

**WEEKLY CURRENT AFFAIRS MAGAZINE for**



# U.P.S.C. - C.S.E.

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16 November to 23 November



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*Success is born of action...*

## **Topic 1: RCEP**

### ***Importance for Prelims: Economy***

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

- Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement (FTA) between –The 10 members of ASEAN Additional members of ASEAN +3 = China, Japan, South Korea Members with which ASEAN countries have FTA = Australia, New Zealand.
- The group is expected to represent at least 30% of the global GDP and will emerge as the largest free trade agreement in the world.
- It includes more than 3 billion people, has a combined GDP of about \$17 trillion, and accounts for about 40 per cent of world trade.

### **India’s reluctance**

- India’s ties with China in recent months have been disturbed by the military tension in eastern Ladakh along the LAC.
- In the meantime, India has also held a maritime exercise with Japan, Australia, and the United States for the “Quad” that was interpreted as an anti-China move.
- However, these moves did not influence Japanese and Australian plans regarding RCEP.

### **Leverage for China**

- Despite the pandemic, the RCEP is certainly leverage for China and shows the idea of decoupling from China is not a substantive issue in a regional sense.
- The agreement means a lot for China, as it will give it access to Japanese and South Korean markets in a big way, as the three countries have not

yet agreed on their FTA Source.

## **Topic 2 : UN PEACE KEEPING**

### ***Importance for Prelims: International Relations***

India and the U.S. are looking to undertake training of military personnel for the missions from Southeast Asian countries on the lines of the ongoing initiative for African countries.

- India has consistently been among the top troop contributing nations to the UN and is the fifth largest with 5,424 personnel in eight countries.
- The U.S. on the other hand has never contributed ground troops but contributes 27% of the U.N. peacekeeping budget.
- In 2016, India and the U.S. began a joint annual initiative “UN Peacekeeping Course for African Partners” to build and enhance the capacity of African troop and police-contributing countries to participate in the U.N. and regional peacekeeping operations.

### **UN Peacekeeping Mission:**

- United Nations Peacekeeping is a joint effort between the Department of Peace Operations and the Department of Operational Support. Every peacekeeping mission is authorized by the Security Council.
- The financial resources of UN Peacekeeping operations are the collective Responsibility of UN Member States.
- According to UN Charter every Member State is legally obligated to pay their respective share for peacekeeping.

### **Composition:**

- UN peacekeepers (often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets) can include soldiers, police officers, and civilian personnel. Peacekeeping forces are contributed by member states on a voluntary basis.
- Civilian staffs of peace operations are international civil servants,

recruited and deployed by the UN Secretariat.

**Features:**

- United Nations Peacekeeping helps countries torn by conflict create conditions for lasting peace.
- Peacekeeping has unique strengths, including legitimacy, burden sharing, and an ability to deploy and sustain troops and police from around the globe, integrating them with civilian peacekeepers to advance multidimensional mandates.

**UN Peacekeeping is guided by three basic principles:**

- Consent of the parties.
- Impartiality Non-use of force except in self-defence and defence of the mandate

**Global partnership:**

- UN peacekeeping is a unique global partnership.
- It brings together the General Assembly, the Security Council, the Secretariat, troop and police contributors and the host governments in a combined effort to maintain international peace and security.

### Topic 3: SEX RATIO

*Importance for Prelims: Social issue*



Arunachal Pradesh recorded the best sex ratio in the country, while Manipur Recorded the worst, according to the 2018 report on “Vital statistics of India based on the Civil Registration System” published by the Registrar-General of India.

- Sex ratio at birth is the number of females born per 1,000 males.
- Arunachal Pradesh recorded 1,084 females born per thousand males,

followed by Nagaland (965) Mizoram (964), Kerala (963) and Karnataka (957).

- The worst was reported in Manipur (757), Lakshadweep (839) and Daman & Diu (877), Punjab (896) and Gujarat (897).
- Six absentees The ratio was determined on the basis of data provided by 30 States and Union Territories as the “requisite information from six States namely Bihar, Jharkhand, Maharashtra, Sikkim, Uttar Pradesh and West Bengal is not available”, the report said.
- The number of registered births increased to 2.33 crore in 2018 from 2.21 crore registered births the previous year. “The level of registration of births has increased to 89.3% in 2018 from 81.3% in 2009,” the report said.
- The prescribed time limit for registration of birth or death is 21 days. Some States, however, register the births and deaths even after a year.
- The birth or death certificate is issued free of charge by the Registrar concerned if reported within 21 days.
- “Births and deaths reported after one year of occurrence shall be registered only on an order of the Magistrate of the First Class after verifying the correctness and on payment of the prescribed fee,” the report said.

### **Registrar General of India:**

- Registrar General and Census Commissioner of India founded in 1961 by Government of India Ministry of Home Affairs, for arranging, conducting and analyzing the results of the demographic surveys of India including Census of India and Linguistic Survey of India.

## **Topic 4: TRISTAN DA CUNHA**

### ***Importance for Prelims: Environment***

The isolated UK Overseas Territory of Tristan da Cunha, which is home to the world's most remote human settlement, declared the largest fully protected marine reserves in the Atlantic Ocean at 687,000 square kilometers.

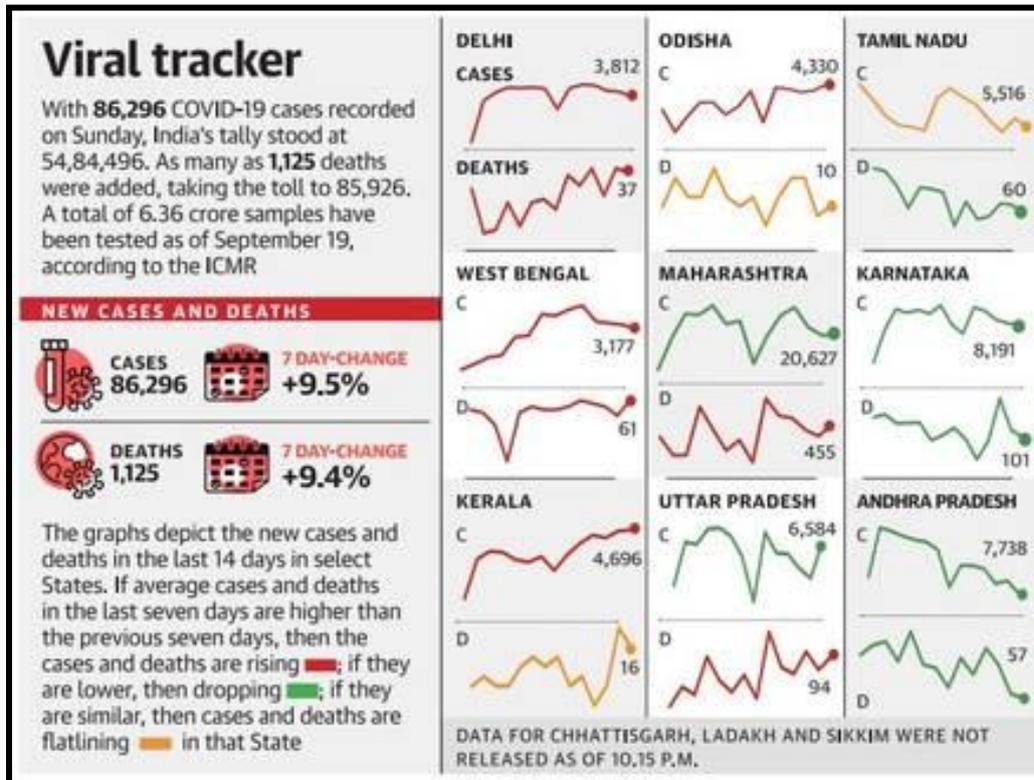
- Tristan da Cunha, which is inhabited by less than 300 humans is a small chain of islands over 6,000 miles from London in the South Atlantic and the water around the islands are considered to be the richest in the world.
- Tristan da Cunha is home to tens of millions of seabirds and several unique land birds that are comparable to the Galapagos island finches, as per the Royal Society for the Protection of Birds (RSPB).
- The island group is also home to the World Heritage Site of Gough and Inaccessible Islands, which is one of the most important seabird islands in the world.

### **What does the announcement mean for the island group?**

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

## Topic 5: SERO SURVEY

*Importance for Prelims: Science & tech*



- Sero prevalence studies, which test for antibodies, tend to throw up higher numbers than PCR tests, and these numbers sometimes vary in different rounds in the same population.
- Sero prevalence studies (or sero surveys) estimate the share of the

population that test positive for antibodies using serology tests.

- The presence of a specific antibody in a sufficiently high concentration will suggest that the tested person was previously infected.
- Typically, such studies test individuals who are selected at random using sampling techniques that will allow scaling the results to the general population.

### **Reasons for Difference:**

- The difference between nationally reported numbers and those from serosurveys comes, at least in part, from the fact that most Covid-19 cases in India have been asymptomatic.
- There is also some fear of stigma and threat of quarantine. As a result, not everyone with symptoms gets tested and the number of cases found positive from testing current cases with RT-PCR remains a lot smaller than that from sero prevalence studies

### **Additional Facts:**

- Around 25,000 Ethiopians fleeing conflict in the Tigray region have crossed into neighbouring Sudan, state news agency SUNA reported, as the UN said it was working to find them shelter.
- The United Arab Emirates will extend its “golden” visa system — which grants 10- year residency in the West Asian nation — to certain professionals, specialized degree-holders and others, the UAE’s Vice-President said .
- Leader of the Opposition said Kerala Infrastructure Investment Fund Board (KIIFB) had overstepped its constitutional bounds by issuing sovereign bonds to borrow from the foreign market as pointed out by CAG.

## Topic 6: VULTURE CONSERVATION

*Importance for Prelims: Environment*



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

- While the ministry has been carrying out a conservation project for vultures since 2006, the plan is to now extend the project to 2025 to not just halt the decline but to actively increase the vulture numbers in India.
- There are nine recorded species of vultures in India — the Oriental white-backed, long-billed, slender-billed, Himalayan, red-headed, Egyptian, bearded, cinereous and the Eurasian Griffon.

