRIENDS

**10-YEAR PROJECT TO FOCUS ON BOTH RIVER AND SEA DOLPHINS**

**AIM TO STRENGTHEN BIODIVERSITY, CREATE EMPLOYMENT OPPORTUNITIES AND ATTRACT TOURISM**

**KILLING, HABITAT FRAGMENTATION BY DAMS AND BARRAGES AND INDISCRIMINATE FISHING HAS REDUCED THE GANGES RIVER DOLPHIN POPULATION FROM TENS OF THOUSANDS TO AROUND 3,700 OVER THE LAST CENTURY**

**GANGES RIVER DOLPHIN, A SPECIES OF FRESHWATER DOLPHINS, IS PRIMARILY FOUND IN GANGA AND BRAHMAPUTRA RIVERS, AND THEIR TRIBUTARIES IN INDIA, BANGLADESH AND NEPAL**

**IN INDIA, THESE DOLPHINS ARE SIGHTED IN DEEP RIVERS IN ASSAM, BIHAR, JHARKHAND, MADHYA PRADESH, RAJASTHAN, UTTAR PRADESH AND WEST BENGAL**

**GANGES RIVER DOLPHIN, OFFICIALLY DISCOVERED IN 1801, CAN LIVE ONLY IN FRESHWATER**

Source: Government of India

INDIA TODAY GROUP

DIU

## 5.16. Gangetic dolphin

- Context: Three persons were arrested for beating a Gangetic dolphin to death in Uttar Pradesh.
- Gangetic dolphin was declared the national aquatic animal of India in 2009.
- It is popularly known as 'Susu'.



- Killing the aquatic animal is a punishable offence under Section 9/51 of the Wildlife Protection Act, 1972
- The Gangetic dolphin – a freshwater mammal is found in India’s Ganges river and Pakistan’s Indus river which can be recognised by its long snout nose
- It is an endangered and protected species .
- There are thought to be fewer than 5,000 Gangetic dolphins left.
- It faces a number of threats such as dumping of single-use plastics in water bodies, industrial pollution, fishing.
- The increase in the number of barrages and dams is also affecting their growth as such structures impede the flow of water.
- Dolphins are also poached for their flesh, fat, and oil, which is used as a prey to catch fish, as an ointment and as a supposed aphrodisiac.
- It is also called a blind dolphin because it doesn’t have an eye lens and uses echolocation to navigate and hunt.
- Like bats, they produce high-frequency sounds which helps them to detect objects when the sound waves bounce off them.
- Due to their dependence on echolocation, the Gangetic dolphins also suffer from the noise pollution created by large ship propellers, and by dredging.
- IUCN Status: Endangered
- Listed on CITES Appendix-I.
- Appendix II (migratory species that need conservation and management or would significantly benefit from international co-operation) of the Convention on Migratory Species (CMS).
- It is classified under Schedule 1, Wildlife (Protection) Act, 1972 providing absolute protection as offences under these are prescribed the highest penalties.
- Vikramshila Gangetic Dolphin Sanctuary (VGDS) in Bihar’s Bhagalpur district is India’s only sanctuary for its national aquatic animal.
- The Prime Minister announced the government’s plan to launch a Project Dolphin in his Independence Day Speech (15th August 2020).
- The proposed project is aimed at saving both river and marine dolphins.
- Project Dolphin will be on the lines of Project Tiger, which has helped increase the tiger population.
- Project got in-principle approval in December 2019, at the first meeting of the National Ganga Council (NGC), headed by the Prime Minister.
- It is expected to be implemented by the Ministry of Environment, Forest and Climate Change.
- Special Conservation program needs to be taken up for Gangetic Dolphin which is an indicator species for the river Ganga spread over several states.

- As the Gangetic dolphin is at the top of the food chain, protecting the species and its habitat will ensure conservation of aquatic lives of the river.
- So far, the National Mission for Clean Ganga (NMCG), which implements the government's flagship scheme Namami Gange, has been taking some initiatives for saving dolphins.

## 5.17. The world's largest floating solar energy project

- Context: The world's largest floating 600 MW solar energy project is to be constructed at Omkareshwar dam on Narmada river in Khandwa district of Madhya Pradesh.
- The estimated investment in this project stands at Rs 3,000 crore.
- The International Finance Corporation, World Bank and Power Grid have granted in-principle consent for providing aid for the said project development.
- The primary feasibility study of the project has been completed in collaboration with the World Bank.
- The project is likely to begin power generation by year 2022-23, the minister said.
- The project will have floating solar panels of 600 MW power generation capacity in the backwaters of Omkareshwar dam.
- It is estimated that in 2 years, the project will start providing cheap and good quality power.
- Electricity will be produced in about 2000-hectare water area by installing solar panels in the dam.
- Solar panels will float on the surface of the water in the reservoir.
- When the water level of the dam is low, it will automatically adjust upwards and downwards.
- Strong waves and floods will have no effect on them.
- The sun's rays will continue to produce electricity.
- Two types of floating Solar Power Plant?
  - ✓ Floating photovoltaic Solar Power plant uses photovoltaic panels installed on floating platform
  - ✓ Floating concentrated solar power System uses mirrors to redirect the solar power to a tower.
- Benefits
  - ✓ No land Occupancy
  - ✓ They help to reduce water evaporation. Therefore, is highly water saving.
  - ✓ Solar power plants have a natural cooling system generated by the water layer beneath the panels.

## 5.18. African elephants surveyed using AI

- Context: A new approach for surveying African elephants using satellite imagery and artificial intelligence (AI) was developed by an international team of researchers led by University of Oxford.
- The team detailed their work in a paper titled 'Using very high-resolution satellite imagery and deep learning to detect and count African elephants in heterogeneous landscapes', published in the academic journal Remote Sensing in Ecology and Conservation.

- A satellite orbiting in space is capable of capturing more than 5,000 square kilometre of imagery in a single run, within minutes.
- It not only eliminates the risk of double counting, but also makes it possible to conduct repeat surveys at short intervals
- The captured imagery is processed through a deep learning model to detect elephants.
- The team used a customised dataset of over 1000 elephants in South Africa, to train the model.
- The model was able to spot elephants in places away from the training data location, and also identify calves even though it was only trained on adults.
- The current techniques used for surveying the elephants like using manned aircraft for aerial counts can be costly, hindered by poor visibility, and logistically challenging.
- Also, erroneous counting could lead to misallocation of scarce conservation resources and misunderstanding population trends, the release noted.

## 5.19. Why forest fires are common in Himachal Pradesh

- Himachal Pradesh frequently witnesses forest fires during dry weather conditions. Recently a forest fire which started near Kullu raged for several days before being brought under control. Forest fires were also reported in Shimla and other parts of the state.
- The forest cover of Himachal Pradesh
  - ✓ Although two-thirds of the total geographical area of Himachal Pradesh is legally classified as forest area, much of this area is permanently under snow, glaciers, cold desert or alpine meadows and is above the tree line.
  - ✓ This leaves an effective forest cover of around 28 percent of the total area which amounts to 15,434 square kilometres, as per the Forest Survey of India.
  - ✓ Chir Pine, Deodar, Oak, Kail, Fir and Spruce are some of the common trees found here.

### How fire prone are these forests?

- Except for periods of precipitation in monsoon and winter, the forests remain vulnerable to wildfires.
- Forest fires are a recurrent annual phenomenon in the state, and most commonly occur in Chir Pine forests.
- In the summer season, forest fires occur frequently in the low and middle hills of the state, where forests of Chir Pine are common.
- The dry summer season from March to June coincides with the shedding of highly-combustible needles by Chir Pine trees.
- Once the fallen dry needles catch fire, it can spread quickly over the entire forest due to the action of the wind.
- However, due to their thick bark, the Chir Pine trees are themselves relatively unharmed by these fires, and can spring back to life during the monsoon season.

- During the post-monsoon season and in winters, forest fires are also reported in higher areas, including parts of Shimla, Kullu, Chamba, Kangra and Mandi districts, where they usually occur in grasslands.

### **Causes of fire**

- Natural causes such as lightning or rubbing of dry bamboos with each other can sometimes result in fires, but forest officials maintain that almost all forest fires can be attributed to human factors.
- When the grass is dry, even a small spark, such as someone dropping a burning matchstick, torchwood or a bidi/cigarette, can cause a massive fire.
- A spark can also be produced when dry pine needles or leaves fall on an electric pole.
- People who frequently pass through a forest to gather minor produce, take their animals for grazing or for other purposes may set up a temporary hearth to cook food or warm themselves.
- If they leave behind a smouldering fire, it can develop into a forest fire.
- Also, when people burn their fields to clear them of stubble, dry grass or undergrowth, the fire sometimes spreads to the adjoining forest.

### **What are the fuels of such massive fires?**

- The dry leaf litter on the forest ground acts as a ready fuel.
- Fallen tree leaves, dry grass, weeds, low brushwood, deadwood on the forest floor, logs and stumps etc form the surface fuels.
- Below the loose litter, decaying materials such as humus, wood, shrubs, roots, much and peat can also support the combustion.
- Above the surface level, dry standing trees, mosses, lichens, dry epiphytic or parasitic plants, and fallen branches trapped in the under story can spread the fire to the upper foliage and the tree crowns.

### **How much damage do the forest fires cause?**

- Forest fires can cause a lot of damage to the regeneration in the forests and their productivity.
- Moisture-loving trees such as Oaks and Deodars may give way to other species and exotic weeds.
- Forests help maintain aquifers and continuous flow of streams and springs, and provide firewood, fodder and non-timber produce to the local communities – all these capacities may get adversely affected in case of a fire.
- Forest fires may destroy organic matter in the soil and expose the top layer to erosion.
- They may also impact the wildlife by burning eggs, killing young animals and driving the adult animals away from their safe haven.
- Sometimes, a forest fire may get out of control and extend to human settlements, thus posing danger to human life and property.
- According to the Himachal forest department, forest fires cause an estimated loss of several crore rupees each year.

- From 2016-17 to 2019-20, the annual loss to the state due to forest fires has ranged from Rs 1.7 crore to Rs 3.5 crore.
- Around 1,200 to 2,500 forest fires were reported each year during this period affecting thousands of hectares.

### **Are the recent forest fires unusual?**

- Forest fires are common every time a dry spell hits the state.
- Himachal witnessed unusually dry weather conditions in 2020 from August to November, resulting in drought-like conditions.
- That period also saw a large number of forest fires – at least 500 fires were recorded from August till early November.
- Currently, the weather has been dry for the past week, resulting in some fires.

### **What is done to prevent and control forest fires?**

- Forecasting fire-prone days using meteorological data, clearing camping sites of dried biomass, early burning of dry litter on the forest floor, growing strips of fire-hardy plant species within the forest, and creating fire lines in the forests are some of the methods to prevent fires (fire lines are strips in the forest kept clear of vegetation to prevent the fire from spreading).
- Once a fire starts, early detection and quick action by fire-fighting squads is crucial.
- For such activities, the state forest department has a fire protection and fire control unit.
- In 1999, the state government notified forest fire rules which restrict or regulate certain activities in and around forest areas such as lighting a fire, burning agricultural stubble or undergrowth (ghasnis) and stacking inflammable forest produce such as dried leaves and firewood.

## **5.20.Change rules on confiscation of animals, SC tells Centre**

- The Centre informed the Supreme Court about the 2017 rules under the Prevention of Cruelty to Animals Act, 1960, and said that there was a difference between seizure and confiscation of animals, while responding to a petition.
- The Centre's response came after the court had asked it to amend a rule in the Act pertaining to confiscation of animals before an accused is convicted under the legislation.
- The plea questions the constitutional validity of the Prevention of Cruelty to Animals (Care and Maintenance of Case Property Animals) Rules, 2017 and Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules, 2017.
- The 2017 rules allow a magistrate to forfeit the cattle of an owner facing trial under the Act and send them to infirmaries, gaushalas etc.
- The petition pointed out that the transporters, farmers and cattle traders were being threatened since the rules were notified.

# ELEPHANT SPECIES

Asian Elephant

African Savannah Elephant

African Forest Elephant



There are three recognized elephant species: Asian, African savannah and African forest. Adult female elephants are called cows; adult males, bulls; and sub adults, calves.

