

# UPSC Monthly Current Affairs, Dec 2020

## Polity and Governance

### Steps taken to classify transgenders

#### Why in the news?

- The **Delhi High Court** has recently asked the **National Crime Records Bureau (NCRB)** to **explain what steps** have been taken to **recognise and classify transgenders** as a **separate third gender** in its annual publication of **Prison Statistics India**.

#### Recognition of transgenders

- In 2013, the **Government set up an expert committee** to study the **problems of transgenders** and recommend solutions.
- In 2014, in **National Legal Services Authority v. Union of India case**, the **Supreme Court of India** declared **transgender people** to be a **'third gender'**.
- It also affirmed that the **fundamental rights** granted under the **Constitution of India** would be **equally applicable to transgender people** and gave them the **right to self-identification of their gender as male, female or third-gender**.
- In 2016, the **Government introduced its own Bill** in the Lok Sabha, and it was referred to a **Standing Committee**.
- However, with the **dissolution of the 16th Lok Sabha (2014-19)**, that **Bill lapsed**.
- In 2019, the **Parliament passed the Transgender Persons (Protection of Rights) Bill, 2019**.
- In 2020, **Government established the National Council for Transgender Persons**.

#### About Transgender Persons (Protection of Rights) Act, 2019

- The **Transgender Persons (Protection of Rights) Act, 2019** is an **act of the Parliament of India** with the objective to **provide for protection of rights of transgender people, their welfare, and other related matters**.

#### Features of Transgender Persons Act, 2019

##### Definition of a Transgender Person:

- The **Act defines a transgender person** as one whose **gender does not match the gender assigned at birth**.
- It includes **transmen and trans-women, persons with intersex variations, genderqueers, and persons with socio-cultural identities, such as kinnar and hijra**.

##### Certificate of Identity

- The **Act states** that a **transgender person** shall have the **right to self-perceived gender identity**.
- A **certificate of identity** can be obtained at the **District Magistrate's office** and a **revised certificate** is to be **obtained if sex is changed**.
- The Act has a **provision that provides transgender the right of residence with parents and immediate family members**.

### Prohibition against discrimination

- The **Act prohibits discrimination** against a **transgender person** in **various sectors** such as **education, employment, and healthcare** etc.

### Punishment

- It **states that the offences** against transgender persons will attract **imprisonment** between **six months and two years**, in **addition to a fine**.

### **Note:**

- It also seeks to establish **National Council for Transgender persons**.

**Topic- GS Paper II– Governance**

**Source- The Hindu**

### Honey Mission

#### **Why in the news?**

- Recently, responding to the **Prime Minister's call for Aatmanirbhar Bharat**, **KVIC engaged hundreds of migrant workers in Uttar Pradesh and Bihar** and engaged them with its **flagship schemes like Honey Mission**.



#### **About Honey Mission**

- The honey mission **was launched by KVIC in 2017** in line with the Prime Minister's call for **'Sweet Revolution' in 2016**.
- The **Mission aimed at creating employment** for the **Adivasis, farmers, unemployed youth, and women** by roping them in **beekeeping while also increasing India's honey production**.
- It also **aims to promote beekeeping for increasing the crop productivity and pollination services** avenue for **beekeepers and farmers**.

#### **Under this mission KVIC provides beekeepers:**

- Practical training about examination of honeybee colonies,
- Acquaintance with apicultural equipment's,
- Identification and management of bee enemies and diseases,
- Honey extraction and wax purification,
- Management of bee colonies in all seasons.

## Related Information

### About Khadi and Village Industries Commission (KVIC)

- It is a **statutory body** established under the **Khadi and Village Industries Commission Act, 1956**.
- The KVIC is charged with the **planning, promotion, organisation and implementation of programmes** for the **development of Khadi and other village industries in the rural areas in coordination** with other **agencies engaged in rural development** wherever necessary.
- It functions under the **Ministry of Micro, Small and Medium Enterprises**.
- It is a nodal implementation agency of the Prime **Minister Employment Generation Programme (PMEGP)** at the national level.
- **PMEGP** is a **major credit-linked subsidy programme** being implemented by **MSME Ministry since 2008-09** and will continue till 2019-20.