### Background :

- The crash in vulture populations came into limelight in the mid-90s, and in 2004 the cause of the crash was established as diclofenac used to treat pain and inflammatory diseases such as gout — in carcasses that vultures would feed off.

- The MoEFCC released the Action Plan for Vulture Conservation 2006 with the DCGI banning the veterinary use of diclofenac in the same year and the decline of the vulture population being arrested by 2011.

## **Topic 7: RAMSAR CONVENTION**

### ***Importance for Prelims: Environment***

India has added two more Ramsar sites. They are Lonar lake in Maharashtra which is the only crater lake of the country while the other is Sur Sarovar, also known as Keetham lake in Agra of Uttar Pradesh.

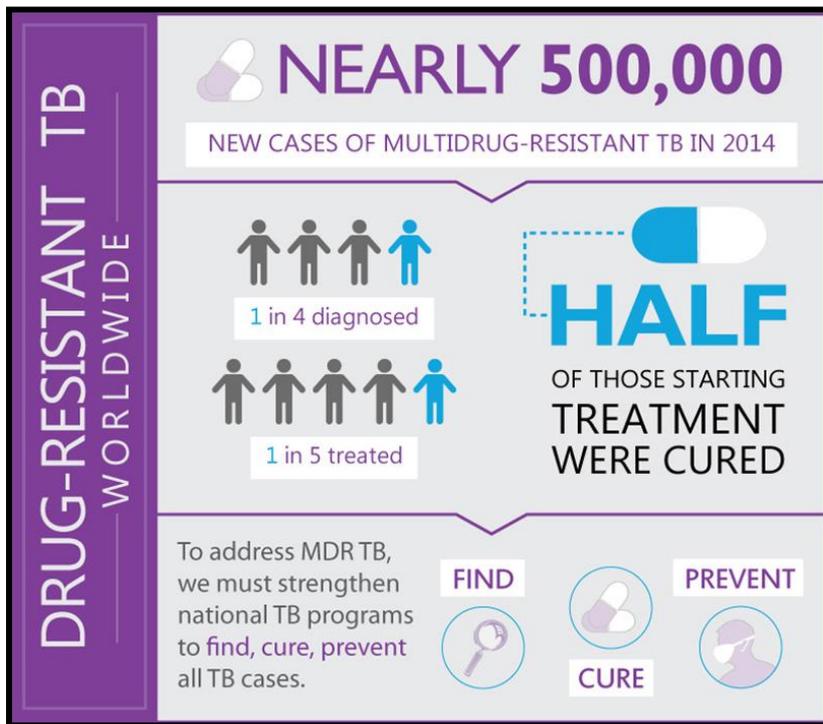
- The Ramsar Convention signed on 2nd February, 1971, is one of the oldest intergovernmental accord signed by member countries to preserve the ecological character of their wetlands of international importance.
- It is named after Ramsar, the Iranian city where the treaty was signed in 1971, and places chosen for conservation under it are given the tag 'Ramsar site'.
- The aim of the Ramsar list is to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits.

### **Recent additions :**

- Recently, Kabartal in Bihar's Begusarai district was recognised as a wetland of international importance, the first such wetland in the state, under the Ramsar Convention, according to the Union Environment Ministry.
- The Asan Conservation Reserve in Dehradun, the first wetland from Uttarakhand to be recognised by Ramsar convention, was added to the list in October this year.

## Topic 8: DRUG RESISTANT TB

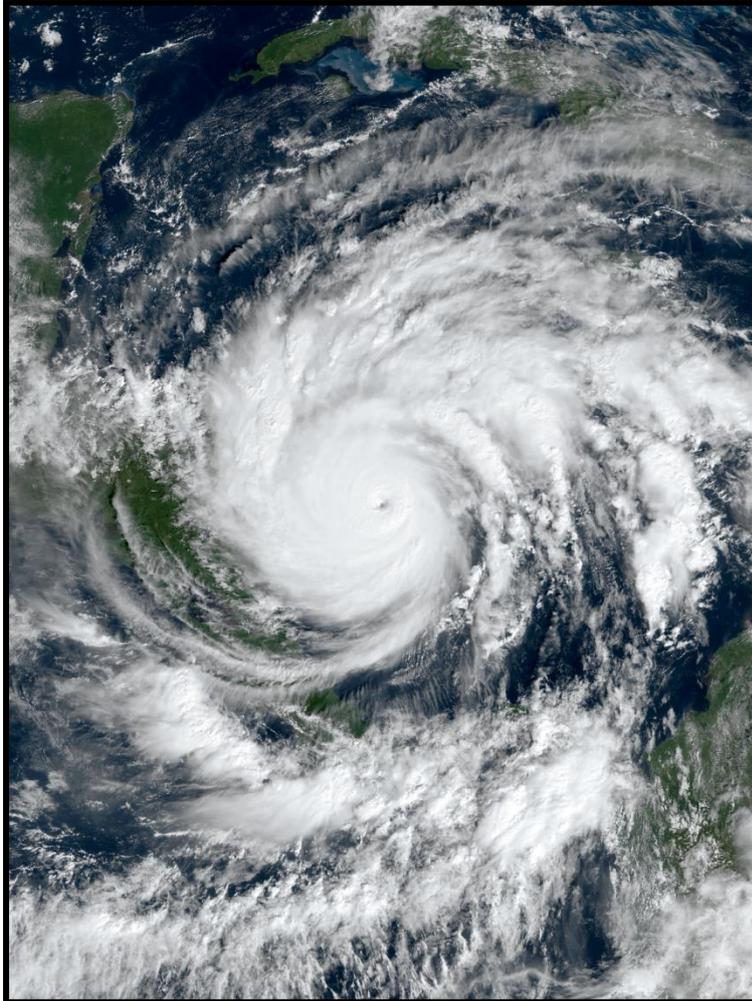
*Importance for Prelims: Health*



- Doctors Without Borders (MSF) has called on governments to accelerate testing, treatment, and prevention for TB, and for donors to provide financial support to ensure increased access to new medical tools for diagnosing and treating millions with this disease
- A report released on Monday by MSF and the Stop TB Partnership — Step Up for TB — surveys 37 high TB-burden countries and shows that critical medical innovations are reaching far fewer people who urgently need them, because many countries continue to lag in getting their policies in line with new World Health Organization (WHO) guidelines.
- Experts said that India is still following a very conservative approach regarding the new medicines for drug resistant TB, putting lives of patients including children in danger.
- Scaling up of new DR-TB drugs — Bedaquiline and Delamanid — is needed even more during Covid-19.

## Topic 9: HURRICANE IOTA

*Importance for Prelims: Geography*



Hurricane Iota made landfall in Nicaragua in Central America on Monday Night and has developed into a category five storm.

- Iota was spotted as a tropical depression last week in the Central Caribbean Sea by the US National Hurricane Center (NHC).
- The Atlantic Hurricane season runs from June to November and covers the Atlantic Ocean, the Caribbean Sea and the Gulf of Mexico, while the Eastern Pacific Hurricane season runs from May 15 to November 30.

## Hurricanes:

- Tropical cyclones or hurricanes use warm, moist air as fuel, and therefore form over warm ocean waters near the equator.
- The tropical cyclones that form over the Atlantic Ocean or the eastern Pacific Ocean are called hurricanes and the ones that form in the Northwest Pacific are called typhoons. Tropical storms that form in the Bay of Bengal or the Arabian Sea are called cyclones.
- Hurricanes are categorised on the Saffir-Simpson Hurricane Wind Scale, which rates them on a scale of 1 to 5 based on wind speed.
- Hurricanes that reach category three or higher are called ‘major hurricanes’ because of their potential to cause devastating damage to life and property. Iota is a category five storm.

## Topic 10: ARTICLE 32

*Importance for Prelims: Polity*

**Fundamental Rights**

**ARTICLE 32, 226**

**Right to Constitutional Remedies**

**Issue of writs by Supreme Court and High Courts**

**Habeas Corpus, Mandamus, Prohibition, Certiorari Quo-warranto**

Type of Writ	Meaning of the word	Purpose of Issue
Habeas Corpus	You may have the body	To release a person who has been detained unlawfully whether in prison or in private custody.
Mandamus	We Command	To secure the performance of public duties by lower court, tribunal or public authority.
Certiorari	To be certified	To quash the order already passed by an inferior court, tribunal or quasi judicial authority.
Prohibition	-	To prohibit an inferior court from continuing the proceedings in a particular case where it has no jurisdiction to try.
Quo Warranto	What is your authority?	To restrain a person from holding a public office which he is not entitled.

A Supreme Court Bench headed by Chief Justice of India S A Bobde observed That it is “trying to discourage” individuals from filing petitions under Article 32 of the Constitution.

- Article 32 is one of the fundamental rights listed in the Constitution that each citizen is entitled.
- Article 32 deals with the ‘Right to Constitutional Remedies’, or affirms the right to move the Supreme Court by appropriate proceedings for the

enforcement of the rights conferred in Part III of the Constitution.

- Only if fundamental rights is violated can a person can approach the Supreme Court directly under Article 32.
- Both the High Courts and the Supreme Court can be approached for violation or enactment of fundamental rights through five kinds of writs:
  - **Habeas corpus** – related to personal liberty in cases of illegal detentions and wrongful arrests
  - **Mandamus** — directing public officials, governments, courts to perform a statutory duty;
  - **Quo warranto** — to show by what warrant is a person holding public office;
  - **Prohibition** — directing judicial or quasi-judicial authorities to stop proceedings which it has no jurisdiction for; and
  - **Certiorari** — re-examination of an order given by judicial, quasi-judicial or administrative authorities.
- When it comes to violation of fundamental rights, an individual can approach the High Court under Article 226 or the Supreme Court directly under Article 32.
- Article 226, however, is not a fundamental right like Article 32.

## **Topic 11: DEEMED FORESTS**

### ***Importance for Prelims: Environment***

Karnataka Forest Minister Anand Singh announced in the Assembly that the state government would soon declassify 6.64 lakh hectares deemed forests in the state (nearly 67%) and hand it over to Revenue authorities.