SPECIES		
Asian elephant	African savannah elephant <i>(also called African bush elephant)</i>	African forest elephant
SCIENTIFIC NAME		
<i>Elephas maximus</i>	<i>Loxodonta Africana</i>	<i>Loxodonta cyclotis</i>
SUBSPECIES		
Indian, Sri Lankan and Sumatran		
CONSERVATION STATUS		
Endangered	Vulnerable	Endangered
HOME RANGES		
Southeastern Asia, including India, Thailand, Nepal, Sumatra, Cambodia, Myanmar, Bhutan, Borneo, Vietnam, Bangladesh and China. They inhabit grasslands, different types of forests and scrublands. They can live at altitudes ranging from sea level to more than 9,800 feet.	Sub-Saharan Africa, including Uganda, Kenya, Tanzania, Botswana, Zimbabwe, Zambia, Angola and Ethiopia. The elephants move among a variety of habitats, including grasslands, forests, woodlands, wetlands and agricultural land from sea level to mountain slopes. In Mali and Namibia, there are small populations of elephants who also live in desert areas.	West Africa and the Congo River Basin, including Ivory Coast, Ghana, Cameroon, Gabon and Democratic Republic of the Congo. They live in evergreen moist deciduous forests and rainforests.
PHYSICAL CHARACTERISTICS		
Largest living land mammal in Asia. Their forehead has two hemispherical bulges; their back is convex; and they have five toes on each forefoot and four on each hind foot. Their trunk has one finger-like tip.	Largest living land mammal in Africa. Their backs are concave and their trunks have two finger-like tips. Their skin appears loose with parallel folds, which create maximum surface area for heat disbursement. The savannah elephant has large ears that are pointed and triangular shaped whose shape resembles the African continent.	Smallest of the three living elephant species. Their ears are rounder and tusks straighter than the savannah elephant's.
AVERAGE WEIGHT		
8,000 pounds	8,000 pounds	4,000-8,000 pounds

- The court pointed out that it was concerned about the animals being taken away from custody of owners even when the legal proceedings were on.
- The Supreme Court said that a provision in the 2017 rule notified by the Centre, allowing the confiscation of the animals of traders and transporters during the pendency of trials in cases under The Prevention of Cruelty to Animals Act, 1960, is contrary to the latter's provisions which allow such confiscation only in case of conviction.
- It asked the government to either change the rule or face a stay from the court.
- SC pointed out that Section 29 of the Act says that a person tried for an offence under the Act can be deprived of the ownership of the animal only upon conviction.
- Section 29, which deals with the "power of court to deprive person convicted of ownership of animal", in clause (1) says that "if the owner of any animal is found guilty of any offence under this Act, the court, upon his conviction thereof, may, if it thinks fit, in addition to any other punishment, make an order that the animal with respect to which the offence was committed shall be forfeited to Government and may, further, make such order as to the disposal of the animal as it thinks fit under the circumstances".

## 5.21.MEE report of 146 national parks wildlife sanctuaries released

- Environment Minister released Management Effectiveness Evaluation (MEE) report of 146 national parks and wildlife sanctuaries in the country, saying 70 per cent of global tiger population and over 60 per cent of leopard population in India is a certificate of its thriving biodiversity.
- It was announced that from this year onwards ten best national parks, five coastal and marine parks and top five zoos in the country would be ranked and awarded every year.

### Key Findings

- West Bengal's Jaldapara national park and Raiganj wildlife sanctuary, Himachal Pradesh's Sainj and Tirthan wildlife sanctuaries as well as the Great Himalayan national park have been declared as top five national parks and wildlife sanctuaries in India.
- Two wildlife's sanctuaries in UP -- Turtle WLS and Jai Prakash Narayan Bird sanctuary -- and one each in Haryana, Assam and Rajasthan ranked as the bottom five.
- At present, India has a network of 903 protected areas covering about five per cent of the total geographic area of the country.
- Management Effectiveness Evaluation (MEE) of Protected Areas (PAs) has emerged as a key tool for PA managers and it is increasingly being used by governments and international bodies to understand the strengths and weaknesses of the protected area management systems.
- MEE is a very important document that provides valuable guidance on various aspects of wildlife and protected areas

- A new framework for MEE of Marine Protected Areas has been also jointly prepared by Wildlife Institute of India (WII) and MOEFCC.
- The assessment process of India's National Park and Wildlife Sanctuaries was adopted from International Union for the Conservation of Nature (IUCN) World Commission on Protected Areas (WCPA) framework of Management Effectiveness Evaluation (MEE).
- There are 30 'Headline Indicators' developed under six elements of MEE framework suitable in Indian context for evaluation.
- Each 'Headline Indicator' had four possible answers, 'poor' (score 2.5), 'fair' (score 5), 'good' (score 7.5) and 'very good' (score 10) to choose for evaluation.
- The total score would be 300 by including a maximum score of all questions.
- The ratings are assigned in four categories, as Poor -- up to 40 per cent; Fair -- 41 to 59 per cent; Good -- 60 to 74 per cent; Very Good -- 75 per cent and above.
- The environment minister also launched the Management Effectiveness Evaluation of Indian Zoos (MEE-ZOO) framework which proposes guidelines, criteria and indicators for evaluation of zoos of the country in a manner which is discrete, holistic and independent.
- The assessment criteria and indicators look beyond the traditional concepts, include issues of animal welfare, husbandry and sustainability of resources and finance.
- The MEE-ZOO exercise is moving towards developing highest standards in zoos across India and adhering to core values of accountability, transparency, innovation, use of technology, collaboration and integrity to achieve the mandate of conservation of endangered species
- India has systematically designated its Protected Areas in four legal categories – National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves under the Wildlife (Protection) Act, 1972.
- Under this Act, India has 903 formally designated Protected Areas with a total coverage 1,65,012.6 square km. Among these are 101 National Parks, 553 Wildlife Sanctuaries, 86 Conservation Reserves and 163 Community Reserves.
- For the survey, 146 National Parks and Wildlife Sanctuaries across 29 states and Union territories were evaluated.

## 5.22. Forest loss 'hotspots' bigger than Germany: WWF

- More than 43 million hectares of forest -- an area bigger than Germany -- have been lost in a little over a decade in just a handful of deforestation hotspots: WWF
- Swathes of forest continue to be flattened each year -- mainly due to industrial-scale agriculture -- as biodiversity-rich areas are cleared to create space for livestock and crops.
- Analysis by WWF found that just 29 sites across South America, Africa and South East Asia were responsible for more than half of the global forest loss.
- The Brazilian Amazon and Cerrado, the Bolivian Amazon, Paraguay, Argentina, Madagascar, along with Sumatra and Borneo in Indonesia and Malaysia were among the worst affected.





- Forests are an enormous carbon sink, together with other vegetation and soil sucking up roughly a third of all the carbon pollution humans produce annually. Yet they continue to disappear rapidly, threatening irreparable losses to Earth's crucial biodiversity.

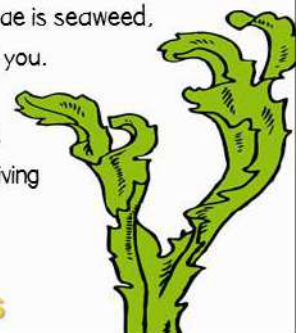
### World Wildlife Fund for Nature

- It is the world's leading conservation organization and works in more than 100 countries. It was established in 1961 and is headquartered at Gland, Switzerland.
- Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth.
- WWF collaborates at every level with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

## 5.23. Seaweeds

- Seaweeds are the primitive, marine non-flowering marine algae without root, stem and leaves, play a major role in marine ecosystems.
- The thousands of species of this organism that vary vastly in size, shape and colour, provide habitats for marine lifeforms and protect them from threats.

A common form of algae is seaweed, which is very good for you. It's high in protein, low in fat and contains a number of health-giving minerals such as iron and calcium.



treetopdisplays

- Large seaweeds form dense underwater forests known as kelp forests, which act as underwater nurseries for fish, snails and sea urchins.
- The herbivorous marine animals also feed on its thallus.
- On their part, the seaweeds derive nutrition through photosynthesis of sunlight and nutrients present in seawater.
- They release oxygen through every part of their bodies.
- Some nutrients found in large waterbodies are toxic to the marine life and can even kill them
- Seaweeds, found mostly in the intertidal region, in shallow and deep waters of the sea and also in estuaries and backwaters, absorb the excess nutrients and balance out the ecosystem.
- They also act as a bio-indicator.
- When waste from agriculture, industries, aquaculture and households are let into the ocean, it causes nutrient imbalance leading to algal blooming, the sign of marine chemical damage.
- These aquatic organisms heavily rely on iron for photosynthesis. When quantity of this mineral exceeds healthy levels and becomes dangerous to marine life, seaweeds trap it and prevent damage.
- Similarly, most heavy metals found in marine ecosystems are trapped and removed by seaweeds.
- They also supply organic nutrients, which they are capable of producing, to other marine lifeforms.
- Seaweed has a significant role in mitigating climate change. By afforesting 9 per cent of the ocean with seaweed, it is possible to sequester 53 billion tons of carbon dioxide annually.
- Hence, there is a proposal termed as 'ocean afforestation' for farming seaweed to remove carbon.
- The importance of seaweed in agriculture and animal husbandry is noteworthy.
- They can be used as fertilisers and to increase fish production.
- Also, when livestock is fed with seaweed, methane emission from cattle may be reduced substantially.
- Additionally, they may be buried in beach dunes to combat beach erosion.
- It is used as an ingredient in preparing toothpaste, cosmetics and paints.
- The southeast Indian state of Tamil Nadu has 1,076km coastline with the convergence of the Bay of Bengal, Arabian Sea and the Indian Ocean.
- The southern Gulf of Mannar's rocky intertidal and lower intertidal regions maintain rich populations of several seaweed species.
- Studies carried out here reveal that there are about 302 species of the marine algae.
- However, some rare species of seaweed clash coral reefs and damage them severely.
- The exotic, invasive *Kappaphycus alvarezii* seaweed being cultivated this region by PepsiCo (an American multinational food, snack and beverage corporation) is posing a serious threat to the coral reefs.
- They have started smothering the coral reefs and slowly killing them.

- In 2005, a government order was issued restricting the cultivation of the exotic species only to the seawaters north of the Palk Bay and south of Thoothukudi coast.
- The forest department is carrying out manual removal of the seaweed annually since 2014 to protect the coral reefs.
- Fisher folk, mostly women, collect tonnes of seaweeds daily around the islands.
- And while doing so, they break the corals.
- Mechanical dredging causes damage to the kelp forests formed by large seaweeds.
- Indiscriminate collection of seaweed also causes severe damage to the useful algae.
- The conservation status of seaweeds is yet to be evaluated by the IUCN.
- Considering the ecological values of seaweeds, it is essential for the central and state governments to initiate speedy and scientific action for sustainable management of seaweeds to conserve them for posterity.

## 5.24. India collected just 3% e-waste generated in 2018, 10% in 2019: CPCB report

- Context: India collected just 10 per cent of the electronic waste (e-waste) estimated to have been generated in the country 2018-19 and 3.5 per cent of that in the generated in 2017-18, said a recent report by the Central Pollution Control Board.

**TN 2<sup>nd</sup> in e-waste generation**

According to a recent study, Maharashtra generates the maximum e-waste in the country, followed by Tamil Nadu. A lowdown...

**Key points of ASSOSCHAM study**

India generates around 2 million tonnes per annum (TPA) of E-waste of which 12% is just telecom equipment

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Out of the **2 million TPA** e-waste generated, only 4.38 lakh TPA is recycled in India

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The low quantum of recycling is due to lack of infrastructure, absence of strong legislative framework etc


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Among Indian states, the largest quantity of E-waste is generated by Maharashtra (19.8%) followed by Tamil Nadu (13%), Uttar Pradesh (10.1%), West Bengal (9.8%), Delhi (9.5%), Karnataka (8.9%), and Gujarat (8.8%)

**What is E-waste?**

The term refers to electronic equipment being thrown away. It includes discarded computer monitors, motherboards, printed circuit boards, mobile phones and chargers, compact discs, headphones, plasma TVs, air conditioners, refrigerators and so on





The chemicals and pollutants generated by E-waste lead to environment and public health issues.

## Key Findings

- India generated 708,445 tonne e-waste in 2017-18 and 771,215 tonne in 2019-20. In 2019-20, the figure rose 32 per cent to 1,014,961 tonne.
- The figures have taken into account the 21 types of electrical and electronic equipments listed in the E-Waste Management Rules, 2016.
- These include discarded computer monitors, mobile phones, chargers, motherboards, headphones, television sets, among other appliances.
- The report mentioned that the collection targets for 2017-18 and 2018-19 based on the rules were 35,422 tonnes and 1,54,242 tonnes, respectively.
- The actual collection, however, was lower in both the years – 25,325 tonnes in 2017-18 and 78,281 tonnes in 2018-19.
- In the guidelines, the environment ministry had made the producers responsible for collection of end-of-life electronic products as part of the Extended Producer Responsibility, in line with the global best practice.
- The pollution board said 1,630 producers were extended EPR authorisation
- Also, 312 dismantlers or recyclers were authorised in the same period with a capacity of processing 782,080.2 tonne of e-waste every year.
- These units processed 69,413 tonnes of e-waste in 2017-18 and 164,663 tonnes in 2018-19.
- In September last year, CPCB issued show-cause notices to 186 producers for not meeting collection targets for 2018-19.
- The pollution control board also pulled up 292 producers in November last year because their collection centres were either non-complying or non-traceable and threatened to cancel their EPR authorisation and take action as per e-waste rules.
- The report also states that the volume of e-waste that a dismantler or recycler was handling increased over time but the shed area of these units remained the same.
- The rule mandates that dismantlers have a space of 300 square metre for a capacity of 1 tonne of e-waste per day. the same for recyclers is 500 square metre.
- The board recognised the role of state pollution control boards and pollution control committees in mitigating this gap and asked them to revise the capacity of such units following CPCB guidelines.