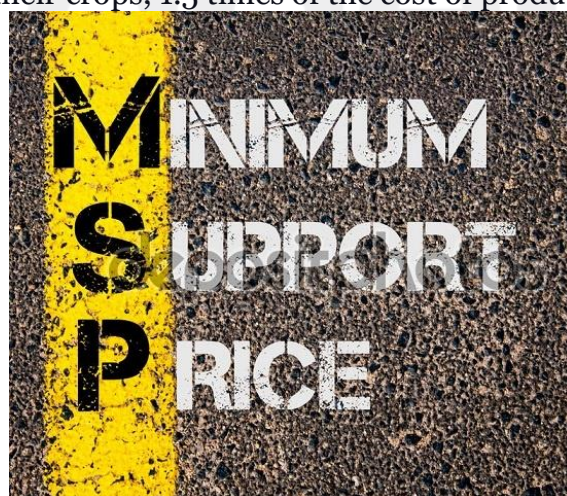
**Topic- GS Paper II– Governance**

**Source- The Hindu**

### MSP Calculation in India

#### Why in the news?

- Recently, the major demand of the protesting farmers has been that the government guarantee in writing the MSP system, which assures them of a fixed price for their crops, 1.5 times of the cost of production.



#### About Minimum Support Price (MSP)

- It is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.
- The Government of India announces the minimum support prices at the beginning of the sowing season for certain crops based on the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- MSP is price fixed by the Government of India to protect the producer - farmers - against excessive fall in price during bumper production years

### How is this MSPs being fixed before Union Budget 2018?

- The Commission for Agricultural Costs & Prices (CACP) in the Ministry of Agriculture would recommend MSPs for 23 crops.
- These included 14 grown during the Kharif/post-monsoon season and six in rabi/winter (wheat, barley, chana, masur, mustard and safflower), apart from sugarcane, jute and copra.
- The CACP considered various factors while recommending the MSP for a commodity, including the cost of cultivation.

### These factors are:

- The supply and demand situation for the commodity.
- Market price trends (domestic and global) and parity vis-à-vis other crops and
- Implications for consumers (inflation), environment (soil and water use) and terms of trade between agriculture and non-agriculture sectors.

### What changed with the 2018 budget?

- The Budget for 2018-19 announced that MSPs would henceforth be fixed at 1½ times of the production costs for crops as a "pre-determined principle".
- The Commission for Agricultural Costs & Prices job now was only to estimate production costs for a season and recommend the MSPs by applying the 1.5-times formula.

### How was this production cost arrived at?

- The CACP does not do any field-based cost estimates itself.
- It merely makes projections using state-wise, crop-specific production cost estimates provided by the Directorate of Economics & Statistics in the Agriculture Ministry.
- The latter is, however, generally available with a three-year lag.

The CACP further projects three kinds of production cost for every crop, both at the state and all-India average levels.

1. **A2:** it covers all paid-out costs directly incurred by the farmer — in cash and kind — on seeds, fertilizers, pesticides, hired labour, leased-in land, fuel, irrigation, etc.
2. **A2+FL:** It includes A2 plus an imputed value of unpaid family labour.
3. **C2:** It is a more comprehensive cost that factors in rentals and interest forgone on owned land and fixed capital assets, on top of A2+FL.

### Cost on which the 1.5-times formula was to be computed

- The 1.5-times MSP formula initially recommended by the National Commission for Farmers headed by **M S Swaminathan should have been applied on the C2 costs.**
- Cost of production is one of the important factors in the determination of MSPs.
- CACP considers A2+FL and C2 costs while recommending MSP.
- **CACP reckons only A2+FL cost for return.**
- However, C2 costs are used by CACP primarily as benchmark reference costs (opportunity costs) to see if the MSPs recommended by them at least cover these costs in some of the central producing States.