- The Supreme Court, in a Dec 12, 1996 judgement, had broadened the definition of forest to include not just land classified as forest under forest or revenue departments, but also those that are forests according to the definition of a forest.
- It had then also asked states to form committees to identify forests, irrespective of the nature of land ownership or whether they are notified, recognized or classified in a time-bound manner.
- There are forests that are notified either with the forest department or revenue department.
- Then there are those areas that are like forests but are neither recorded, nor notified.
- The Supreme Court had ordered that the states identify and classify these as deemed forests.
- Deemed forests are already a legal category of forests in some states and they are not defined according to the dictionary definition.

## Topic 12: LVB FAILURE

*Importance for Prelims: Economy*



Reserve Bank of India decision to impose a 30-day moratorium on Lakshmi Vilas Bank Ltd (LVB) and put in place a draft scheme for its amalgamation with DBS Bank India has raised concerns about the safety of the financial system.

- The RBI said the financial position of the Chennai-based LVB, which has a network of 563 branches and deposits of Rs 20,973 crore, has undergone a steady decline, with continuous losses over the last three years eroding the bank's network.
- The RBI, which put a cap of Rs 25,000 on withdrawals, has assured depositors of the bank that their interest will be protected.
- The combined balance sheet of DBS India and LVB would remain healthy after the proposed amalgamation, with Capital to Risk Weighted Assets Ratio (CRAR) at 12.51% and Common Equity Tier-1 (CET-1) capital at 9.61%, without taking into account the infusion of additional capital.
- The RBI had earlier this year bailed out Yes Bank through a scheme backed by State Bank of India and other banks.

- One safety net for small depositors is the Deposit Insurance and Credit Guarantee Corporation (DICGC), an RBI subsidiary, which gives insurance cover on up to Rs 5 lakh deposits in banks.
- The RBI and the government have often assured that the financial system is safe and sound, but a spate of failures have the potential to affect the confidence of depositors.

## Topic 13: Gurudwara Reform Movement and SGPC

### Importance for Prelims: History

# HOW 1920s SHAPED UP

The year 1920 was among the most eventful when it comes to Sikhism in the 20th century. An awakening within the community led to members taking over gurdwaras from mahants. A recall of the years that followed:

**May 21, 1920** | Akali, the Punjabi newspaper, launched

**Sept 27** | Control of Gurdwara Chomala Sahib in Lahore taken from its granthi by local Sikh community

**Oct 6** | Sikhs get management of Gurdwara Babe Di Ber in Sialkot (now in Pakistan) after legal wrangling

**Oct 12** | Reformist Sikhs take control of Akal Takht

**Oct 13** | Amritsar DC, a British officer, forms a nine-member committee of reformist Sikhs to manage Darbar Sahib

## 1921

**Jan 25** | Akali jatha attacked by mahants and their accomplices in Tarn Taran gurdwara. Some Sikhs are injured

**Jan 26** | Sikhs take control of Tam Taran gurdwara

**Jan 27** | Fatally injured in the attack, Hazara Singh of Aladinpur dies

**Feb 4** | Fatally injured in the attack too, Hukam Singh of Wajaukot dies. The two become first martyrs of the Gurdwara Reform Movement

**Feb 20** | Nankana Sahib massacre takes place. Around 150 Sikhs are killed by Mahant Narain Dass and his hired men

**Feb 21** | Lahore commissioner hands over keys of Nankana Sahib gurdwara to a seven-member committee of Sikhs

**March 14** | Resolution brought in Punjab legislative council, moving the local government to take steps to introduce a bill and, pending this, urging the governor general to promulgate an ordinance to alter and reform existing management of gurdwaras

**April 16** | Sikh Gurdwara and Shrines Bill tabled in Punjab assembly council

**April 23** | Punjab colonial government organises conference between SGPC representatives and mahants. Latter flanked by MLCs Ganpat Rai and Raja Narendra Nath

**April 30** | SGPC registered

**Nov 7** | Amritsar district administration takes keys of toshakhana (treasury) in Darbar Sahib from SGPC vice-president Sunder Singh Ramgarhia. This leads to fresh confrontation between British government and SGPC-Akalis

**Nov 10** | Sikh Gurdwara and Shrines Bill withdrawn

## 1922

**Jan 19** | Keys of toshakhana in Darbar Sahib returned to SGPC president Baba Kharak Singh

**Aug 8** | First arrests at Gurdwara Guru Ka Bagh, 20km from Amritsar, on the issue of Sikhs taking wood for langar from land attached with the gurdwara

**Aug 25** | Around 100 Sikhs injured in police lathi charge at Guru Ka Bagh. This and subsequent police action on peaceful Sikhs attract national attention as Sikhs continue agitation to assert right to take wood for langar from the attached land

**Sept 13** | Police start arresting Sikhs going to Guru Ka Bagh

**Nov 17** | 5,605 Sikhs, including 35 SGPC members, arrested till this day in year. British find escape route by making an arrangement with Sir Ganga Ram

**Oct 30** | Panja Sahib train tragedy. Sikhs of Panja Sahib wanted to serve langar to Sikhs being taken in train for imprisonment at Attock during Guru Ka Bagh Morcha. When told by station master that train would not stop, Sikhs sit on railway track to stop it. Two are killed and around half a dozen were injured

**Nov 24** | Then Punjab province governor gives assent to Second Gurdwara Bill passed in Punjab legislative council

**Dec 8** | British governor general gives assent to bill

**Dec 22** | Bill published in Punjab Gazette and becomes an act

## 1923

**Aug 27** | Jaito agitation starts. It was launched against removal of Maharaja of Nabha, and later disruption of Akhand Path at Gurdwara Gangsar, Jaito, by British officials added fuel to fire

**Oct 12** | SGPC, SAD banned by Punjab government after they launch Jaito agitation

## 1924

**Feb 21** | Dozens of Sikhs killed or injured in firing by police when their Jatha reached Jaito from Akal Takht to restart Akhand Path

## 1925

**July 21** | Punjab provincial government withdraws ban on holding path (recitation of Guru Granth Sahib) in Jaito

**May 7** | Sikh Gurdwara and Shrines Bill, 1925, introduced during specially convened session of Punjab legislative council in Shimla

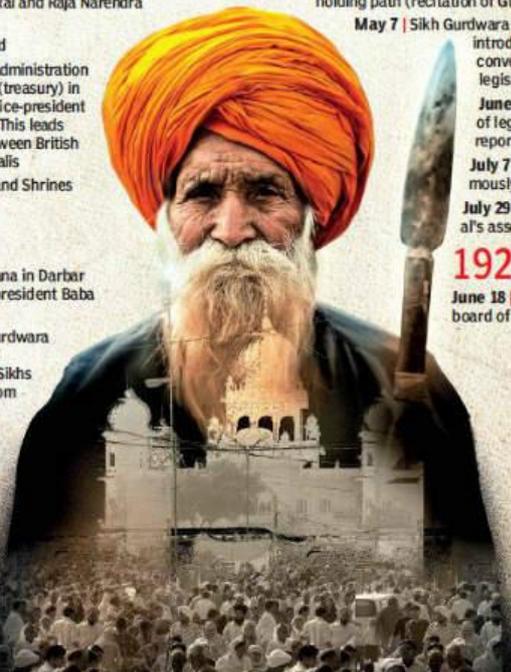
**June 20** | Select committee of legislative council submits report on legislation

**July 7** | Bill is passed unanimously

**July 29** | Bill gets governor-general's assent and becomes an act

## 1926

**June 18** | First election to central board of SGPC held under new act



(Compiled by IP Singh)  
 Date: 'Shriromaa Gurdwara Parbandhak Committee Kiwan Bani' by Dr HS Digeer; 'The Gurdwara Reform Movement And The Sikh Awakening' by Principal Tej Singh; 'Commentary on the Sikh Gurdwaras Act 1925' by Dr Kashmir Singh

There have been no SGPC elections for the last nine years and the leadership has failed to act on the report about the 328 missing copies of Guru Granth Sahib (Holy Scripture).

### **Shiromani Gurdwara Parbandhak Committee**

- The Shiromani Gurdwara Parbandhak Committee (or SGPC) is an organization in India responsible for the management of gurdwaras, Sikh places of worship in three states of Punjab, Haryana, and Himachal Pradesh and union territory of Chandigarh.
- SGPC also administers Darbar Sahib in Amritsar.
- The SGPC is governed by the chief minister of Punjab.
- The SGPC manages the security, financial, facility maintenance and religious aspects of Gurdwaras as well as keeping archaeologically rare and sacred artifacts, including weapons, clothes, books and writings of the Sikh Gurus.

### **The Singh Sabha Movement**

- **The Singh Sabha Movement** was founded at Amritsar in 1873 with a two-fold objective, to make available modern western education to the Sikhs, and to counter the proselytising activities of Christian missionaries as well as the Brahma Samajists, Arya Samajists and Muslim maulvis.
- For the first objective, a network of Khalsa schools was established by the Sabha throughout Punjab.
- In the second direction, everything that went against the Gurus' teachings was rejected, and rites and customs considered to be consistent with Sikh doctrine were sought to be established.

### **Gurudwara Reform Movement**

- The Akali movement (also known as Gurudwara Reform Movement) was an offshoot of the Singh Sabha Movement.
- It aimed at liberating the Sikh gurudwaras from the control of corrupt

Udasi mahants.

- The government tried its repressive policies against the non-violent noncooperation satyagraha launched by the Akalis in 1921 but had to bow before popular demands.
- The government passed the Sikh Gurudwaras Act in 1922 (amended in 1925) which gave the control of gurudwaras to the Sikh masses to be administered through Shiromani Gurudwara Prabandhak Committee (SGPC) as the apex body.
- The Akali Movement was a regional movement but not a communal one.

## Topic 14: OZONE THERAPY

*Importance for Prelims: Science & tech*



Ozone Therapy, a **branch of Naturopathy**, has emerged a promising Alternative medicine therapy to support diabetes treatment with oxygenation.