### Why E-Waste A Problem?

- Composed of Hazardous Materials
- Products are quickly obsolete and discarded
- Electronic products are difficult to recycle
- Discarded electronics are managed badly
- Most e-waste goes to Landfills
- Most recyclers don't recycle , they export



## 5.25.Gucci or Morels

# EWASTE AND H

Many of the materials used to make [unclear] at all healthy for us. If they **ultimately** [unclear] (easier than you think), they wreak h



### Electronics Toxins

**Antimony:** Poisonous

**Arsenic:** Poisonous

**Barium:** Gastrointestinal, neurological, and cardiovascular toxin

**Beryllium:** Carcinogenic, Acute Beryllium Disease

**Cadmium:** Carcinogenic, organ toxin

**Chromium:** Organ toxin, carcinogenic

**Dioxins:** Carcinogenic

**Lead:** Central and peripheral nervous system toxin

**Mercury:** Central nervous system and endocrine system toxin

**Nickel:** Carcinogenic, respiratory toxin

**Polychlorinated Biphenyls (PCBs):** Blood, skin, and organ toxin

**Polyvinyl chloride (PVC):** Organ toxin, endocrine disruptor

Mouth, teeth, and gum damage; thyroid damage

High blood pressure, irregular heartbeat

Lung damage, asthma, bronchitis, cancer

Kidney, liver, digestive system damage; fetus neurological damage; ulcers

Skin cancer, paralysis

DEATH

- Morels, are mushrooms from the Morchella family and are distinguished from other mushrooms by their spongy, honeycombed heads, a rather unsavoury looking mass of pleats and pits that actually contain vast amounts of savoury flavour.
- They grow in conifer forests across temperate regions, and the cool foothills of the Himalayas, in Himachal, Uttarakhand and Jammu & Kashmir

- They grow best during the rains, but it can take months before enough can be collected, dried and brought to the market.
- The annual production of the wild mushroom in J&K is about 45 tonnes.
- Although primarily obtained from the forests and pastures of Doda district, it is also found in the high-altitude areas of Kupwara, Pahalgam, Shopian, Kishtwar and Poonch.
- A few attempts have been made to cultivate it in farms.

### **Nutrition value**

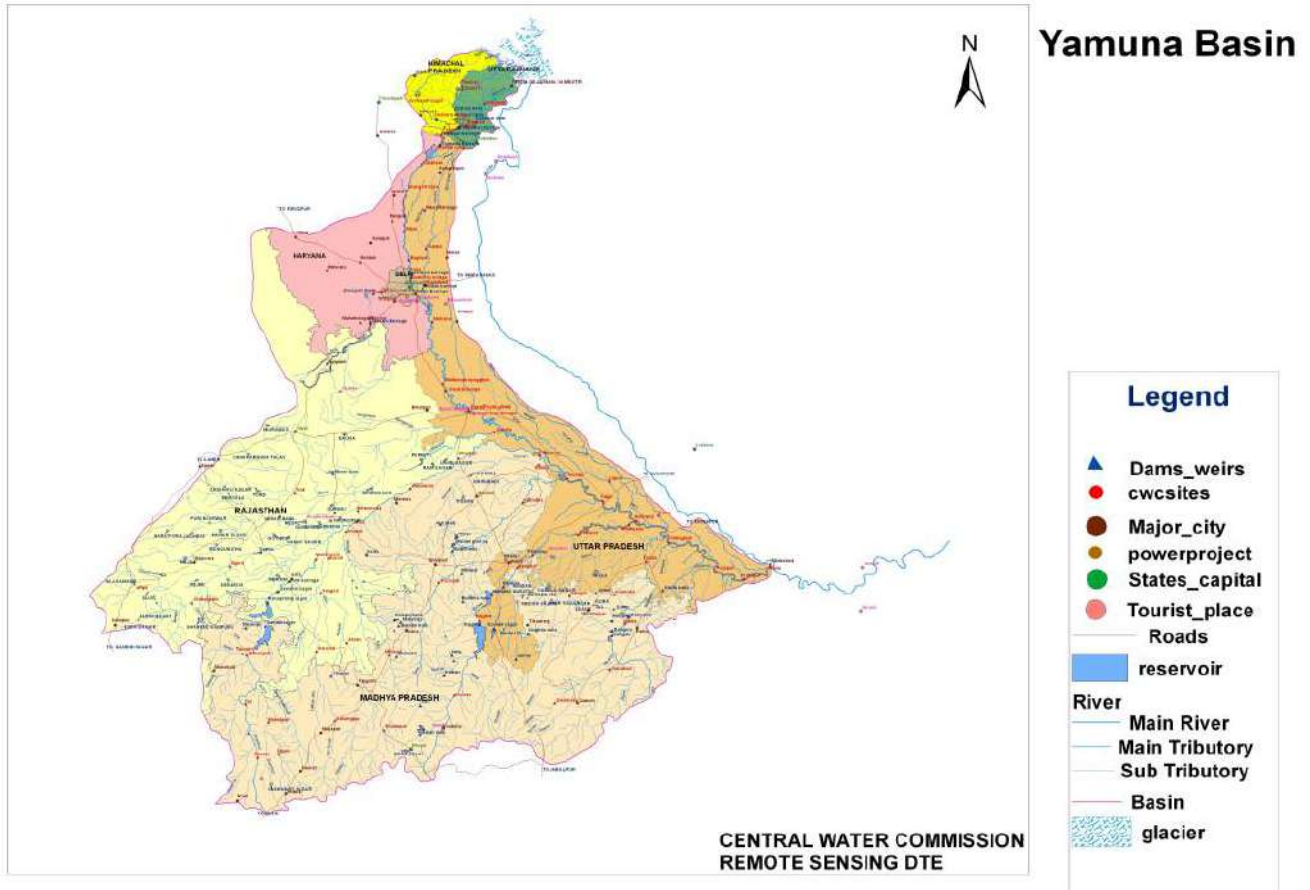
- The mushrooms are cherished for their antioxidant and antimicrobial properties.
- They are also considered a rich source of protein, carbohydrates and Vitamin B.
- J&K is seeking GI tag for it and will benefit local farmers trying to grow them on their farms.

### **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.
- 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.
- Any association of persons, producers, organisation or authority established by or under the law can be a registered proprietor.
- Their name should be entered in the Register of Geographical Indication as registered proprietor for the Geographical Indication applied for.
- The registration of a geographical indication is valid for a period of 10 years.
- It can be renewed from time to time for further period of 10 years each.
- 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.

## **5.26.SC seeks status report on Yamuna water quality**

- **Context:** The Supreme Court sought a status report from the National Green Tribunal-appointed River Yamuna Monitoring Committee led by former Delhi Chief Secretary Shailaja Chandra about its recommendations to improve the quality of water and the extent to which the States have implemented their suggestions.
- The Supreme Court had, on January 13, taken suo motu cognisance of the contamination of rivers by sewage effluents through lapses committed by municipalities, saying “open surface water resources including rivers are the lifeline of human civilisation”.



For State Boundary refer to Survey of India Maps

- The suo motu PIL was registered after the Delhi Jal Board, accused Haryana of discharging pollutants into the Yamuna, due to which there was an alarming increase in ammonia levels.
- The PIL titled “Remediation of polluted rivers” was registered and the court had issued notices to the Centre, the Ministries of Environment and Housing and Urban Affairs and the Central Pollution Control Board (CPCB).
- The court had also sought response from Uttarakhand, Himachal Pradesh, Haryana, Delhi and Uttar Pradesh.
- Later Madhya Pradesh and Rajasthan were also included as parties.

### Reasons of excessive pollution

- The sewage treatment plants of Delhi are major contributors of the Pollutants being discharged in the river.
- Pollutants discharge from different types of industry is also a major issue.
- Agriculture activities along the banks of the river in Delhi contributes to river pollution.



- Agricultural waste and pesticide discharge from the Haryana field also contributes to the pollution.
- The low volume of water flow in the river causes the pollutants to accumulate and raise the pollution level.
- The river Yamuna is a major tributary of river Ganges.
  - ✓ Originates from the Yamunotri glacier near Bandarpooch peaks in the Mussoorie range of the lower Himalayas in Uttarkashi district of Uttarakhand.
  - ✓ It meets the Ganges at the Sangam in Prayagraj, Uttar Pradesh after flowing through Uttarakhand, Himachal Pradesh, Haryana and Delhi.
  - ✓ Tributaries: Chambal, Sindh, Betwa and Ken.

## 5.27. Indian Star Tortoises

- The Forest Department authorities seized as many as 414 live endangered Indian Star Tortoises from a gang that was smuggling from Samalkota area in East Godavari district to Malkangiri district in Odisha State by a van.
- The cases under the Wildlife (Protection) Act, 1972 have been registered against them as smuggling of the Indian Star Tortoise attracts punishment under the Schedule-1 of the Wildlife (Protection) Act, 1972.
- The tortoises are being exported to Odisha State for 'consumption' purpose as per the preliminary investigation.
- The Indian star tortoise is of medium size for a tortoise and is found in the arid and dry forests in India and Sri Lanka.
- Its name comes from the star-like patterns that feature on its high-domed shell.
- Because of these very distinctive patterns and its highly rounded shell, the Indian star tortoise is popular in the world's trade in exotic pets.
- The attractive markings on its shell, aside from looking very pretty, serve to help this tortoise more easily blend in with its surroundings, by breaking up the hard edge of the shell, so when the tortoise is grazing, it is not so obvious to predators passing by.
- This species lives in three separate parts of the Indian subcontinent: western India and the extreme southeast of Pakistan (e.g., Gujarat, Uttar Pradesh and Rajasthan in India, as well as the Thar Desert in Pakistan), in southeastern India (Kerala, Karnataka, and Tamil Nadu), and on Sri Lanka.
- They occupy a wide variety of habitats, including semi-arid lowland forests, moist deciduous forest, thorn scrub forests, semi-desert and arid grasslands.
- This species has a high tolerance for habitats that are seasonally wet or dry, many populations inhabiting areas with a monsoon or rainy season followed by a long hot and dry period. Sometimes they live in agricultural areas.
- Natural threats to this species are predation and flooding, but humans have drastically reduced their numbers through loss of habitat and collection for food and for the exotic pet trade.
- In much of India, Indian star tortoises are important as a food source.



- They are also an ingredient in traditional Chinese medicine, and they are susceptible to disease, particularly pneumonia, respiratory diseases, and overgrowth of parasites when stressed by handling, collection and shipment, often under inhumane conditions.
- Many specimens caught to be sold as pets will die from unsuspected disease.
- The IUCN Red List and other sources do not provide the Indian star tortoise total population size.
- Currently this species is classified as Vulnerable (VU) and its numbers today are decreasing.
- Being herbivores in their habitats when abundant Indian star tortoises may act as dispersal agents for various plants via consumption of seeds and fruit.

## 5.28. UN urges nations to scale up climate change adaptation to avoid major economic loss

- Governments across the world must significantly scale up climate adaptation measures to avoid major economic damage from global warming, according to the fifth edition of the UN Environment Programme Adaptation Gap report.

### Key Findings

- Nations must put half of all global climate financing towards adaptation in the next year in order to avoid the worst impact of climate change.
- In 2020, the hottest year on record, on par with 2016, the world experienced record-breaking hurricanes and wildfires that continue to intensify as temperatures rise.
- Such a commitment would include investing in nature-based solutions to mitigate climate change, such as practices like replanting trees on degraded land, sequestering more carbon in soil through agricultural practices and protecting forests through changing logging practices.
- Nearly 75% of nations have adopted some form of climate adaption.
- But major gaps remain in financing for developing countries, which are most vulnerable to rising temperatures, as well as projects that have notably reduced climate risk
- The UN estimated that yearly climate adaption costs could reach between \$140 billion and \$300 billion by the end of the decade and between \$280 billion and \$500 billion by 2050, and concluded that global action is lagging far behind.
- And while climate adaption projects are on the rise, the ongoing surge in global carbon emissions is putting those projects in jeopardy.
- Under the Paris Climate Agreement, the global pact forged five years ago among nearly 200 nations, governments are attempting to keep global warming well below 2 degrees Celsius, or 3.6 degrees Fahrenheit, compared with preindustrial levels.
- The world is still on track for temperatures to rise over 3 degrees Celsius, or 5.4 degrees Fahrenheit, this century.
- The report said that achieving the 2 degrees Celsius target could limit economic loss in annual growth of up to 1.6%, compared with 2.2% for warming of 3 degrees Celsius and urged nations to updates
- their targets under the Paris accord to include new net-zero carbon goals.