### Topic- GS Paper II—Governance

Source-Indian Express

## Convicted legislators can't be barred for life from polls': Indian Govt

### Why in the news?

- The **Central government** has recently told the **Supreme Court** that it rejected the **idea of barring convicted legislators** for life from contesting **elections, forming, or becoming an office-bearer** of a political party.
- The **Union Ministry of Law and Justice** said an elected representative of the **people could not be equated with public servants** who are banned for a lifetime on conviction.



### Related Information

#### Representation of People Act, 1951

- **Article 324 to 329 of Part XV of the Constitution** deals with the electoral system in our country.
- **Constitution allows Parliament** to make provisions in **all matters relating to elections** to the **Parliament and State Legislatures**.
- In exercise of this power, the **Parliament has enacted laws** like the **Representation of the People Act 1950 (RPA Act 1950)**, **Representation of the People Act 1951 (RPA Act 1951)** and **Delimitation Commission Act of 1952**.

#### Disqualification of MPs and MLAs

- The **Representation of the People Act of 1951** lays down specific rules for **disqualification of Member of Parliament (MPs) and Member of the Legislative Assembly (MLAs)**.
- **Section 8 (3)** of the Act states that if an **MP or MLA** is convicted for any other **crime and is sent to jail for two years or more**, he/ she will be **disqualified for six years** from the time of release.
- Even if a person is on **bail after the conviction** and his appeal is pending for disposal, he is **disqualified from contesting an election**.
- **Section 8(4)** allowed **convicted MPs, MLAs, and MLCs** to continue in their posts, **provided they appealed against their conviction/sentence in higher courts within three months** of the **date of judgment by the trial court**.
- The **Supreme Court in July 2013** struck down **section 8(4) of the RPA, 1951** and declared it **ultra vires** and held that the **disqualification takes place from the date of conviction**.

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Source-The Hindu

## Vanchit Ikai Samooh aur Vargon ki Aarthik Sahayta (VISVAS) Yojana

### Why in the news?

- **National Scheduled Castes Finance and Development Corporation (NSFDC) and National Backward Classes Finance & Development Corporation (NBCFDC) under M/O Social Justice & Empowerment entered into Memorandum of Agreements with Central Bank of India for implementation of Vanchit Ikai Samooh aur Vargon ki Aarthik Sahayta (VISVAS) Yojana.**



### About the Vanchit Ikai Samooh aur Vargon ki Aarthik Sahayta (VISVAS) Yojana

- It is an **interest subvention Scheme of Ministry of Social Justice & Empowerment, Government of India** for financial empowerment of **economically marginalized OBC/SC SHGs & Individuals.**
- The scheme will benefit **OBC/SC SHGs with loans/borrowings up to Rs.4.00 Lakh and OBC/SC individuals with loan/borrowing up to Rs.2.00 Lakh** with an **immediate interest subvention benefit of 5% directly into the standard accounts of borrowing SHGs/beneficiaries.**
- The scheme will **significantly help to expand the outreach to OBC and SC members and reduce interest burden** in these times of pandemic.

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Source- PIB

## Urban Quality of Life Index

### Why in the news?

- Recently, **IIT-Bombay researchers** have released an **Urban Quality of Life Index.**

### About the Urban Quality of Life Index

- The **index has compared the quality of life** in various cities in **India and ranked them based on various categories such as water, power, electricity, literacy rate, the employment rate, among others.**
- For the first time, the **index has factored in gender parity.**

## IIT-B RANKING OF INDIAN CITIES

Index	Highest ranked	Lowest ranked
Basic amenities	Pune	Patna
Economic development	Mumbai	Patna
Safety and security	Kolkata	Patna
Transportation access	Delhi	Indore
Environmental impact	Mumbai	Lucknow
Infrastructure development	Kolkata	Patna
Gender role	Chennai	Patna

### Highlights

- Mumbai tops the list of 14, followed closely by Delhi, Kolkata and Chennai.

### Gender Parity

- Among Gender Parity, **Chennai is the most women-friendly city** and **Patna the least**.

### Crime against Women

- **Jaipur** has the **highest crime rate against women**, and **Chennai** recorded the **lowest crime against women**.