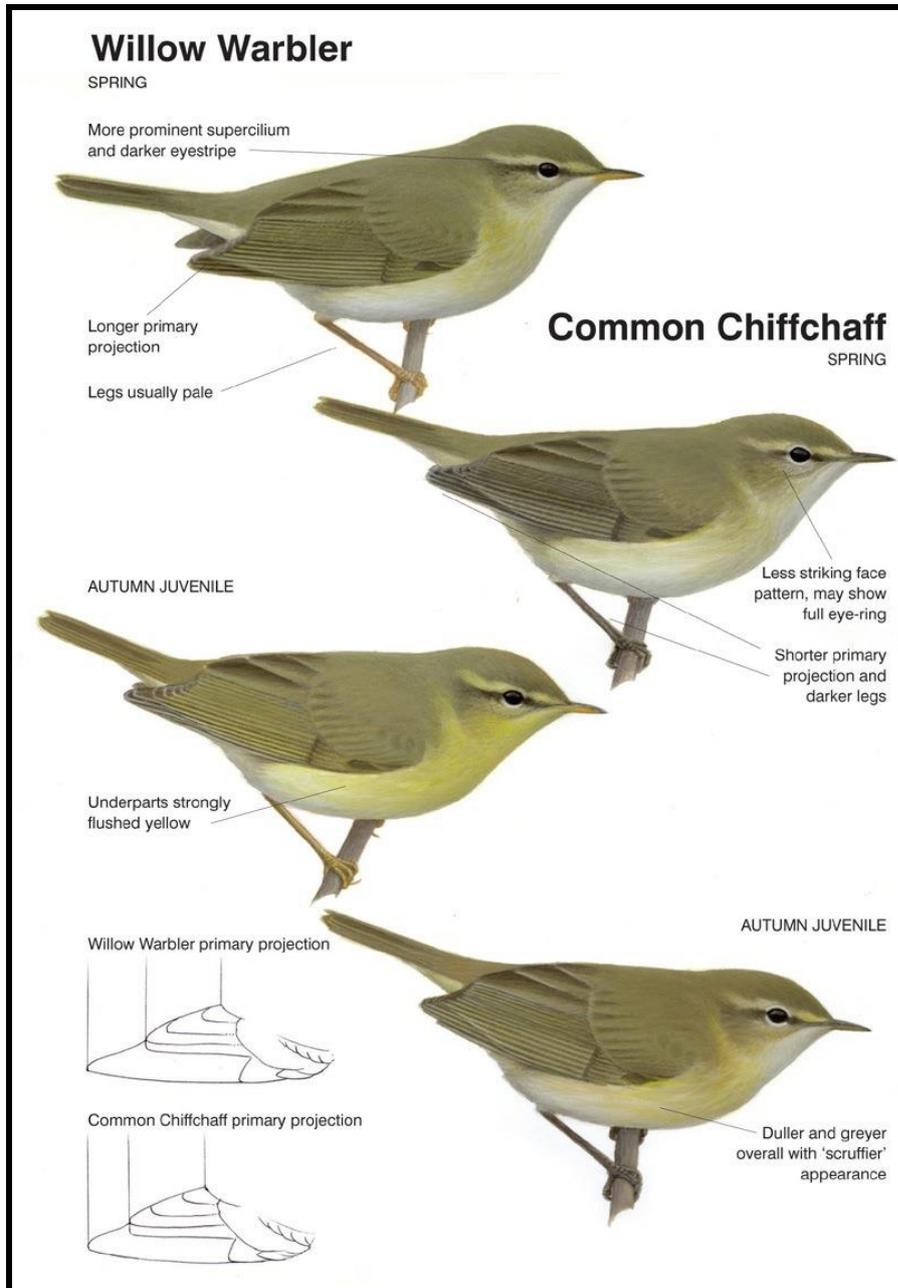
- Ozone improves oxygen delivery to the tissues, resulting into improved circulation and helps in reducing insulin resistance by correcting oxidative stress.
- It gives better sugar control and also has better infection control.
- When Ozone therapy is administered, the body improves oxygen

metabolism.

- Ozone improves ATP (Adenosine triphosphate), which is the primary carrier of energy in cells regulation.
- Thus, ozone targets improve the energy for the cell and maintain the cellular redox balance.
- Experts believe that Ozone Therapy can be a holistic treatment for a multi-organ level cure for diabetes rather than only treating blood sugar levels.
- Existing diabetes management practices are limited to control blood sugar only.
- Medical ozone therapies come as a promising useful resource in targeting the root cause of the problem, helping patients in augmenting their mitochondrial functions, reforming their desired genetic expressions and in restoration of their microbiome.

## Topic 15: WILLOW WABLER

### Importance for Prelims: Environment



- The willow warbler (*Phylloscopus trochilus*), one of the longest migrating small birds, has been sighted for the first time in the country in Thiruvananthapuram.
- It breeds throughout northern and temperate Europe and the Palearctic region.
- The bird weighs around 10 g and it has long wing feathers that help it fly

long distances.

- Usually seen in European and the Palearctic regions, the birds migrate to sub-Saharan Africa during early winter.
- Willow Warbler is often brighter, more yellowish (especially in autumn) with stronger pale eyebrow, pinkish legs, and tends not to habitually dip its tail.
- However, many birds seen are best left unidentified.
- IUCN Status : **Least Concern.**

## Topic 16: SAFAIMITRA SURAKSHA CHALLENGE

*Importance for Prelims: Current Events*



Ministry of Housing and Urban Affairs launched the “Safaimitra Suraksha Challenge”.

- The challenge aims to ensure that no life of septic tank or sewer cleaner is lost during cleaning.
- The challenge stresses on the fact that safety and dignity of sanitation workers is the core of Swachh Bharat Mission.
- The Challenge was launched on the occasion of World Toilet Day.
- The results of the challenge are to be announced on Independence Day.
- The challenge aims to **promote mechanized cleaning**.
- The prizes to the participating cities are to be awarded in three sub categories as follows:
  - Cities with population more than 10 lakhs.
  - Cities with population 3-10 lakhs.
  - Cities with population less than 3 lakhs

### **Additional Information:**

- The Government of India has legislated **The Prohibition of Employment as Manual Scavengers and Rehabilitation Act, 2013** to protect manual sewer cleaners. The act aims to prohibit manual entry into a sewer without protective gears.
- The Key Features of the Act are as follows

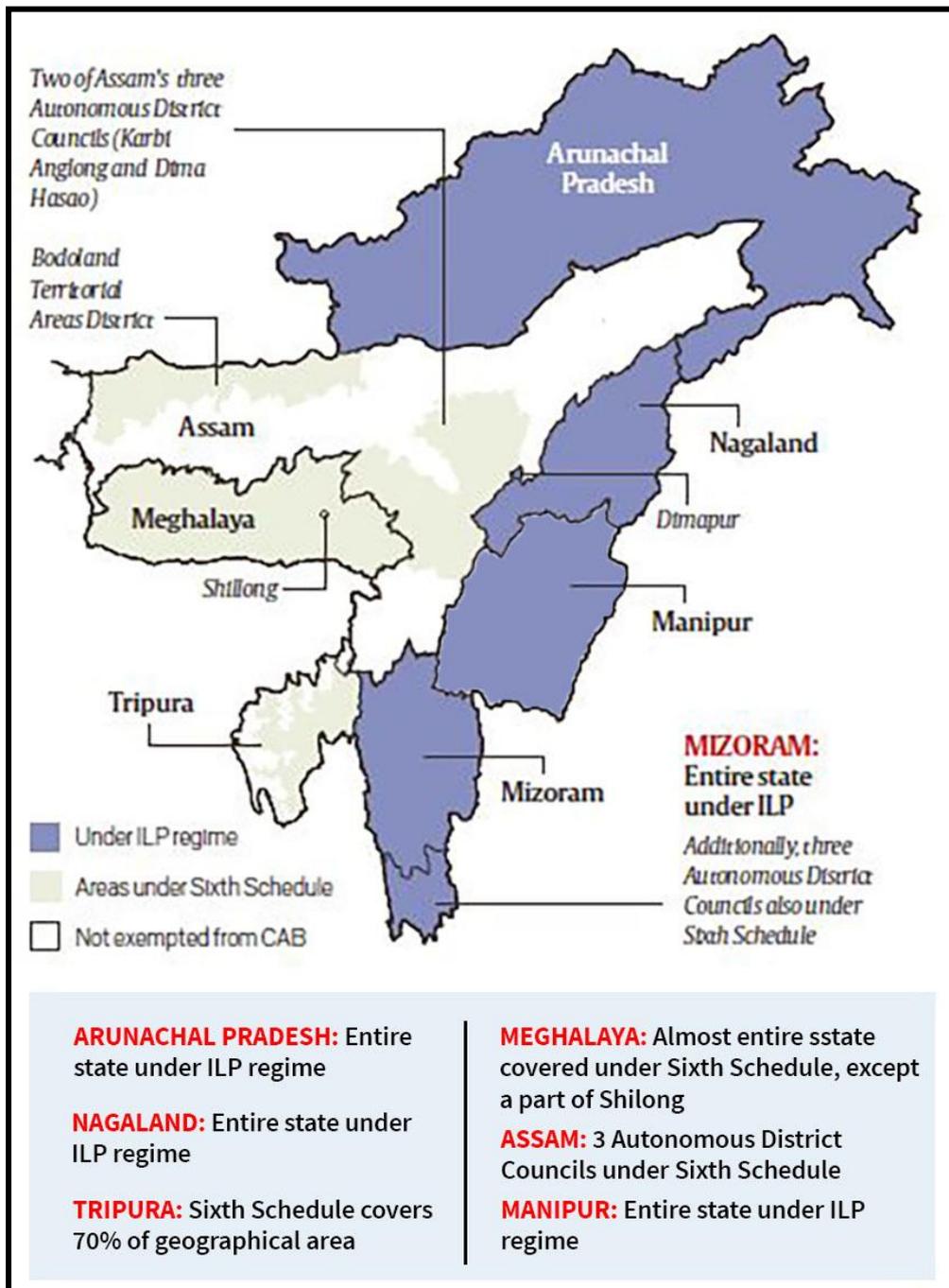
- To prohibit construction or maintenance of insanitary toilets
- To prohibit persons employed in hazardous cleaning
- To prohibit employment of an individual as a manual scavenger.