- The report also called for governments prioritize climate change in their Covid-19 economic recovery plans, including a shift away from fossil fuels and toward investing in green technologies and restoring ecosystems.
- The world's largest economies have committed more than \$12 trillion in recovering economies, according to the International Monetary Fund.

## 5.29.Garuda

- Context: A team of young Garuda Saviours from Bihar has successfully convinced local villagers not to cut old trees and to plant saplings to increase the numbers of trees favoured by the Greater Adjutant Stork
- The birds, locally known as the Garuda, help farmers by killing rats and other farm pests.
- The scientific name for the endangered Greater Adjutant Storks is (*Leptoptilos dubius*).

### Endangered species

- Once found across South and Southeast Asia, the Greater Adjutant is one of the most threatened stork species in the world.
- It is classified as endangered on the International Union for Conservation of Nature's Red List of threatened species and listed under Schedule IV of the Indian Wildlife (Protection) Act, 1972.
- There are only three known breeding grounds – one in Cambodia and two in India – in Assam and in Kadwa Diara, Bihar.
- The English name of the stork, which has a large wedge-shaped bill and a prominent neck pouch, is derived from its stiff soldier-like gait.
- The global population of Greater Adjutant Storks is estimated at 800-1,200.
- The bird population has fallen over the years largely because of the presence of plastic in garbage.
- There have been many instances of the scavenger birds dying after ingesting plastic bags.

### Community conservation

- But in Bihar, the discovery of breeding pairs and the growth in numbers since 2007 are the happy stories of conservation.
- A research paper presented in February 2020 at the Convention on Conservation of Migratory Species, Conference of Parties (CMS COP 13), in Gandhinagar credited the work of local community conservation groups for this turnaround.
- Earlier the local community was not greatly troubled by the felling of trees where the birds nested, the presence of electrical installations in the vicinity of nesting grounds, or the falling of nests and chicks.
- But now children inform adults if they spot a stranger or an animal near a nest. Farmers and village women keep an eye out, too.
- The farmers are aided by the birds' diet: The storks eat rats, snakes and insects that harm crops

### Religious icon

- Garuda is considered the mount of Vishnu, one of Hinduism's prime deities.
- The campaign to save the bird stresses on this aspect. Some villagers worship the bird and call it "Garuda Maharaj" or "Guru Garuda".
- Gulgulia is the name of a nomadic community whose traditional occupation is hunting are a major threat to the bird.

### **Government support**

- In 2015, the Bihar government started supporting the conservation of Greater Adjutant Storks and a rescue and rehabilitation centre was set up at Sundervan in Bhagalpur.
- A temporary rescue centre has also been set up in the breeding zone where people can administer first aid to injured birds. W
- hen the birds recover, they are released in their natural habitat.
- Local environment protection bodies and the state forest department have tried to encourage the community conservation groups by naming them "Garuda Saviours".

Picture Courtesy: Subhasis Dey

# Greater Adjutant Stork



Scientific Name: *Leptoptilos dubius* Family: Ciconiidae

Height:  
Approximately 47 - 60 inches (120 - 152 cm) tall and wingspan of about 98 inches (250 cm).

Weight:  
Mass is unknown in the wild. In captivity, juvenile weigh 8 to 11 kg.

Habitat:  
Inhabit wetland habitats marshes, lakes, swamps, mangroves, river beds, stagnant pools and paddy fields; as well as grasslands and fields.

Distribution:  
Formerly found in South and Southeast Asia, but there are now just two small and separate breeding populations; one in Assam, India and one in Cambodia.

Diet:  
The greater adjutant is omnivorous and often eats carrion and can swallow and digest large bones.

Threats:  
Direct exploitation, particularly at nesting colonies, habitat destruction, drainage, pollution and over-exploitation of wetlands.

Trade:  
Adult birds are hunted and chicks and eggs are collected for trade.

Conservation Status  
Indian Wildlife Protection Act: Schedule IV  
IUCN Status: Endangered CITES: No special status

Poster No.: SACON/ENVIS/021 / 25-05-2016



ENVIS Centre on  
wetland ecosystems including inland wetlands

Poster Concept by: Dr. Gopin (author), Dr. J. Harinobha, Ms. A. Jijitha Begum and Dr. M. Anura. Design by: Ms. A. Anitha Begum. Wetland Ecology, Inland Water Quality and Wetland Use, 11th Annual Conference, Research Institute, Centre for the Environment, 2016-2017. Published by: Dr. Subhojit Bose, SACON/ENVIS/021/ENVIS Centre, School of Environmental and Natural Resource Science, Indian Institute of Technology, Kharagpur, India. Date: 11. 01.2018. Phone: 999 82221, www.sacon.res.in, e-mail: sacon@iitkgp.ac.in

## 6. Science & Technology

Click on the links given below to watch the following questions on YouTube

- [Video 1](#)
- [Video 2](#)
- [Video 3](#)
- [Video 4](#)

### 6.1.Plant-based mock egg

- Context: The plant-based mock egg by a Professor, Centre for Rural Development and Technology, IIT Delhi has secured first prize at Innovate4SDG contest by 'UNDP (United Nation Development Program) Accelerator Lab India'.
- The award includes a sum of \$5000.
- According to the UNDP, the mock egg innovation will help in accelerating progress towards the SDGs.
- The development of the mock egg meets the protein needs of the diet-specific, health conscious, vegan and vegetarian people.
- This innovation addresses SDG 2 and 3 (zero hunger and good health and well-being).
- The plant based textured foods which resemble egg, fish and chicken have been developed with an aim to address malnutrition and clean protein food for people.
- The mock egg has been developed from very simple farm-based crop proteins, which not only looks and tastes like egg but also very close in nutritional profile to a poultry egg.
- Apart from the egg, the IIT Delhi scientist has also developed the meat analogues for chicken and fish from plant sources using fruits and vegetables.
- The products were tested on various parameters including appearance, taste, bite-size, texture, aroma, flavor, shelf life, nutritional profile and customer preference.

### JUST LIKE THE REAL THING

MOCK MEAT	PROCESS
<ul style="list-style-type: none"> <li>➤ Mung beans omelette, developed by an IIT team, wins UNDP Accelerator Lab India's Innovate4SDG contest</li> <li>➤ The team has also developed mock chicken patties and fish</li> <li>➤ Mutton, turkey, pork and beef being developed</li> </ul>	<ul style="list-style-type: none"> <li>➤ Identify plants with high-protein content</li> <li>➤ These include mung beans and indian fruits and vegetables</li> <li>➤ Extraction of proteins from these plants in the laboratory</li> <li>➤ Testing of the extracted protein for toxicity and bio-absorbability</li> <li>➤ Checking the alternative for texture, bite-size, nutrition, aroma and taste</li> </ul>



## 6.2. New coronavirus strain in UK

- Context: Scientists in the United Kingdom have described a newly identified variant of the coronavirus that appears to be more contagious than, and genetically distinct from, more established variants.

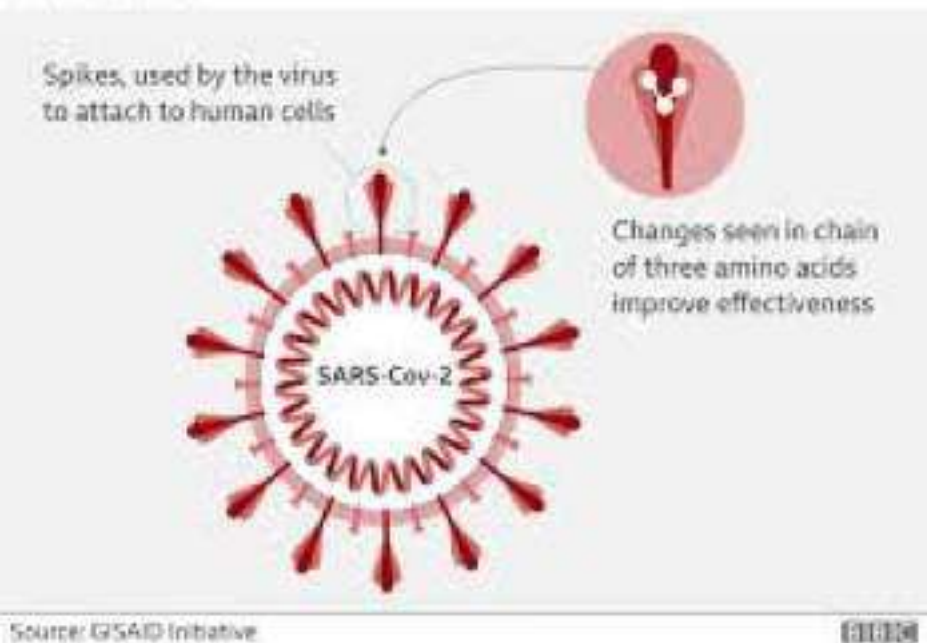
### Is the UK variant some kind of new supervirus?

- No. It's just one variation among many that have arisen as the coronavirus SARS-CoV-2 has spread around the world.
- Mutations arise as the virus replicates, and this variant – known as B.1.1.7 – has acquired its own distinctive set of them.

### Will the variant render the new vaccines ineffective?

- No. Most experts doubt that it will have any great effect on vaccines, although it's not yet possible to rule out any effect.
- The U.S. Food and Drug Administration has authorized two vaccines, one from Moderna and the other from Pfizer and BioNTech.
- Both vaccines create immunity to the coronavirus by teaching our immune systems to make antibodies to a protein that sits on the surface of the virus, called spike.

### One coronavirus mutation has become dominant



- The spike protein latches onto cells and opens a passageway inside.
- Antibodies produced in response to the vaccines stick to the tip of the spike.
- The result: The viruses can't get inside.
- It is conceivable that a mutation to a coronavirus could change the shape of its spike proteins, making it harder for the antibodies to gain a tight grip on them.
- And B.1.1.7's mutations include eight in the spike gene.
- But our immune systems can produce a range of antibodies against a single viral protein, making it less likely that viruses can easily escape their attack.
- Right now, experts don't think that the variant will be able to evade vaccines.

### Is it more contagious than other viruses?

- It appears so.
- In preliminary work, researchers in the U.K. have found that the virus is spreading quickly in parts of southern England, displacing a crowded field of other variants that have been circulating for months.
- However, a virus lineage becoming more common is not proof that it spreads faster than others.
- It could grow more widespread simply through luck.
- For instance, a variant might start out in the middle of a crowded city, where transmission is easy, allowing it to make more copies of itself.

### here did this unusual variant come from?

- One possibility is that the variant gained its array of new mutations inside a special set of hosts.
- In a typical infection, people pick up the coronavirus and become infectious for a few days before showing symptoms.
- The virus then becomes less abundant in the body as the immune system marshals a defense.
- Unless patients suffer a serious case of COVID-19, they typically clear the virus completely in a few weeks at most.
- Over time, researchers have found, natural selection can favor mutant viruses that can evade the immune system.

## 6.3.India looks at integrating more countries into coastal radar network

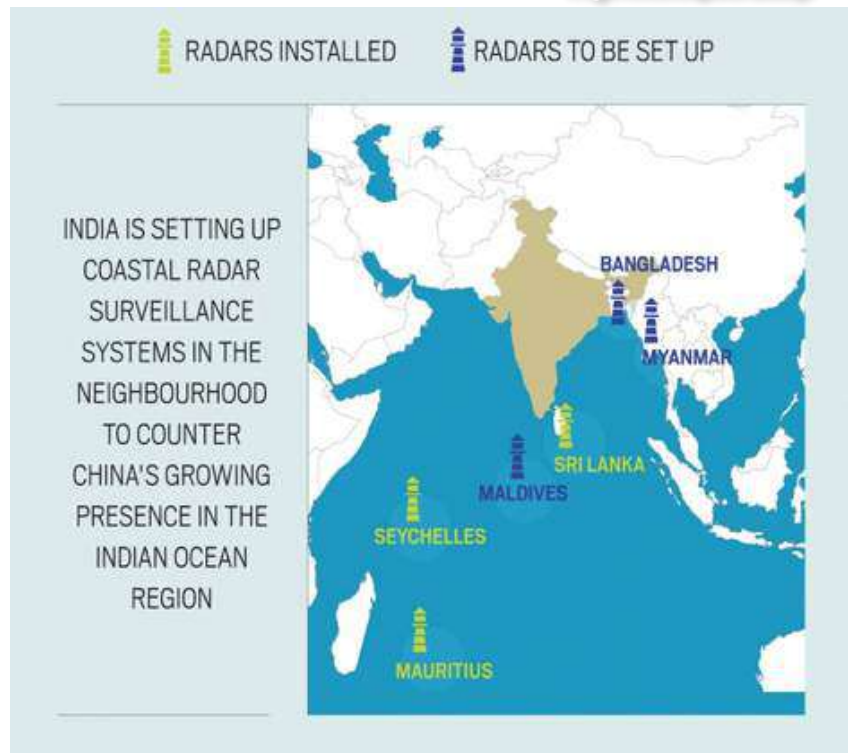
- Context: As part of efforts to further expand the coastal radar chain network meant to enable real time monitoring of the high seas for threats as also expand India's assistance for capacity building to Indian Ocean littoral states, efforts are in advanced stages to set up coastal radar stations in Maldives, Myanmar and Bangladesh.
- Mauritius, Seychelles and Sri Lanka have already been integrated into the country's coastal radar chain network.
- Similar plans are in the pipeline with Maldives and Myanmar and discussions are ongoing with Bangladesh and Thailand.