### Literacy

- The **gap in literacy rate between men and women** is the widest in **Jaipur (13.2%)** and **lowest in Kolkata (5.4%)**.
- **Literacy** was the **highest in Pune (91%)** and the **lowest in Hyderabad (83%)**.

### Unemployment

- The **unemployment levels for women in Patna are higher** than the other cities; the **gap stood at 346**, which is four times the **urban average score of 73**.

### Topic- GS Paper II–Governance

Source- TOI

### Operation Nigha

#### Why in the news?

- Recently, the **officials of the Special Enforcement Bureau (SEB)** and the **Andhara police** have conducted raids **under ‘Operation Nigha’**.





### About Operation Nigha

- It is an **operation to check sand, liquor and ganja smuggling**, and arrack manufacturing units, **besides inspecting the vehicles** at the borders.
- This is the **first state-wide operation** after the government expanded the **scope of SEB to include vices like gutkha, ganja and gambling**.
- Under **Operation Nigha**, the **police conducted raids** in **villages, mangrove forests, island villages** and some lodges.

**Topic- GS Paper II–Governance**

**Source- The Hindu**

### KLI Project

#### Why in the news?

- The Union Cabinet has recently given its approval for Provision of Submarine Optical Fibre Cable connectivity between Mainland (Kochi) and Lakshadweep Islands (KLI Project).

#### About the KLI Project

- The Project envisages provision of a direct communication link through a dedicated submarine **Optical Fibre Cable (OFC)** between **Kochi and 11 Islands of Lakshadweep** viz. Kavaratti, Kalpeni, Agati, Amini, Androth, Minicoy, Bangaram, Bitra, Chetlat, Kiltan and Kadmat.

#### Financial implications

- The estimated cost of implementation is about Rs. 1072 crore, including operational expenses for five years.
- The Universal Service Obligation Fund would fund the Project.

#### Impact

- Telecommunication connectivity plays a vital role in employment generation.
- It will vastly improve the telecommunication facility in the Lakshadweep Islands by providing large bandwidth.
- The submarine connectivity project will have a vital role for the delivery of e-Governance services at the doorstep of citizens, potential development of fisheries, coconut-based industries and high-value tourism, educational development in term of tele-education and health care in terms of telemedicine facilities.
- It will help in the establishment of numerous businesses, augment e-commerce activities and provide adequate support to educational institutes for knowledge sharing.
- The Lakshadweep Islands have the potential to become a hub of logistic services.

#### Target

- The Project is targeted to be completed by **May 2023**.

#### Implementation Strategy

- Bharat Sanchar Nigam Ltd. (BSNL) has been nominated as Project Execution Agency and Telecommunications Consultant India Ltd. (TCIL) as the Technical Consultant of the Project to assist Universal Service Obligation Fund, Department of Telecommunications.

- The ownership of the asset under the Project will rest with USOF, the funding agency, under the Department of Telecommunications.

### Related Information

#### About the Universal Service Obligation Fund Scheme

- It was created under the Department of Telecommunications in 2002.
- It is a non-lapsable fund, i.e., the unspent amount under a targeted financial year does not lapse and is accrued for next years' spending.
- All credits to this Fund require parliamentary approval and it has a statutory support under Indian Telegraph (Amendment) Act, 2003.
- As per the Indian Telegraph Act 1885 (as amended in 2003, 2006), the Fund is to be utilized exclusively for meeting the Universal Service Obligation.