### **Additional Facts:**

- The SARS-CoV-2 vaccine developed by teams at the University of Oxford has been shown to trigger a robust immune response in healthy adults aged 56 to 69 and those over 70. The findings published in the medical journal Lancet .
- Vaccine maker Serum Institute of India's CEO said the Oxford COVID-19 vaccine should be available for healthcare workers and elderly people by around February 2021 and by April for the general public, and will be priced at a maximum of ₹1,000 for two necessary doses for the public.
- Expressing confidence that a COVID-19 vaccine will be ready in three or four months, Union Health Minister Harsh Vardhan on Thursday said the government had drawn up a meticulous priority plan with healthcare workers and those above 65 years on top of the list.
- President Xi Jinping hailed China as the pivot point for global free trade **on APEC Meeting**, vowing to keep its “super-sized” economy open for business and warning against protectionism as the world battles the COVID-19 pandemic.
- The **Joint Parliamentary Committee** on the Data Protection Bill questioned representatives of Twitter on the “selective removal and suspension of accounts”.
- The panel had asked Twitter to explain its policy regarding suspension of accounts and removing “offensive” tweets.

## Topic 17: INNER LINE PERMIT

*Importance for Prelims: Security*



Meghalaya-based organizations have renewed their movement for the implementation of the British era inner-line permit (ILP) for entry into the State and the scrapping of the Citizenship (Amendment) Act.

- It is a concept based on the policy of exclusion drawn by colonial rulers

in the form of Bengal Eastern Frontier Regulation Act (BEFR), 1873.

- The BEFR prohibits an outsider's — "British subject or foreign citizen" — entry into the area beyond the Inner Line without a pass and his purchase of land there.
- It protected the commercial interests of the British from the tribal communities.
- BEFR came as a response to the reckless expansion of British entrepreneurs into new lands which threatened British political relations with the hill tribes.
- After Independence, the Indian government replaced "British subjects" with "Citizen of India".
- The Inner Line separates the tribal-populated hill areas in the Northeast from the plains.
- To enter and stay for any period in these areas, Indian citizens from other areas need an Inner Line Permit (ILP).
- The main aim of ILP system is to prevent settlement of other Indian nationals in the States where ILP regime is prevalent, in order to protect the indigenous/tribal population.
- The Adaptation of Laws (Amendment) Order, 2019 extended the ILP regime to Manipur – after Arunachal Pradesh, Nagaland and Mizoram where the ILP regime is applicable.

## Topic 18: AMENDMENT TO BANKING LAW

*Importance for Prelims: Economics*

### Green Signal

**BANKING LAWS AMENDED**

- ↳ Reserve Bank to have control over cooperative banks
- ↳ Move to ensure better professionalism, corporate governance
- ↳ RBI can supersede management if cooperative bank fails
- ↳ Will protect interest of depositors
- ↳ Coop banks to be audited as per RBI rules
- ↳ Prior nod from RBI required for CEO appointment

●

#### New Port at VadHAVan

- ↳ In-principle approval given by Cabinet
- ↳ Port to be developed in Maharashtra on 'landlord' model
- ↳ Project cost: **₹65,544 cr**



RBI panel moots allowing large corporates to start private banks after amending bank regulation law.

- An Internal Working Group (IWG) of the Reserve Bank of India (RBI) has recommended raising the cap on promoters' stake in private sector banks to 26% in the long run (15 years).
- The holding is currently mandated at 15% of the paid-up voting equity share capital of the bank.
- As regards non-promoter shareholding, it has suggested a uniform cap of 15% of the paid-up voting equity share capital of the bank for all types of shareholders.
- The IWG, set up in June, has also suggested that large corporate or industrial houses be allowed as promoters of banks only after necessary amendments to the Banking Regulation Act, 1949 .
- Also, well-run non-banking financial companies (NBFCs), with an asset size of ₹50,000 crore and above, including those owned by a corporate

house, may be considered for conversion into banks .

- It should have completed 10 years of operations, meeting due diligence criteria and compliance with additional specified conditions, the panel said.

### **Conversion to SFB**

- The panel also recommended that for Payments Banks intending to convert to a Small Finance Bank (SFB), their track record of three years should be considered sufficient.
- Small Finance Banks and Payments Banks may be listed within ‘6 years from the date of reaching net worth equivalent to prevalent entry capital requirement prescribed for universal banks’ or ‘10 years from the date of commencement of operations’, whichever is earlier.
- The IWG also suggested that the minimum initial capital requirement for licensing new banks be enhanced from ₹500 crore to ₹1,000 crore for universal banks, and be raised to ₹300 crore from ₹200 crore for SFBs.

## Topic 19: LNG FUELLING STATIONS

*Importance for Prelims: Economy*



Minister of Petroleum & Natural Gas and Steel laid the foundation stone for the first 50 LNG fueling stations, across the golden quadrilateral and major National Highways.

- Liquefied natural gas (LNG) is natural gas (predominantly methane, CH<sub>4</sub>, with some mixture of ethane, C<sub>2</sub>H<sub>6</sub>) that has been cooled down to liquid form for ease and safety of non-pressurized storage or transport.
- LNG is not only almost 40% cheaper than diesel but also causes very less pollution.
- LNG use in trucks can reduce SO<sub>x</sub> emissions by 100% and NO<sub>x</sub> emissions by 85% thus befitting society at large.
- Government will set up LNG stations at the distance of 200-300 km on golden quadrilateral, and within 3 years, we will have 1000 LNG stations on all major roads, industrial hubs and mining areas.
- These fifty LNG stations will be set up and commissioned in partnership by country's Oil & Gas majors such as IOCL, BPCL, HPCL, GAIL, PLL, Gujarat Gas and their Joint Venture Companies and subsidiaries.

## Topic 20: MEGHALAYA INTEGRATED TRANSPORT PROJECT (MITP)

*Importance for Prelims: Economy*



The Government of India, the Government of Meghalaya and the World Bank signed a \$120 million project to improve and modernise the transport sector of state of Meghalaya

- The project will improve about 300 km of strategic road segments and standalone bridges by using innovative, climate resilient, and nature-based solutions.
- It will also support innovative solutions such as precast bridges to reduce both time and cost of construction.
- MITP will help Meghalaya develop reliable, climate resilient and safe roads which is crucial for the economic development of the state.
- About half of the 5,362 habitations in the state lack transport connectivity.
- This operation will also support state government's “ **Restart Meghalaya Mission**” to revive and boost development activities affected due to COVID-19 pandemic.
- The \$120 million loan from the International Bank for Reconstruction and Development (IBRD) has a maturity of 14 years including a grace period of 6 years.

## Topic 21: VATAYAN LIFETIME ACHIEVEMENT AWARD

**Importance for Prelims: Current Events**

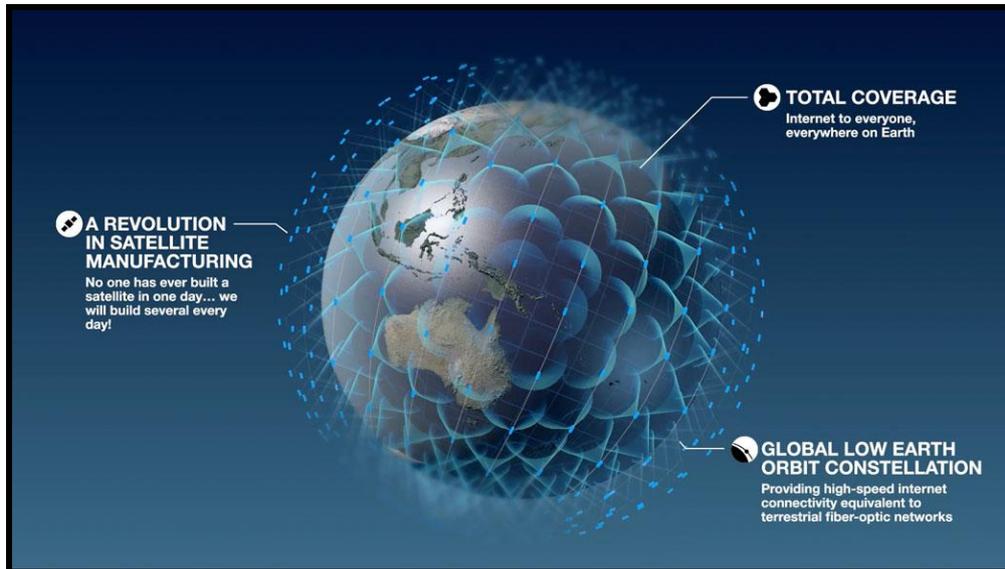


Union Education Minister Ramesh Pokhriyal ‘Nishank’ will be conferred with the Vatayan Lifetime Achievement Award at a virtual ceremony on 21st November, 2020.

- Vatayan International Awards given by the Vatayan-UK organization in London, honours poets, writers and artists for their exemplary work in their respective fields.
- Earlier many eminent personalities like Prasoon Joshi, Javed Akhtar have been awarded the Vatayan Awards for their literary contribution.
- Shri Pokhriyal has penned more than 75 books on wide ranging issues, which have also been translated into many national and foreign languages.
- He has earlier received several awards in the field of literature including Sahitya Bharati Award by the then Prime Minister Shri Atal Bihari Vajpayee, Sahitya Gaurav Samman by Former President Dr. A.P.J. Abdul Kalam etc.

## Topic 22: ONE WEB SATELLITE

*Importance for Prelims: Science & tech*



UK joins with Bharti to take control of failed space start-up One Web, a low earth orbit satellite operator.

- One Web's emergence from distressed businesses use to reorganize themselves, gives a significant boost to the UK's ambitions to become a major commercial space player and to develop cutting-edge positioning technology that could be used to cement international security alliances.
- The company was one of the earliest to propose a mega-constellation to deliver internet to remote parts of the world but SpaceX's Starlink constellation already has about 800 satellites in low-earth orbit against One Web's 74.
- The initial focus will be to deliver a viable commercial internet service to the UK and the Arctic region by autumn next year.
- One Web intends to launch 36 more satellites on December 17 and will accelerate launches next year to complete its target of having 650 satellites in orbit by 2022 for its global coverage.
- Goal will be to launch global commercial internet service focusing on remote areas by 2022.