### Nodal agency

- The Indian Navy's Information Management and Analysis Centre (IMAC) located in Gurugram which was set up after the 26/11 Mumbai terror attacks is the nodal agency for maritime data fusion.
- As part of information exchange regarding traffic on the high seas, the Navy has been authorised by the government to conclude white shipping agreements with 36 countries and three multilateral constructs.
- So far agreements have been concluded with 22 countries and one multilateral construct.
- Of these, 17 agreements and the one multilateral construct have been operationalized.

## Info Fusion Centre

- At the Navy's Information Fusion Centre for the Indian Ocean Region (IFC-IOR) which is meant to promote Maritime Domain Awareness, three more International Liaison Officers (ILO) are expected to join soon.
- ILOs from France, Japan and the U.S. have already joined the centre.
- IFC-IOR had established itself as the hub of maritime security information in the IOR through white shipping exchange agreements with 21 countries and 20 maritime security centres.
- ILOs from 13 countries had been invited, and three ILOs had joined the centre, with 3 more likely to join shortly.
- Under Phase-I of the coastal radar chain network, 46 coastal radar stations have been set up across the country's coastline.
- Under Phase-II of the project, which is currently under way, 38 static radar stations and four mobile radar stations are being set up by the Coast Guard and is in advanced stage of completion.

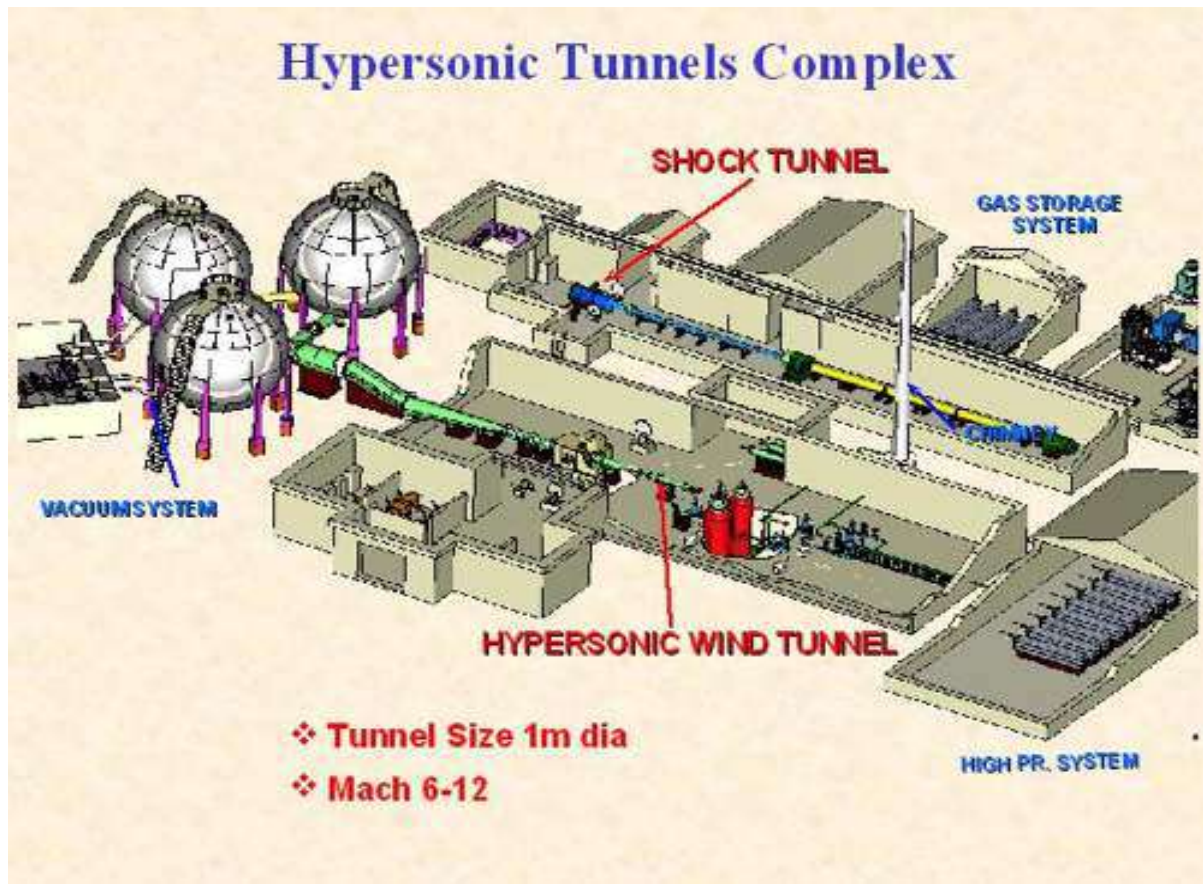


## 6.4.Hypersonic Wind Tunnel Test Facility

- Context: Defence Minister inaugurated the Advanced Hypersonic Wind Tunnel (HWT) test facility at the DRDO's Dr. APJ Abdul Kalam Missile Complex Hyderabad.
- The state-of-the-art HWT test facility is a pressure vacuum driven enclosed free jet facility having nozzle exit diameter of one metre.
- It will simulate Mach No. 5 to 12 speeds. (Mach represents the multiplication factor to the speed of sound.)
- India is the third country after the United States and Russia to have such a large facility in terms of size and operating capability.
- It is an indigenous development and an outcome of synergistic partnership with local industries.
- The facility has the capability to simulate hypersonic flow over a wide spectrum and will play a major role in the realisation of highly complex futuristic aerospace and defence systems.
- Foundation stone for the Explosive Test Facility for Propellant and Explosive Systems was also laid.
- This facility will be used for design validation and evaluation of missile sub-systems under different environmental conditions.



- The DRDO labs showcased various indigenously developed systems and technologies in wide ranging areas, including missiles, avionics systems, advanced materials, electronic warfare, quantum key distribution technology, directed energy weapons, Gallium Arsenide and Gallium Nitride technology capabilities.



- It has multiple capabilities including neutralizing ground targets and anti-drone applications to counter stationary as well as high-speed moving targets.
- Key features of the weapon system include secure communication link, effective recoil management system, high firing angular resolution and vision-based target detection and tracking.
- The recent successful missions by various clusters of DRDO are the Hypersonic Technology Demonstration Vehicle (HSTDV), Anti-Radiation Missile (RUDRAM), Quick Reaction Surface to Air Missile (QRSAM), Supersonic Missile Assisted Release Torpedo (SMART) and Quantum Key Distribution (QKD) technology in the last six months.

## 6.5. Standards For Fortification Of Processed Food Products

- Companies can fortify their products with micronutrients voluntarily
- After setting fortification standards for staples, the Food Safety and Standards Authority of India (FSSAI) has notified norms for permissible levels of micronutrients for fortifying processed food products such as breakfast cereals, biscuits, breads, etc
- Companies that make such products can fortify them with micronutrients voluntarily.
- Also, products that are high in fat, salt and sugar will be “excluded” from the fortified processed foods category.

- Fortified Processed Foods may have fortified staples as raw materials and/or fortified with permitted micronutrients and additives as specified under the Food Safety and Standards (Food Product Standards and Food Additives) Regulation, 2011

### Permissible levels

- The Fortified Processed Food shall provide 15-30 per cent of the Indian adult RDA (Recommended dietary Allowance) of micronutrient, based on an average calorie intake of 600 kcal from processed foods (approximately a third of daily energy requirement for an adult).
- This has been done to ensure balanced consumption of micronutrients fortified products.
- Companies will be able to fortify the products with iron, folic acid, zinc, vitamin B12, vitamin A, among other micronutrients.
- The notification has defined the levels of these vitamins and minerals per 100 gm.
- For instance, iron levels have been set at 1.4-1.7 mg per 100 gms of cereals.
- These norms are part of the Food Safety and Standards (Fortification of Foods) First Amendment Regulations, 2020, and will come into effect from July 1, 2021.
- Similarly, permissible levels of nutrients such as iron, zinc, vitamin B1, vitamin B12 and vitamin B3 have been specified in the regulations for biscuits, rusks, breads and buns.
- Fruit juices when fortified shall contain Vitamin C at the levels of 6-12 mg per 100 ml.
- Already, many packaged food companies sell products fortified with vitamins and minerals. They will need to ensure they are in compliance with the norms.
- The FSSAI had also released a draft notification seeking stakeholder comments on making fortification with vitamin A and vitamin D mandatory for edible oils and milk.
- In 2018, FSSAI had notified standards of fortification for five staple product categories – milk, edible oil, rice, flour and salt.
- It has also launched the 'F+' logo to be displayed on labels of fortified food products for easy identification by consumers.

## 6.6.Mission AI Project

- Context: The government aims to provide access to high-class artificial intelligence tools and skills training for youth to make them future-ready.

### Training the Future Workforce

- For this project, MeitY will be working closely with Niti Aayog, India's public think tank.
- Last year, a committee headed by the principal scientific advisor to the prime minister, K Vijayraghavan was set up to build a road map to decide the implementation of this mission.
- A budget of Rs 7,000 crore was also put forward by Niti Aayog to set up five centres of research excellence along with 20 institutional centres for transformational AI and cloud computing platform called AIRAWAT.
- MeitY also proposed a Rs 400 crore worth plan for setting up a National AI Program.

- As per the latest developments, both entities would work together to implement this mission program, and a fresh proposal drafting is underway.
- Premium institutes such as IIT will be involved in the research apart from incorporating industry inputs and collaborations.
- The government-run centres of excellence in AI, augmented reality, fintech, and agritech will all be subsumed under this mission.

### Other Government Initiatives For AI Training

- The government has been actively pushing for AI-based training to bring future-readiness for the youth.
- One such initiative is the 'Responsible AI for Youth' program for students studying in classes 8-12 in central and state government schools.
- Launched to reduce the skill gap in students and make them 'AI-ready', this program will select eligible students based on online training sessions.
- Under this program, students will be taught to identify AI-based ideas and innovations that could impact social issues. 100 top ideas will be shortlisted, and these students will also get a chance to enroll in boot camps and special sessions for a deeper understanding of AI.
- This program is also closely tied with the National Education Policy that was rolled out this year.
- In another initiative for working professionals and fresh graduates, the government had launched the [ai.gov.in](https://ai.gov.in), India's national artificial intelligence portal, last year.
- This is a repository of AI-related developments in India, including information on startups, innovations, companies, education institutions related to AI in India along with related case studies, study material, and research reports.

### Top Programming Languages For Blockchain Development

- The government is also in the process of setting up its first AI-specific cloud computing infrastructure AIRAWAT based on the recommendation of the National Strategy for Artificial Intelligence (NSAI).
- This platform will accelerate and enhance research in the new and emerging technologies, specifically in the field of AI.
- With AIRAWAT, the government intends to deal with high-impact challenges that accompany a lack of access to computing resources.
- It includes: multi-user compute support, dynamic computing environment, ML/DL software stack, low latency-high bandwidth network, among others.

## 6.7. Alcohol And Cold Wave

- Context: Predicting a severe cold wave in the national capital and several other parts of North India, the Indian Meteorological Department (IMD) issued an impact-based advisory to avoid alcohol.
- According to the IMD, severe cold wave conditions are likely in parts of Haryana, Punjab, Uttar Pradesh, Delhi and Rajasthan from December 29 onward.
- Maximum temperature is also forecast to fall by 3 to 5 degrees Celsius after December 28.

### **What did the IMD say in its recent impact-based advisory?**

- IMD said the weather conditions were likely to increase the risk of contracting illnesses like the flu, and could also lead to symptoms like runny/stuffy nose and nosebleeds, which usually set in or are aggravated due to prolonged exposure to the cold.
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- Hypothermia is a severe medical condition where the body loses heat before it can generate it, resulting in a dangerously low body temperature.
- While normal body temperature lies at around 37 degrees Celsius, the body temperature of a person suffering from hypothermia drops to below 35 degrees Celsius.
- Common signs include shivering, slow rate of breathing, slurred speech, cold skin and fatigue.
- Heavy alcohol consumption is often linked to an increased risk of hypothermia and other conditions linked to extreme cold weather.
- Alcohol has psychological and behavioural effects, which can impact a person's ability to correctly perceive how cold it is.
- Hence, cases of people succumbing to hypothermia after drinking heavily and passing out outdoors are very commonly reported in places with extreme cold weather.

### **How does alcohol reduce your body temperature?**


- Alcohol is a vasodilator, which means that it causes blood vessels to relax and dilate or open.
- So after consuming alcohol, the volume of blood brought to the skin's surface increases, making you feel warmer as a result.
- This is also what causes an intoxicated person to look flushed.
- As the body begins to believe that it is warm, you also start to sweat – a reaction that automatically reduces overall body temperature.
- Drinking copious amounts of alcohol may affect your bodies ability to detect the cold properly, which is in place to protect you from frostbite and hypothermia.
- However, experts say drinking moderately in temperate environments does not significantly affect the core temperature of the body.

## What is a cold wave?

- A cold wave occurs when the minimum temperature dips to 10 degrees Celsius or less and the departure from normal temperature is 4.5 degrees Celsius or lower.
- In severe cold wave conditions, departure from normal temperature is 6.5 degrees or lower.

# MERCURIAL METER

Some of the new and cross-country benchmarks are listed below. Earlier, they used to vary from state to state

HEAT WAVES		COLD WAVES
Based on departure from normal		Based on departure from normal
<b>Heat wave:</b> 4.5°C to 6.4°C above normal maximum		<b>Cold wave:</b> 4.5°C to 6.4°C below normal minimum
<b>Severe heat wave:</b> More than 6.4°C above normal maximum		<b>Severe cold wave:</b> Anything more than 6.4°C below normal minimum
Based on actual maximum temperature		Based on actual minimum temperature
<b>Heat wave:</b> Temperature equal or greater than 45°C		<b>Cold wave:</b> Minimum temperature is 4°C or lower
<b>Severe heat wave:</b> Equal or greater than 47°C		<b>Severe cold wave:</b> Minimum temperature is 2°C or lower
<b>Warm night:</b> (Will apply only when maximum temperature remains 40°C or more) Minimum temperature departure is 4.5°C to 6.4°C		<b>Cold day:</b> (Applies when minimum temperature is 10°C or lower in plains and 0°C or lower in hilly regions) Maximum temperature departure is minus 4.5°C to minus 6.4°C
<b>Very warm night:</b> Minimum temperature departure is above 6.4°C		<b>Very cold day:</b> Maximum temperature departure is greater than minus 6.4°C

## 6.8. First Indigenous Vaccine Against Pneumonia

- Context: The first indigenous vaccine against pneumonia, developed by Serum Institute of India (SII), is slated to be launched and made available in the domestic market.
- The vaccine will be much more affordable than existing ones manufactured by two foreign companies.
- India's drug regulator in July had granted market approval for the Pneumococcal Polysaccharide Conjugate vaccine, after reviewing the submitted phase 1, 2 and 3 clinical trial data.
- This vaccine is used for active immunisation against invasive disease and pneumonia caused by "Streptococcus pneumonia" in infants.

- Serum Institute has conducted the phase 1, 2 and 3 clinical trials of the vaccine in India and African nation Gambia.
- It is in line with 'vocal for local' and 'Making in India' for the world and Atmanirbhar Bharat
- As per UNICEF data, more than one lakh children under the age of five years die every year in India due to the pneumococcal disease.
- Since pneumonia is a respiratory ailment, hence vaccination of children with the pneumococcal conjugate vaccines (PCV) assumes utmost significance during the current COVID-19 pandemic.
- The vaccine which is administered in an intramuscular manner was prequalified by WHO.

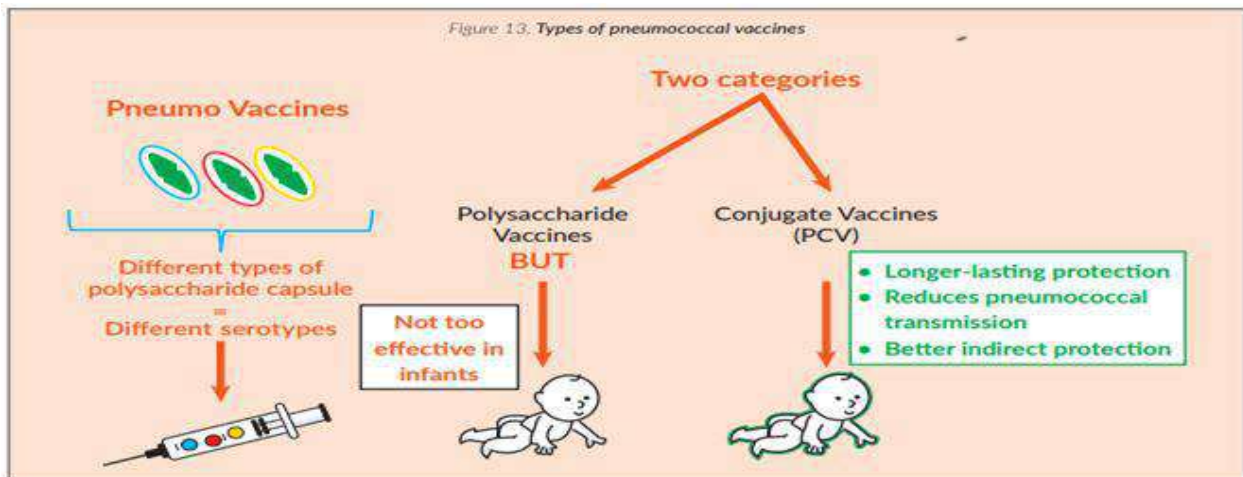
### **What is the Pneumococcal Conjugate Vaccine (PCV)?**

- Pneumococcal conjugate vaccine is used to protect infants, young children, and adults against disease caused by the bacterium *Streptococcus pneumoniae*.
- It contains purified capsular polysaccharide of pneumococcal serotypes conjugated to a carrier protein to improve antibody response.
- The World Health Organization (WHO) recommends the use of the conjugate vaccine in routine immunizations given to children.
- PCV has demonstrated effectiveness in reducing incidence and severity of pneumonia and other lower respiratory infections in children.
- PCV is already being used in the national immunization program of more than 141 countries (as of September 2017).
- PCV was introduced in India's UIP in a phased manner from June 2017 onwards.
- PCV is made up of sugars (polysaccharides) from the capsule of the bacterium *Streptococcus pneumoniae*.
- In PCV, each polysaccharide is attached, or conjugated to, a carrier protein. The carrier protein is selected to improve the immune response in those vaccinated.
- PCV has been shown to protect very young children starting at 6 weeks of age when infants are most at risk of infection.
- It protects against severe forms of pneumococcal diseases, such as pneumonia, meningitis and bacteremia.

### **What is the Pneumococcal disease?**

- It is the name given to a group of diseases caused by a bacterium called *Streptococcus Pneumoniae* (also known as pneumococcus) different types of diseases caused by pneumococcus Diseases caused by pneumococcus (*Streptococcus pneumoniae*) are:
  - ✓ Pneumonia: Inflammation of the lungs, It is a form of acute respiratory infection that causes inflammation or fluid in the lungs. It makes breathing difficult and limits oxygen intake.
  - ✓ Bacteremia/sepsis: bloodstream infection, with or without infection of secondary sites, e.g., meningitis,
  - ✓ Bacterial meningitis: infection of the membranes that cover and protect the spinal cord and brain

✓ Otitis media: Middle ear infection.



## 6.9. 'Tihan-IIT' - Testbed For Autonomous Navigation Systems

- Context: The Department of Science and Technology has sanctioned ₹135 crore to IIT Hyderabad under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to set up a Technology Innovation Hub on Autonomous Navigation and Data Acquisition Systems.
- The Technology Innovation Hub on Autonomous Navigation Systems for Unmanned Aerial Vehicles and Remotely Operated Vehicles at IIT Hyderabad, known as 'TIHAN Foundation' has been incorporated as a Section-8 company by the institute in June 2020.
- It is a step towards 'Aatmanibhar Bharat' with a focus on the R&D of interdisciplinary technologies in the domain of Autonomous Navigation and Data Acquisition Systems.
- This hub focuses on addressing various challenges hindering the real-time adoption of unmanned autonomous vehicles for both terrestrial and aerial applications.
- One major requirement to make unmanned and connected vehicles more acceptable to the consumer society is to demonstrate its performance in real-life scenarios.
- It is dangerous to directly use the operational roadway facilities as experimental test tracks for unmanned and connected vehicles.
- Both UAV and UGV testing may include crashes and collisions with obstacles, resulting in damage to costly sensors and other components.

**WILL HELP REPLICATE REAL-LIFE SCENARIOS**

- The new hub has been established in two acres of land within the campus and the facilities are planned in phases
- It will facilitate research grounds to investigate the functioning of unmanned and connected vehicles in a controlled environment
- It will help replicate different scenarios, ranging from frequently occurring to extreme cases that may ensue in real-life traffic operations
- All smart poles within the institute are enabled with communication providing technology with some poles designed with sprinklers to simulate rain scenario

- Hence, it is important to test technologies developed in a safe, controlled environment before deployment.”
- The hub's focus sectors include Intelligent, Autonomous Transportation and Systems, Agriculture, Surveillance, and Environmental & Infrastructure Monitoring.
- The developed testbed will be available for use by industries, R&D labs, academia conducting research and development in the broad areas of autonomous navigation.

## 6.10.Draft 5th National Science, Technology, and Innovation Policy



Office of the Principal Scientific Adviser  
to the Government of India



### DRAFT FIFTH NATIONAL SCIENCE, TECHNOLOGY, AND INNOVATION POLICY FOR PUBLIC CONSULTATION

Let us know your thoughts.

Email: [india.stip@gmail.com](mailto:india.stip@gmail.com)  
Last Date: **25th January, 2021**



Website: [www.psa.gov.in](http://www.psa.gov.in)

Twitter: [@PrinSciAdvGov](https://twitter.com/PrinSciAdvGov)

Facebook: [@prinsciadvoff](https://www.facebook.com/prinsciadvoff)

### What is the overall philosophy behind the government's draft Science, Technology and Innovation (STI) policy?

- Unlike previous STI policies which were largely top-driven in formulation, the 5th national STI policy (STIP) follows core principles of being decentralised, evidence-informed, bottom-up, experts-driven, and inclusive.
- It aims to be dynamic, with a robust policy governance mechanism that includes periodic review, evaluation, feedback, adaptation and, most importantly, a timely exit strategy for policy instruments.
- The STIP will be guided by the vision of positioning India among the top three scientific superpowers in the decade to come; to attract, nurture, strengthen, and retain critical human capital through a people-centric STI ecosystem; to double the number of full-time equivalent (FTE) researchers, gross domestic expenditure on R&D (GERD) and private-sector contribution to GERD every five years; and to build individual and institutional excellence in STI with the aim of reaching the highest levels of global recognition and awards in the coming decade.
- The policy outlines strategies for strengthening India's STI ecosystem to achieve the larger goal of Atmanirbhar Bharat.



## Why has the draft STIP proposed an Open Science Framework, with free access for all to findings from publicly funded research?

- Open Science fosters more equitable participation in science through increased access to research output; greater transparency and accountability in research; inclusiveness; better resource utilisation through minimal restrictions on reuse of research output and infrastructure; and ensuring a constant exchange of knowledge between the producers and users of knowledge.
- It is important to make publicly funded research output and resources available to all to foster learning and innovation.
- STIP provides a forward-looking, all-encompassing Open Science Framework to provide access to scientific data, information, knowledge, and resources to everyone in the country, and to all who are engaging with the Indian STI ecosystem on an equal partnership basis.
- This framework will be largely community-driven, and supported with necessary institutional mechanisms and operational modalities.
- Output from research that is not funded by the government will be outside the purview of this framework.
- However, they will be encouraged to participate in this framework. Since the scheme of providing open access is applicable to every Indian, private-sector researchers, students, and institutions will also have the same accessibility.

## What is the point of buying bulk subscriptions for all journals and giving everyone free access? How feasible is this proposal?