## Topic 23: M-SAND POLICY

*Importance for Prelims: Environment*



The M-sand policy is likely to come into force in a few months with more Changes, about issues such as license and transport, incorporated in it.

- Manufactured sand is produced from hard granite stone by crushing. It is manufactured using technology like High Carbon steel hit the rock and then rock on rock process which is synonymous to that of natural process undergoing in river sand information.
- Limited availability of river and imported sand, the use of M-sand in construction activity had risen by 60-65%. Around 22,000 loads of M-sand were being supplied across the State, of which nearly 5,000 loads were sent to Chennai and neighboring areas.
- The crushed sand is cubical with grounded edges, washed and graded to as a construction material.
- The size of the M-Sand is less than 4.75mm.
- There were around 320 manufacturing units in the State that had been approved by the Tamil Nadu Pollution Control Board for operation.

### Benefits of M-Sand:

- M-Sand does not have the presence of impurities such as clay, dust and silt coatings, increase water requirement as in the case of river sand which impair bond between cement paste and aggregate. Thus, increased quality and durability of concrete.
- It does not contain an organic and soluble compound that affects the setting time and properties of cement, thus the required strength of concrete can be maintained.
- M-Sand can be crushed from hard granite rocks, it can be readily available at the nearby place, reducing the cost of transportation from far-off river sand bed.

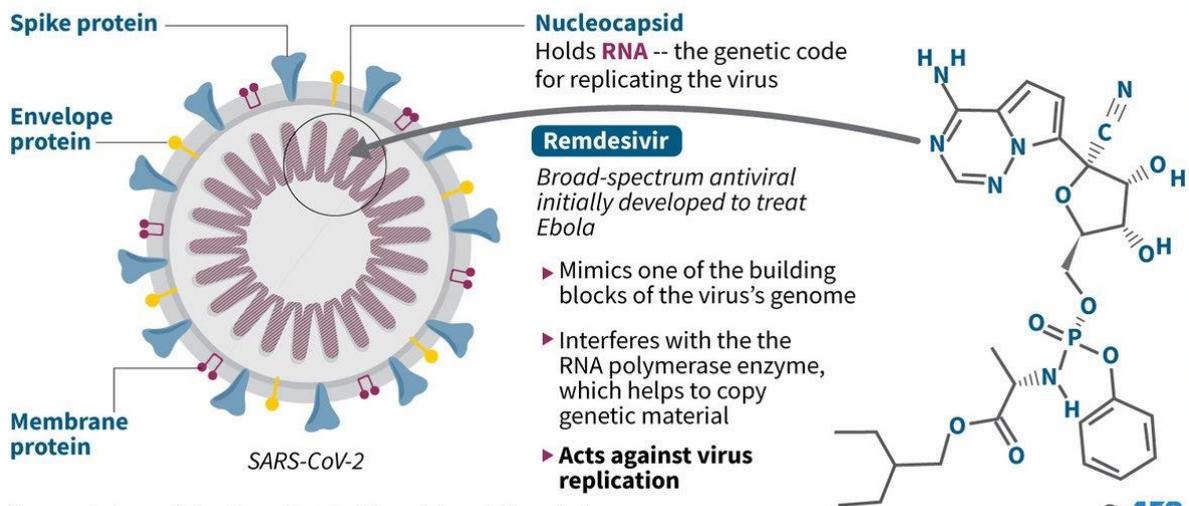
## Topic 24: REMDESIVIR

Importance for Prelims: Science & tech



### Remdesivir: how it attacks a virus

Results of clinical trials on COVID-19 patients published April 29 showed patients recovered 30% faster than those on a placebo



- Remdesivir is designed to obstruct the stage of replication, when the virus creates copies of itself, followed endlessly by the copies creating copies of themselves.
- Once the virus enters the human cell, it releases its genetic material, which is then copied using the body's existing mechanism.

- At every stage of infection, various human proteins, virus proteins, and their interactions come into play.
- At the replication stage, the key viral protein at play is an enzyme called RdRp (an enzyme is a kind of protein that speeds up chemical reactions within a cell).
- It is RdRp that makes the copies, by processing components of the RNA of the virus.
- University of Alberta researchers called it the “engine” of the virus in a paper last week, in which they described the action of Remdesivir against this “engine”.
- In scientific literature, such an enzyme is called a polymerase (the p is RdRp stands for polymerase) or a replica.
- In any case, this is the enzyme that is targeted by Remdesivir.

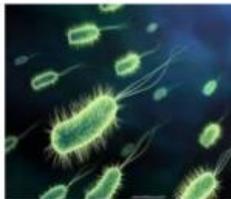
## Topic 25: BIOTERRORISM

*Importance for Prelims: Science & tech*

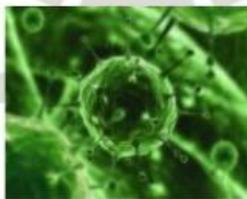
### What is Bioterrorism ?

- **Bioterrorism** is terrorism by intentional release or dissemination of biological agents such as bacteria, viruses, or toxins.
- These are used to cause illness or death in people, animals, or plants.
- Biological agents can be spread through the air, through water, or in food.

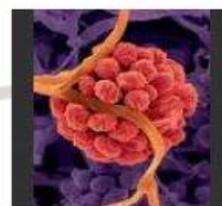
➤ Bacteria



Viruses



Toxins



Formulating Effective laws to counter bioterrorism is one of the lessons learned from the pandemic , a parliamentary panel on health noted.

#### **Bioterrorism or Biological Attack:**

- It is the intentional release of viruses, bacteria, or other germs that can sicken or kill people, livestock, or crops.

#### **Biological Weapons:**

- They use microorganisms and natural toxins to produce disease in humans, animals, or plants.
- These agents can be deployed as biological weapons when paired with a delivery system, such as a missile or aerosol device.
- Bacillus anthracis, the bacteria that causes anthrax, is one of the most likely agents to be used in a biological attack.

- The most destructive bioterrorism scenario is the airborne dispersion of pathogens over a major population region.
- Tropical agricultural pathogens or pests can be used as anticrop agents to hamper food security worldwide.

### **Combating Bioterrorism**

- The European Union (EU), Russia, and China are finding ways to deter bioterrorism and biowarfare.
- The aim is to make it harder for terrorists to obtain the resources for designing biological weapons.

### **Intelligence Sharing & Rapid Detection**

- Global intelligence agencies should operate together and share credible intelligence.
- Combining human resources, laboratory resources, and information supervision in novel, legal and satisfactory ways that allow for timely detection and categorization of hazards.
- Rapid detection and surveillance are important for an efficient response to a bioterror strike.

### **Pathogen Analysis**

- Speedy, uniform techniques that allow for the discovery of an extensive range of pathogens used as biological weapons in a measurable fashion.
- Pathogens are a usual part of the environment and can complicate detection attempts.
- **Strengthening the Biological and Toxin Weapons Convention The Biological and Toxin Weapons Convention (BTWC) of 1972** prohibits signatory nations to develop, produce, stockpile or otherwise, acquire or retain:
- Microbial or other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no justification

for prophylactic, protective, or other peaceful purposes.

- Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.
- However, there is no exact authentication method that can ensure compliance with the BTWC. Therefore, efforts must be made to strengthen the BTWC so that it helps to uncover and successfully prevent biological weapons programs.
- **India ratified and pledged to abide by its obligations in 2015.**

## Topic 26: PUSA DECOMPOSER

*Importance for Prelims: Agriculture*



The Indian Agriculture Research Institute has developed a microbial cocktail – Pusa Decomposer – that can turn crop residue into manure in 20-25 days.

### **PUSA Decomposers:**

- The decomposers are in the form of capsules made by extracting fungi strains that help the paddy straw to decompose at a much faster rate than usual.
- The fungi help to produce the essential enzymes for the degradation process.

### **Decomposer Mixture:**

- It involves making a liquid formulation using decomposer capsules and fermenting it over 8-10 days and then spraying the mixture on fields with crop stubble to ensure speedy bio-decomposition of the stubble.
- The farmers can prepare 25 liters of the liquid mixture with 4 capsules, jaggery, and chickpea flour.

- The mixture is sufficient to cover 1 hectare of land.

### **Time to Decompose:**

- It takes around 20 days for the degradation process to be completed.
- Under usual circumstances, shredded and watered paddy straw, which is mixed with soil, takes at least 45 days to decompose.
- It does not give enough time for farmers to prepare fields for the wheat crop on time.

### **Benefits:**

- The decomposer improves the fertility and productivity of the soil as the stubble works as manure and compost for the crops and lesser fertilizer consumption is required in the future.
- The soil loses its richness due to stubble burning and it also destroys the useful bacteria and fungi in the soil, apart from causing harm to the environment.
- It is an efficient and effective, cheaper, doable, and practical technique to stop stubble burning.
- It is an eco-friendly and environmentally useful technology and will contribute to achieving Swachh Bharat Mission.

## Topic 27: SENTINEL and SATELLITE

*Importance for Prelims: Science & tech*



The Copernicus Sentinel-6 Michael Freilich satellite, designed to monitor oceans, was launched from the Vandenberg Air Force base in California aboard a Space X Falcon 9 rocket.

- The mission, called the Jason Continuity of Service (Jason-CS) mission, is designed to measure the height of the ocean, which is a key component in understanding how the Earth's climate is changing.
- The spacecraft consists of two satellites, one of them launched on Saturday, and the other, called Sentinel-6B, to be launched in 2025.
- This is a part of the next mission dedicated to measuring changes in the global sea level.
- Other satellites that have been launched since 1992 to track changes in

the oceans on a global scale include the TOPEX/Poseidon, Jason-1 and OSTN/Jason- 2, among others.

- It has been developed jointly by the European Space Agency (ESA), NASA, European Organisation for the Exploitation of Meteorological Satellites (Eumetsat), the USA's National Oceanic and Atmospheric Administration (NOAA) and the EU, with contributions from France's National Centre for Space Studies (CNES).
- According to NASA, the satellite will ensure the continuity of sea-level observations into the fourth decade and will provide measurements of global sea level rise.
- Further, the data it collects will support operational oceanography, by providing improved forecasts of ocean currents, wind and wave conditions.
- This data will allow improvements in both short-term forecasting for weather predictions in the two-to-four-week range (hurricane intensity predictions), and long-term forecasting, for instance for seasonal conditions like El Niño and La Niña.

### **Why is it important to measure the height of the ocean?**

- As per NASA, it is possible to observe the height of the oceans on a global scale and monitor critical changes in ocean currents and heat storage only from space.
- Data from satellites such as Sentinel-6 help scientists foresee the effects of the changing oceans on the climate.
- Further, in order to measure and track changes in the oceanic heat budget, scientists need to know the ocean currents and heat storage of the oceans, which can be determined from the height of the sea surface.

## Topic 28: IRNSS

*Importance for Prelims: Science & tech*

IRNSS

### Indian Regional Navigation Satellite System

IRNSS (NavIC) is designed to provide accurate real-time positioning and timing services to users in India as well as region extending up to 1,500 km from its boundary

**NAVIGATION CONSTELLATION CONSISTS OF SEVEN SATELLITES**

**3** in geostationary earth orbit (GEO) and

**4** in geosynchronous orbit (GSO) inclined at 29 degrees to equator

Each sat has three rubidium atomic clocks, which provide accurate locational data

**IT WILL PROVIDE TWO TYPES OF SERVICES**

**1 Standard positioning service** | Meant for all users

**2 Restricted service** | Encrypted service provided only to authorised users (military and security agencies)

**Applications of IRNSS are:**  
Terrestrial, aerial and marine navigation; disaster management; vehicle tracking and fleet management; precise timing mapping and geodetic data capture; terrestrial navigation aid for hikers and travellers; visual and voice navigation for drivers

While **American GPS** has **24 satellites** in orbit, the number of sats visible to ground receiver is limited. In **IRNSS**, **four satellites** are always in geosynchronous orbits, hence always visible to a receiver in a region **1,500 km** around India.

Geostationary earth orbit      Geosynchronous orbit

India became the fourth country in the world to have its independent Regional navigation satellite system recognized by the International Maritime Organization (IMO) as a part of the World Wide Radio Navigation System (WWRNS).

- The IRNSS is an independent regional navigation satellite system developed by India.
- It is designed to provide accurate position information service to assist in the navigation of ships in the Indian Ocean waters.
- It could replace the US-owned Global Positioning System (GPS) in the Indian Ocean extending up to approximately 1500 km from the Indian boundary.
- The system can offer a position accuracy of more than 20 m within India which is the primary area of service.
- The two kinds of services provided by IRNSS will be: Standard Positioning Service (SPS) and Restricted Service (RS).

#### **IMO Recognition:**

- The Maritime Safety Committee (MSC) of the IMO recognized the IRNSS as a component of the World-wide Radio Navigation System (WWRNS) during its 102nd session.
- With the recognition as a component of the of the WWRNS, the Indian navigation system is similarly placed as GPS, most commonly used by marine shipping vessels across the world or the Russian Global Navigation Satellite System (GLONASS).
- Unlike GPS, however, IRNSS is a regional and not a global navigation system.

## Topic 29: MEGHALAYA GLOWING MUSHROOM

*Importance for Prelims: Environment*



A mushroom documentation project in the forests of Northeast India has Revealed not only 600 varieties of fungi, but also led to a new discovery: a Bioluminescent-- or light emitting -- variety of mushroom.

- The new species — named *Roridomyces phyllostachydis* — was first sighted on a wet August night near a stream in Meghalaya’s Mawlynnong in East Khasi Hills district and later at Krang Shuri in West Jaintia Hills district.
- It is now one among the 97 known species of bioluminescent fungi in the world.

### **Bioluminescence**

- Bioluminescence is the property of a living organism to produce and emit light.
- Animals, plants, fungi and bacteria show bioluminescence.
- Bioluminescent organisms are usually found in the ocean environments, but they are also found on terrestrial environments.
- The colour of the light emitted by the organism depends on their chemical properties.

- In the case of fungi, the luminescence comes from the enzyme, luciferase. The [green] light emits when luciferans is catalysed by the enzyme luciferase, in the presence of oxygen.

## Topic 30: AAROGYA SANJEEVANI

*Importance for Prelims: Economy*

### Features of standard Health Insurance Policy- Arogya Sanjeevani

<b>Eligibility</b>	<b>:</b> Anyone who is of a minimum of 18 years and a maximum of 65 years.
<b>Premium payment frequency</b>	<b>:</b> Premium for the policy can be paid annually, half-yearly, quarterly or monthly
<b>Policy period</b>	<b>:</b> One Year, with lifetime renewal option
<b>Sum Assured</b>	<b>:</b> Cover amount ranges from 1 lakh to 5 lakh with multiple of 50,000 Thousand

The standardized health insurance policy, Arogya Sanjeevani was designed by the Insurance Regulatory and Development Authority with many interesting features. Every general insurance or health insurance company is mandated to offer it from April 1, 2020.

- Under the guidelines, IRDAI asked the general and health insurers to offer product that can take care of basic health needs of customers with maximum sum insured of Rs 5 lakh and a minimum of Rs 1 lakh.
- The product will be named as Arogya Sanjeevani Policy, succeeded by the name of the insurance company. No other name is allowed in any of the documents.
- The standard product should have the basic mandatory covers, no add-ons or optional covers are allowed to be offered along with the standard product and the insurer may determine the price keeping in view the covers proposed to be offered subject to complying with guidelines.
- The standard product shall be offered on indemnity basis only and the policy tenure shall be for a period of one year.

## Topic 31: INDIA'S MIGRATORY BIRD SPECIES

*Importance for Prelims: Environment*

**WELCOME**  
*Birdie*

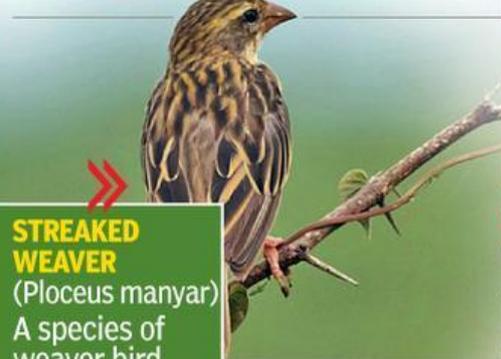
**BLYTH'S REED WARBLER**  
(Acrocephalus dumetorum)  
A migratory species that is found in Nepal, Bangladesh, India, Sri Lanka and Myanmar during winters



**RUFF**  
(Calidris pugnax)  
A wading bird that breeds in Eurasia and a winter migratory to India



**STREAKED WEAVER**  
(Ploceus manyar)  
A species of weaver bird found in India



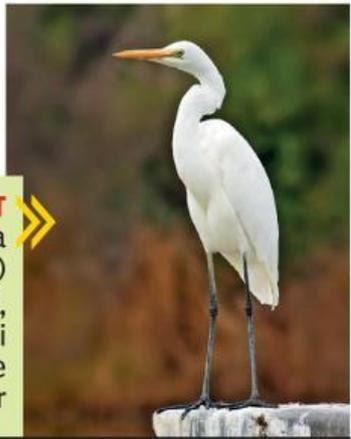
**WHISKERED TERN**  
(Chlidonias hybrid)  
A migratory bird to India; breeds in warmer parts of Europe and Asia



**INDIAN SPOT-BILLED DUCK**  
(Anas poecilorhyncha)  
A native bird that breeds throughout the Indian subcontinent



**EGRET**  
(Ardea alba modesta)  
A native bird, found in Basai across the year



After a two-year lull in the wake of Cyclone Gaja that ravaged the Cauvery delta districts, birds have, in good numbers, visited the Vaduvur, Udhayamarthandam and Point Calimere sanctuaries.

- India's migratory species- The Asian elephant, great Indian bustard, Bengal florican, oceanic white-tip shark, urial and smooth hammerhead shark are among the major migratory species.
- At the global level, more than 650 species are listed under the Conservation of Migratory Species (CMS) appendices and India, with

over 450 species, plays a very important role in their conservation.

- Largest among the migratory species- The bird family Muscicapidae has the highest number of migratory species and the next highest group of migratory birds is raptors or birds of prey, such as eagles, owls, vultures and kites which are from the family Accipitridae.
- The largest group of mammals is definitely bats belonging to the family Vespertilionidae and Dolphins are the second-highest group of mammals with nine migratory species of dolphins.
- Fishes make up another important group of migratory species. The total number of migratory fish species from India under CMS now stands at 24.

#### **Flyways used by the migratory birds:**

- There are three flyways (flight paths used by birds): the Central Asian flyway, East Asian flyway and East Asian–Australasian Flyway.

#### **Decline in bird's population:**

- Recently, according to the State of India's Birds 2020 (SoIB) report, there are growing threats to the population of these species.
- They face a growing threat from loss of habitat due to human activity, the widespread presence of toxins including pesticides, hunting and trapping for the pet trade.

#### **Additional Information:**

##### **Zoological Survey of India (ZSI):**

- It is a subordinate organization of the Ministry of Environment and Forests, Govt. of India and was established in 1916 as a national centre for faunistic survey and exploration of the resources.
- The headquarters of ZSI is based at Kolkata.
- Objective- Its major objectives are to study of fauna of states, conducting survey on the species, research and documentation on various aspects of

animal taxonomy in Indian subcontinent.

- ZSI publishes Red Data Book on Indian Animals and it was first published in 1983 which is similar to Red Data Book published by IUCN.