- The larger idea behind One Nation, One Subscription is to democratise science by providing access to scholarly knowledge to not just researchers but to every individual in the country.
- Scientists are producers of scientific knowledge in the form of scholarly articles, but the consumers of this knowledge – such as line departments, innovators, industry, the society at large, etc., – are several times larger in number.
- But in the present mechanisms, they do not have access to this knowledge.
- R&D institutions in India spend huge amounts of money subscribing to journals, especially the international high impact-factor ones.
- The STIP envisions free access to all journals, Indian and foreign, for every Indian against a centrally-negotiated payment mechanism.
- This amount may be higher than what our institutions together pay today, but will facilitate access to India's over 1.3 billion people.
- A national STI Financing Authority, along with an STI Development Bank, need to be set up to direct long-term investments in select strategic areas.
- The STIP also suggests modification or waiver of General Financial Rules (GFR), for large-scale mission mode programmes and projects of national importance.

## 6.11. Innovation Challenge for Developing Portable Devices to Test Drinking Water Quality

- The National Jal Jeevan Mission has launched an innovation challenge in partnership with Department of Promotion of Industry and Internal Trade to develop portable devices for water testing.
- The main objective of the exercise is to bring an innovative, modular, and cost-effective solution to develop portable devices that can be used at the household level to test the drinking water quality instantly, easily and accurately.
- Water quality testing is one of the priority areas under Jal Jeevan Mission, the flagship programme of Union Government.
- The aim of the innovation challenge is to ensure that water sources are tested at various locations, at different levels; thereby, helping the policy framers to design programs which address the water contamination issues.
- People receiving piped water supply in their homes do not have any means to test the potability of water coming from their taps.
- This leads to a situation wherein, quite often, people are reluctant to consume tap water directly.
- People in urban areas also end up installing household water treatment units incurring additional expenditure.
- The challenge aims to address these issues in an innovative, modular and cost-effective manner.
- Drinking water supply in rural areas is from both from groundwater (80%) and surface water (20%) sources.
- However, due to the depleting groundwater level, especially in arid and semi-arid regions, the use of surface water is on the rise.
- For both groundwater and surface waterbased rural drinking water supply systems, it is important to measure relevant area-specific contaminations to ensure access to potable water.
- The Uniform Drinking Water Quality Protocol, 2019 has specified some important parameters to be monitored for assuring portability of drinking water as per BIS IS 10500:2012 and subsequent amendments.
- Jal Jeevan Mission is under implementation in partnership with the States to enable every rural home to have tap water connection by 2024.
- The aim of the mission is to provide every rural household potable tap water in adequate quantity and of prescribed quality on a regular and long-term basis.
- The National Jal Jeevan Mission invites applicants to join the Innovation Challenge to develop portable devices for water testing and become a part of this life changing Jan Aandolan.

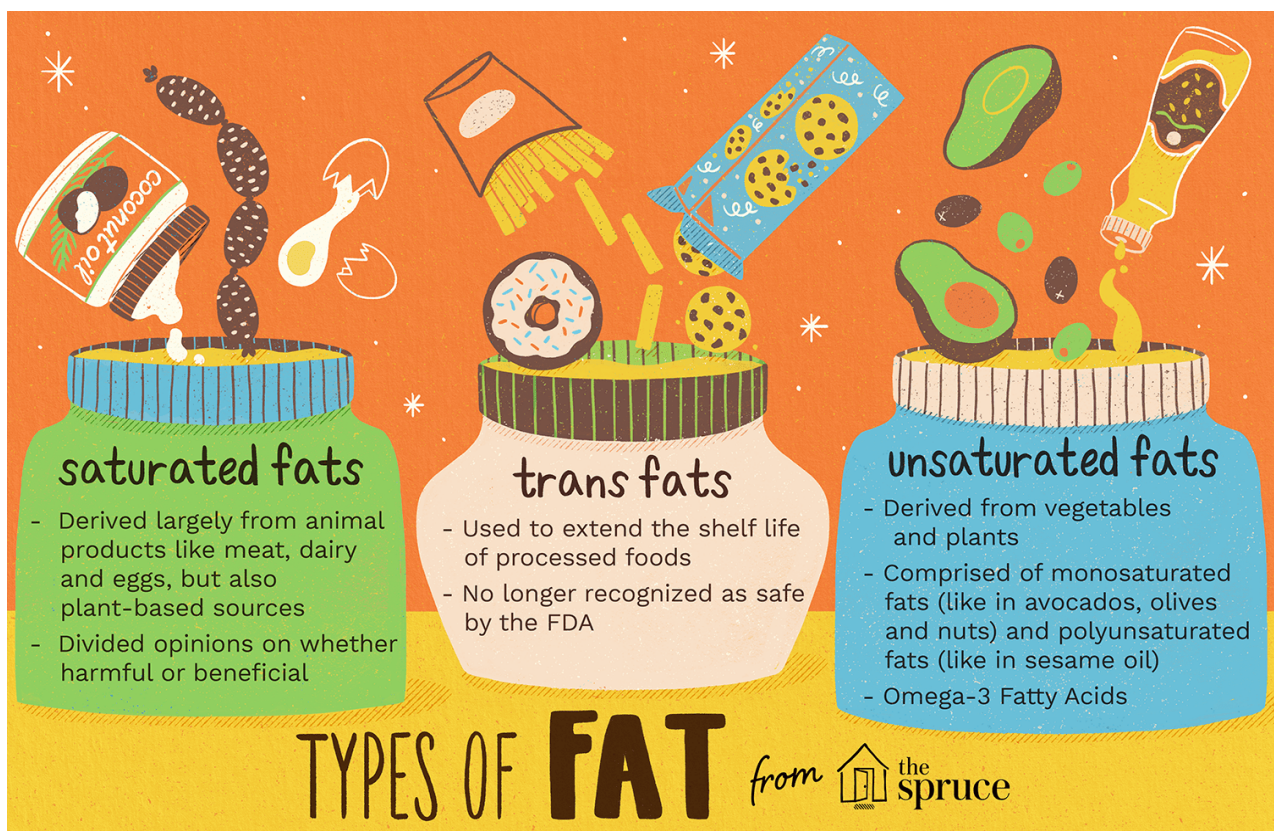
## 6.12.FSSAI slashes limit for trans fat levels in foods

### The News

The Food Safety and Standards Authority of India (FSSAI) capped the amount of trans fatty acids (TFA) in oils and fats to 3% for 2021 and 2% by 2022 from the current permissible limit of 5%

- The regulations apply to edible refined oils, vanaspati (partially hydrogenated oils), margarine, bakery shortenings, and other mediums of cooking such as vegetable fat spreads and mixed fat spreads.
- WHO called for global elimination of trans fats by 2023
- FSSAI rule has come in the backdrop of the pandemic where the burden of non-communicable diseases has risen
  - ✓ Cardiovascular diseases along with diabetes are proving fatal for COVID-19 patients
- India first passed a regulation that set a TFA limit of 10% in oils and fats in 2011, which was reduced to 5% in 2015.

### Trans Fats



- They are a form of unsaturated fat which come in both natural and artificial form
  - ✓ Natural or ruminant: In meat and dairy from ruminant animals such as cattle sheep and goats
  - ✓ Artificial or industrial: Hydrogenation of vegetable oils
- Trans fats are associated with increased risk of heart attacks and death from coronary heart disease.

- As per the World Health Organisation (WHO), approximately 5.4 lakh deaths take place each year globally because of intake of industrially produced trans fatty acids.

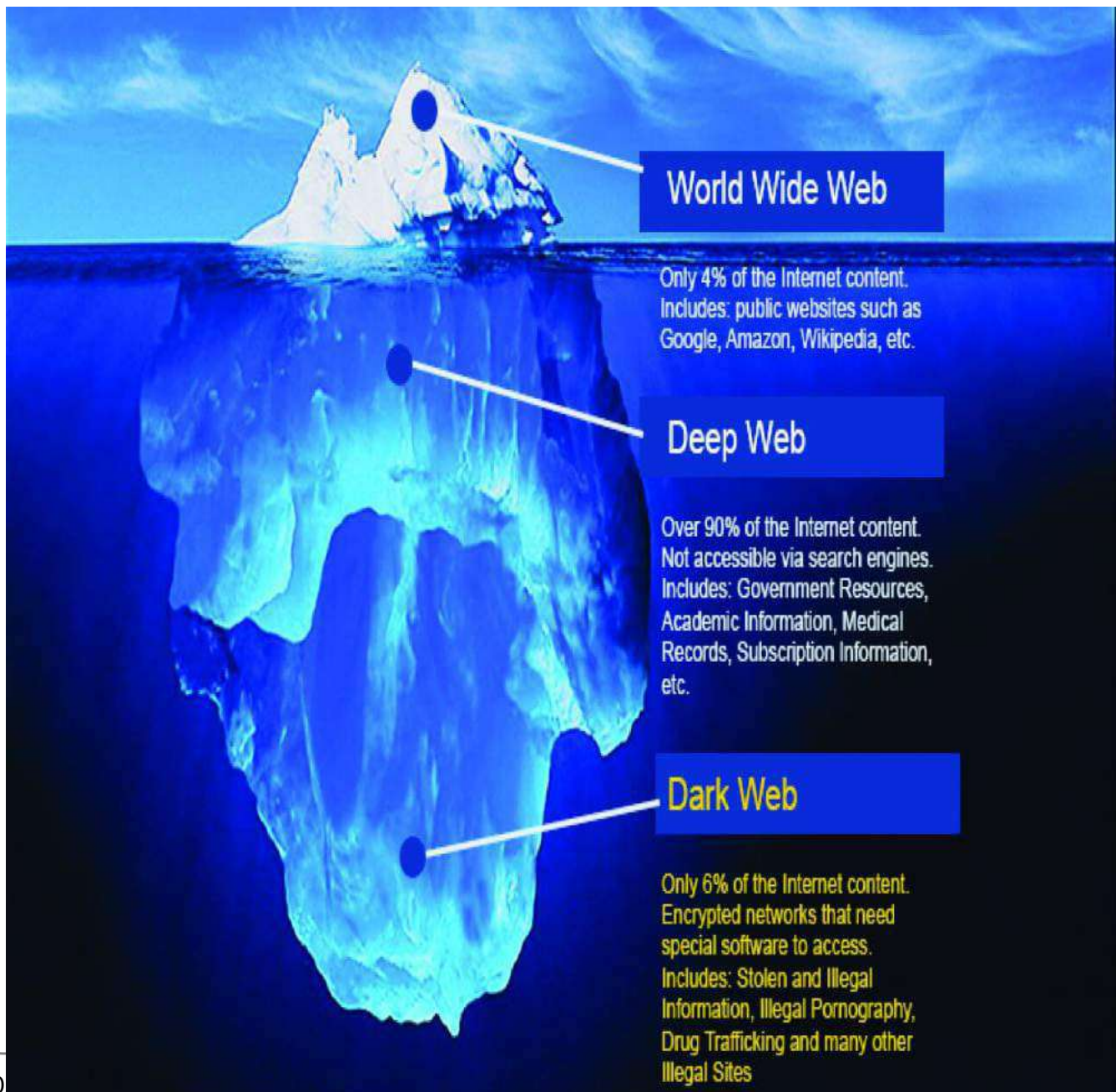
## 6.13. Juspay Data Leak

### The News

- Sensitive information of over 100 million credit and debit cardholders was leaked on the dark web. A security researcher reported that the data was leaked through a faulty server of Juspay, a mobile payments company.
- The leaked information contained several personal details of Indian cardholder as well as their customer IDs, card expiry dates, and masked card numbers with the first and last four digits of the cards.

### Data Leak

- Data leakage is the unauthorized transmission of data from within an organization to an external destination or recipient .