## Topic 32: DEEP SEA MISSION

*Importance for Prelims: Economy*

**DIGGING DEEP**

Potato-shaped polymetallic nodules are a source of metals such as nickel, cobalt, copper, manganese and iron

**HOW WILL IT BE DONE?**

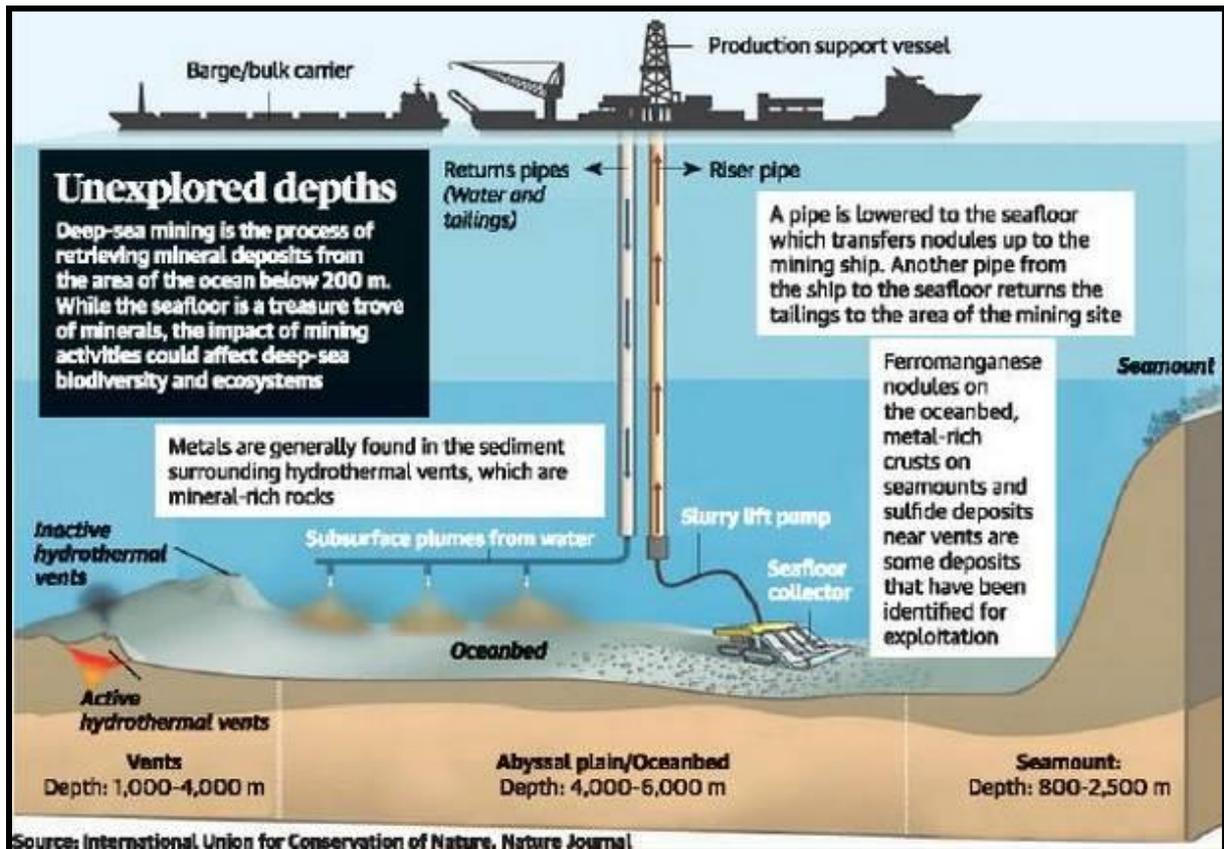
- 1 Survey identifies areas where polymetallic nodules are present
- 2 Ship carrying integrated mining system (IMS) will be anchored at site
- 3 Soil tester will be sent down to evaluate seabed soil properties for load bearing and shear strength
- 4 A 12-tonne crawler will be sent to the seabed
- 5 Cameras on crawler send images to the ship
- 6 Pump sucks the nodule, transfers it to a crusher in crawler
- 7 Crushed granules pumped to ship through a buffer
- 8 Minerals segregated in ship and transported to land

**WHAT WILL BE MINED?**

- > Polymetallic nodules, a rock-like solid mass formed by accumulation of matter within sediments at the bottom of the sea
- > Iron, manganese, nickel, cobalt and copper are found in nodules
- > India to explore polymetallic nodules in the central Indian Ocean basin for 15 years
- > Estimated polymetallic nodule resource potential is 380 million tonnes containing 4.7 million tonnes of nickel, 4.29 million tonnes of copper, 0.55 million tonnes of cobalt and 92.59 million tonnes of manganese

**FUTURE**

- > Mining equipment tested at 500m depth so far
- > First stage will be conducted by 2019-end with crawler for locomotion trials and pumping system at 6,000m depth
- > Prototype will be ready in 2022 and go through final tests



India will soon launch an ambitious ‘Deep Ocean Mission’ that envisages Exploration of minerals, energy and marine diversity of the underwater world, a vast part of which still remains unexplored.

- The focus of the mission will be on deep-sea mining, ocean climate change advisory services, underwater vehicles and underwater robotics related technologies.
- Two key projects planned in the ‘Deep Ocean Mission’ report include a desalination plant powered by tidal energy and a submersible vehicle that can explore depths of at least 6,000 metres.

### Significance of the Mission:

- The ‘Deep Ocean Mission’ plan will enable India to develop capabilities to exploit resources in the Central Indian Ocean Basin (CIOB).
- India has been allotted 75,000 square kilometres in the Central Indian Ocean Basin (CIOB) by UN International Sea Bed Authority for

exploration of polymetallic nodules.

- CIOB reserves contain deposits of metals like iron, manganese, nickel and cobalt.

**Potential:**

- It is envisaged that 10% of recovery of that large reserve can meet the energy requirement of India for the next 100 years.
- It has been estimated that 380 million metric tonnes of polymetallic nodules are available at the bottom of the seas in the Central Indian Ocean.

**Polymetallic nodules**

- Polymetallic nodules (also known as manganese nodules) are potato-shaped, largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea.

## Topic 33: GLOBAL CONFERENCE ON CRIMINAL FINANCE

*Importance for Prelims: International events*



**Composition:** Besides manganese and iron, they contain nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium, of which nickel, cobalt and copper are considered to be of economic and strategic importance.

**Context:** Over 2,000 representatives from 132 countries attended the virtual 4th Global Conference on Criminal Finances and Crypto currencies organized by the Interpol, Europol and the Basel Institute on Governance.

- The conference is an initiative of the Working Group on Crypto currencies and Money Laundering established in 2016 by the three organizations.
- It is launched with an objective of strengthening knowledge, expertise and best practices for investigations into financial crimes and intelligence on virtual assets and crypto currencies.
- The conference underlined the need to expand capabilities on ways to probe virtual assets and regulate virtual asset service providers to prevent money laundering.
- The conference's agenda included trends and investigations on crypto currency related offences, exploring criminal flows and operations in the dark markets, ransom ware and sextortion case studies, money laundering involving virtual assets, and the transfer of drug proceeds using crypto

currencies.

## Topic 34: SITMEX

*Importance for Prelims: Defence*



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

- The first edition of SITMEX, hosted by Indian Navy, was conducted off Port Blair in September 2019.
- The SITMEX series of exercises are conducted to enhance mutual interoperability and imbibing best practices between **IN, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN)**.
- The 2020 edition of the exercise is being hosted by RSN.

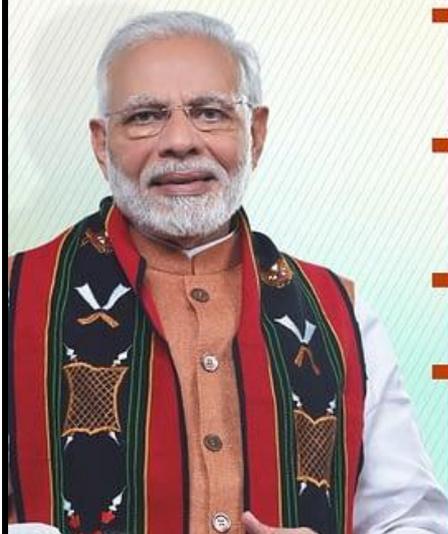
## Topic 35: BRU SETTLEMENT CRISIS

*Importance for Prelims: Security*



### MODI GOVT SIGNS HISTORIC AGREEMENT TO END BRU-REANG REFUGEE CRISIS

Around 34,000 Internally Displaced people to be settled in Tripura



- The 23-year-old crisis has been resolved by Modi Govt
- Agreement between Govt of India, State Govt of Tripura and Mizoram and Bru-Reang representatives signed
- Around Rs. 600 crores to be given to Tripura for rehabilitation and all-round development of refugees
- Each of the displaced families would be given 40x30 sq.ft. residential plots
- Other benefits including a fixed deposit of Rs. 4 lakhs to be provided

Readfull: [bit.ly/Bru-ReangRefugee](https://bit.ly/Bru-ReangRefugee)

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[t](#)
[v](#)
[i](#)
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Centre, Tripura, and Mizoram have signed an agreement with the Bru/Reang community that promises to end their 23-year-old internal displacement crisis.

- **Bru or Reang** is a community indigenous to **Northeast India**, living mostly in Tripura, Mizoram and Assam. In **Tripura, they are recognised as a Particularly Vulnerable Tribal Group.**
- In Mizoram, they have been targeted by groups that do not consider them indigenous to the state.
- In 1997, following ethnic clashes, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram and were accommodated in relief camps in Tripura.
- Since then, 5,000 have returned to Mizoram in eight phases of repatriation, while 32,000 still live in six relief camps in North Tripura.
- In June 2018, community leaders from the Bru camps signed an agreement with the Centre and the two state governments, providing for repatriation in Mizoram.
- But most camp residents rejected the terms of the agreement.
- The camp residents say that the agreement doesn't guarantee their safety in Mizoram.

### **New Agreement**

- All Bru currently living in temporary relief camps in Tripura will be settled in the state, if they want to stay on.
- The Bru who returned to Mizoram in the eight phases of repatriation since 2009, cannot, however, come back to Tripura.
- The Centre will implement a special development project for the resettled Bru; this will be in addition to the Rs 600 crore fund announced for the process, including benefits for the migrants.
- Each resettled family will get 0.03 acre (1.5 ganda) of land for building a home, Rs 1.5 lakh as housing assistance, and Rs 4 lakh as a one-time cash

benefit for sustenance.

- They will also receive a monthly allowance of Rs 5,000, and free rations for two years from the date of resettlement.
- Bru tribals would be included in Tripura's voter list.