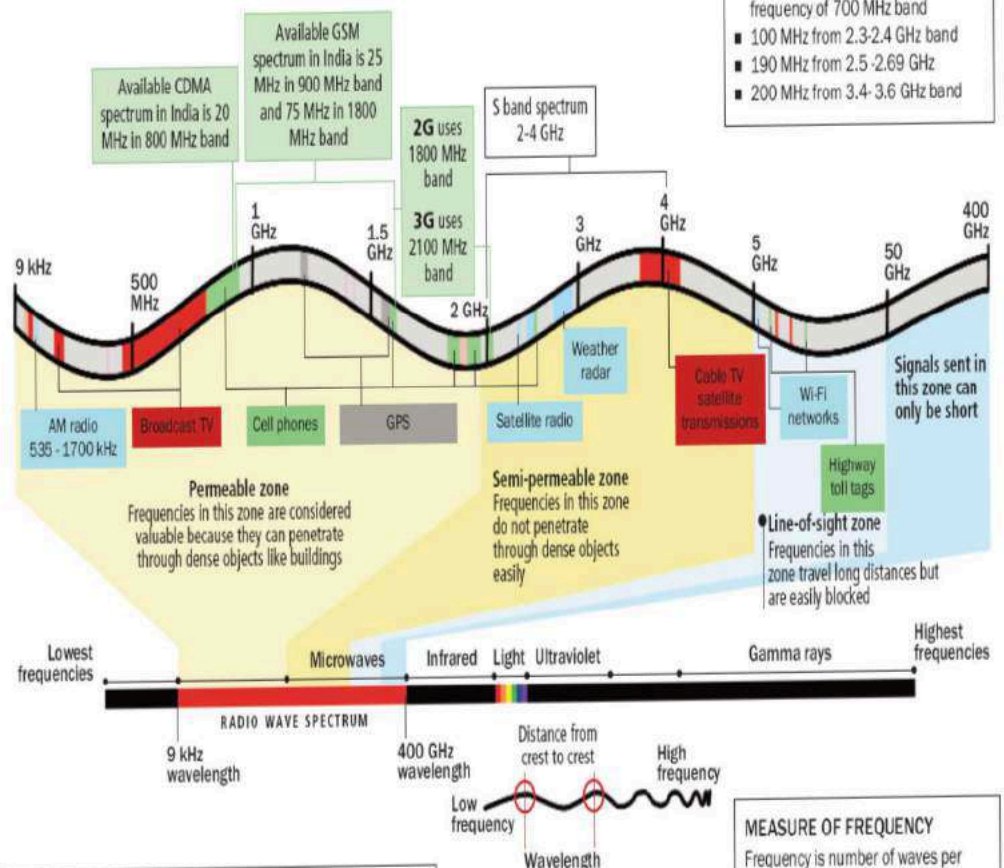
## 6.14.4G spectrum auctions

### The News

- The Department of Telecommunications (DoT) has announced that auctions for 4G spectrum in the 700, 800, 900, 1,800, 2,100, 2,300, and 2,500 MHz bands will begin from March 1
  - The need for a new spectrum auction has arisen because the validity of the airwaves bought by companies is set to expire in 2021.
  - The last spectrum auctions were held in 2016, when the government offered 2,354.55 MHz at a reserve price of Rs 5.60 lakh crore.
- ✓ Government managed to sell only 965 MHz – or about 40 per cent of the spectrum that was put up for sale



### RADIO SPECTRUM

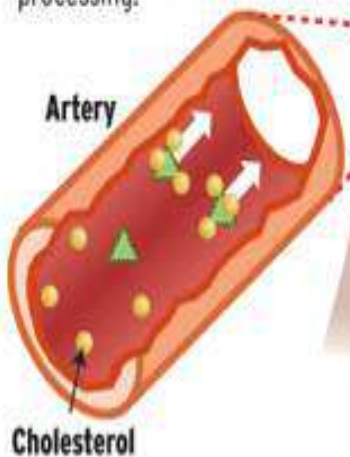


# What they do to the body

Trans fats (also known as partially hydrogenated oils) are created by adding hydrogen to liquid vegetable oil, giving them longer shelf life and making them more suitable for frying and other uses. They also raise bad (LDL) cholesterol levels while lowering good (HDL cholesterol).

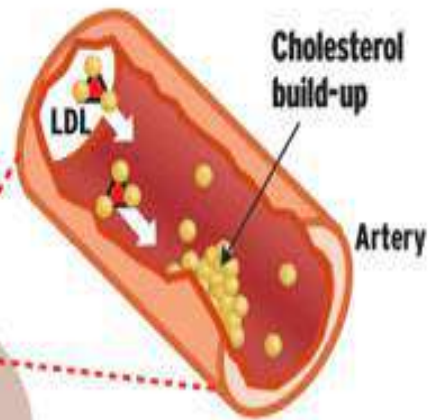
## Good cholesterol

High-density lipoproteins (HDL) pick up excess cholesterol and transport it back to the body's liver for processing.



## Bad cholesterol

Low-density lipoproteins (LDL) transport cholesterol throughout the body. As cholesterol builds up in the walls of the body's arteries, the arteries become narrow and hardened, reducing blood flow and leading to an increased chance of heart attack and stroke.



## Where it comes from

Trans fats are created by hydrogenation, a chemical process that hardens vegetable oil. The more solid the fat, the more trans fat it contains.

Low trans fat				
Vegetable oil	Semi-liquid margarine	Soft margarine	Stick margarine	Shortening

Sources: The Mayo Clinic; American Heart Association; U.S. Food and Drug Administration; McClatchy-Tribune

The Register

✓ Depending on the demand from various companies, the price of the airwaves may go higher, but

cannot go below the reserve price.

### What are spectrum auctions?

- The signals for connecting cellphone and wireless telephones are carried on airwaves, which must be sent at designated frequencies to avoid any kind of interference
- The Union government owns all the publicly available assets within the geographical boundaries of the country, which also include airwaves
- These airwaves are called spectrum, which is subdivided into bands which have varying frequencies
- All these airwaves are sold for a certain period of time, after which their validity lapses, which is generally set at 20 years

### Who are likely to bid for the spectrum?

- All three private telecom players, Reliance Jio Infocomm, Bharti Airtel, and Vi are eligible contenders to buy additional spectrum to support the number of users on their network
- Foreign companies, are also eligible to bid for the airwaves, however, they will have to either set up a branch in India and register as an Indian company, or tie up with an Indian company to be able to retain the airwaves after winning them
- As part of the deferred payment plan, bidders for the sub-1 GHz bands of 700, 800 and 900 MHz can opt to pay 25 per cent of the bid amount now, and the rest later.
- In the above-1 GHz bands of 1,800, 2,100, 2,300, and 2,500 MHz frequency bands, bidders will have to pay 50 per cent upfront, and can then opt to pay the rest in equated annual instalments.
- The successful bidders will, however, have to pay 3 per cent of Adjusted Gross Revenue (AGR) as spectrum usage charges, excluding wireline services.

## 6.15. Lightning Strikes

### The News

- The number of deaths due to lightning strikes reduced by nearly 37 per cent, from 2,800 deaths between April 1, 2018 to March 31, 2019 to 1,771 during the same period in 2019-20, according to a report published by the Climate Resilient Observing Systems Promotion Council (CROPC) – a non-profit organisation that works closely with India Meteorological Department.
- According to the report, lightning-linked fatalities formed 33 per cent of total deaths in natural disasters, according to data for the corresponding period in 2019-20.
- Several interventions were behind the decline, adding that more than 60 per cent of deaths in lightning incidents in 2019-20 were reported from Uttar Pradesh (293), Madhya Pradesh (248), Bihar (221), Odisha (200) and Jharkhand (172).
- More than 1.2 million people were evacuated to cyclone shelters. Odisha had zero casualty, mainly due to all 891 cyclone shelters being fitted with Lightning Arresters.
- The report points out the need to have improved forecasting systems and lightning protection devices in place to avoid casualties.
- Centre has not notified lightning as a disaster Lightning

- It is a naturally occurring electrostatic discharge during which two electrically charged regions in the atmosphere or ground temporarily equalise themselves, causing the instantaneous release of as much as 1 GJ of energy
  - ✓ This discharge may produce a wide range of electromagnetic radiation, from very hot plasma created by the rapid movement of electrons to brilliant flashes of visible light in the form of blackbody radiation
- Lightning strikes around a fixed period and almost similar geographical locations in similar patterns.
- Lightning causes thunder which is a sound from the shock wave that develops as gases in the vicinity of the discharge experience a sudden increase in pressure
- It is important to bring out lightning fatalities as a disaster to prevent losses

## 6.16.ISRO and Atal Tinkering Labs

- Context: ISRO will adopt 100 Atal Tinkering Labs across the country to promote scientific temperament among students and encourage them for space education and space technology related innovations.
- Indian Space Research Organisation will facilitate coaching and mentoring of students in advanced 21st century cutting-edge technologies, including those related to space
- The students will not only gain theoretical, but also practical and application-based knowledge of STEM and Space Education related concepts such as Electronics, Physics, Optics, Space Technology, Material sciences and many more
- Atal Innovation Mission and NITI Aayog have established over 7,000 ATIs across the country so far, enabling more than three million students between classes 6 to 12 acquire a problem solving, tinkering and innovative mindset

### Atal Innovation Mission

- It is the flagship initiative to promote a culture of innovation and entrepreneurship in the country .
- AIM's objective is to develop new programmes and policies for fostering innovation in different sectors of the economy, provide platform and collaboration opportunities for different stakeholders, create awareness and create an umbrella structure to oversee innovation ecosystem of the country
- Major Initiatives
  - ✓ Atal Tinkering Labs - Creating problem solving mindset across schools in India
  - ✓ Atal Incubation Centers - Fostering world class startups and adding a new dimension to the incubator model
  - ✓ AtalNewIndiaChallenges-Fostering product innovations and aligning them to the needs of various sectors/ministries
  - ✓ MentorIndiaCampaign-A national Mentor network in collaboration with public sector ,corporates and institutions, to support all the initiatives of the mission
  - ✓ Atal Community Innovation Center - To stimulate community centric innovation and ideas in the unserved /underserved regions of the country including Tier 2 and Tier 3 cities



✓ ARISE - To stimulate innovation and research in the MSME industry

## 6.17.3D printing adoption in US and India

- Production technologies such as 3D printing are getting popular in the push to build sustainable products. But the stage of progress varies in the developing and the developed world
  - ✓ A new study finds that while US firms tend to acquire 3D printing technologies more than Indian ones, they fall behind in the actual application of these methods in production
- The use of 3D printing in manufacturing is picking up as it improves sustainability.
  - ✓ Uses less energy and produces less waste than traditional methods.
  - ✓ Allows manufacturing to be done on demand, so less space is needed to store inventory.
- But there are high taxes on 3D printing tech in India which is coming in the way of its acquisition
  - ✓ Printers used in the technology are usually imported from abroad, which adds international shipping costs and customs duties.
- Indian firms apply 3D printing tech in production more, because technologies used in the US are already well established .
  - ✓ Applying 3D printing tech would mean replacing these technologies, which technical employees aren't eager to do .
  - ✓ In India, it's easier for the top management to have employees toe the line and apply 3D printing, as the Indian society is more collectivist and inclined to follow group norms, says the study.

## 6.18.Ultra-high Mobility Electron gas and Information Transfer

- Scientists at Institute of Nano Science and Technology (INST), Mohali (Punjab), have produced electron gas with ultra-high mobility, which can speed up transfer of quantum information and signal from one part of a device to another and increase data storage and memory.
- This is done by manipulating property of an electron called spin degree of freedom along with its charge.
  - ✓ This has given rise to an altogether new field of spin-electronics or 'spintronics'.
- It has been realized that a phenomenon called the 'Rashba effect', which consists of splitting of spin-bands in an electronic system, might play a key role in spintronic devices.
- Due to the high mobility of the electron gas, electrons do not collide inside the medium for a long distance and hence do not lose the memory and information.
- Hence, such a system can easily remember and transfer its memory for a long time and distance.
- In addition, since they collide less during their flow, their resistance is very low, and hence they don't dissipate energy as heat.
- So, such devices do not heat up easily and need less input energy to operate.

## 6.19.Ebola Vaccine Stockpile in Switzerland

- Four international health and humanitarian organisations have come together to establish a global Ebola vaccine stockpile to ensure a quick response to an outbreak
- The effort was led by the International Coordinating Group (ICG) on Vaccine Provision, which includes the World Health Organization (WHO), UNICEF, the International Federation of Red Cross and Red Crescent Societies (IFRC), and Médecins Sans Frontières (MSF), with financial support from Gavi, the Vaccine Alliance
- UNICEF manages the stockpile on behalf of the ICG which, as with stockpiles of cholera, meningitis and yellow fever vaccines, will be the decision-making body for its allocation and release.

### **Ebola virus Disease (EVD)**

- Formerly known as Ebola haemorrhagic fever, is a rare but severe, often fatal illness in humans
- Ebolavirus belongs to Filoviridae family and six species have been identified: Zaire, Bundibugyo, Sudan, Taï Forest, Reston and Bombali.
- Fruit bats of the Pteropodidae family are natural Ebola virus hosts
- Virus is transmitted to people from wild animals and spreads in the human population through human- to-human transmission
- A person infected with Ebola cannot spread the disease until they develop symptoms
- 2014–2016 outbreak in West Africa was the largest Ebola outbreak since the virus was first discovered in 1976
- The rVSV-ZEBOV (single-dose, injectable, live) vaccine is being used in the ongoing 2018-2019 Ebola outbreak in DRC
  - ✓ Pregnant and breastfeeding women can be administered the vaccine in the same way as general population
  - ✓ It protects against the Zaire ebolavirus species which is commonly known to cause outbreaks