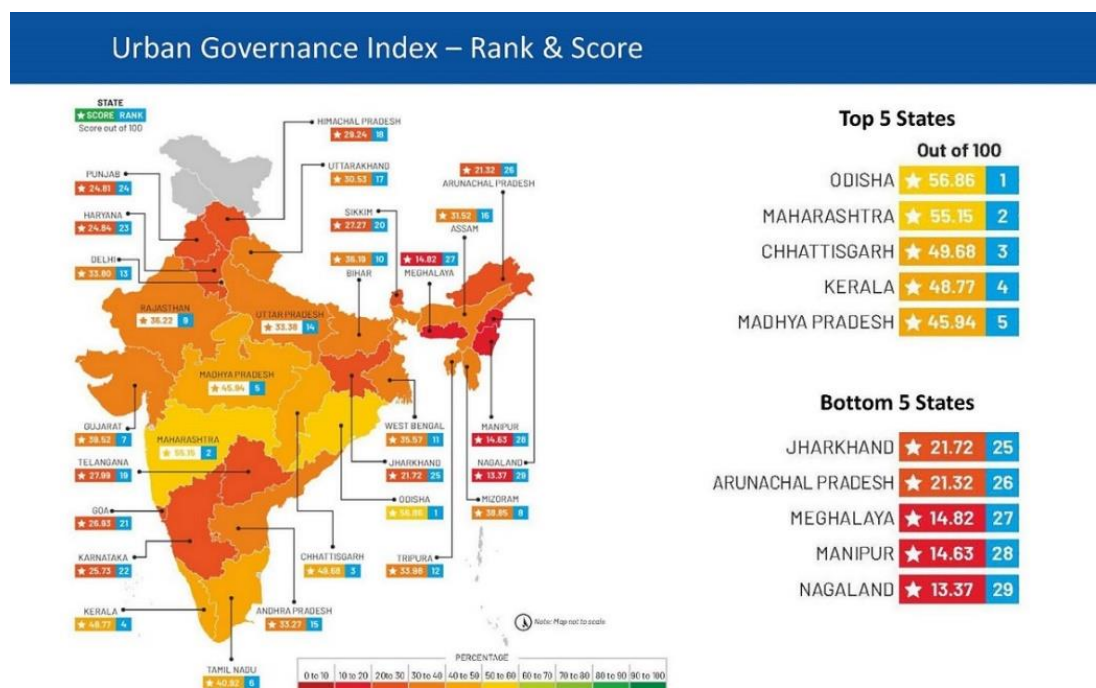
### Topic- GS Paper II– Governance

Source- The Hindu

### Urban Governance Index 2020

#### Why in the news?

- The **Urban Governance Index 2020** has been recently released by **Praja Foundation**, a Mumbai-based think tank.



#### Highlights

- **Odisha** was ranked first in the index followed by **Maharashtra, Kerala, Madhya Pradesh, and Chhattisgarh.**
- **Jharkhand, Arunachal Pradesh, Meghalaya, Manipur, and Nagaland** performed the worst in the index.
- The **National Capital Territory (NCT) of Delhi** ranked **13th.**

#### About Urban Governance Index 2020

- The index ranks states to indicate where they stand in terms of real empowerment of grassroots democracy and local self-government.

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## Themes

- The **ranking** is based on these **main themes**-
  - How empowered elected city representatives and legislative structures are?
  - How empowered the state's city administration is?
  - How empowered the citizens are and finally, the financial empowerment and financial autonomy of the state?
- The **Urban Governance Index 2020** spanned **three years (2017-2020)** in **40 cities across 28 states** as well as the **NCT of Delhi**.

**Topic- GS Paper II–Governance**

**Source- PIB**

## India Workplace Equality Index

### Why in the news?

- **India's first Workplace Equality Index** launched for the **LGBT+ community**.



### About India Workplace Equality Index

- It is the **country's first comprehensive benchmarking tool** for employers to **measure their progress on LGBT+ inclusion** at the workplace.
- It was **launched by non-profit Keshav Suri Foundation**, partnered with **Pride Circle, Stonewall United Kingdom and FICCI**.

### Parameters

- The index measures **nine areas**: policies and benefits, employee lifecycle, employee network group, allies and role models, senior leadership, monitoring, procurement, community engagement and additional work.

### Winners

- **Twenty-one firms** won under the **gold category**, while 18 were placed under silver and 13 got bronze.

### Related Information

- The India Workplace Equality Index comes two years after the **Supreme Court's landmark** reading down of **Section 377**.

## Section 377 Judgements

- Section 377 of the Indian Penal Code 1860, a **relic of British India**, states that **"whoever voluntarily has carnal intercourse against the order of nature with any man, woman or animal shall be punished."**
- This included private consensual sex between adults of the same sex.
- After the **SC judgement (2018)**, provisions of **Section 377 remain applicable** in cases of **non-consensual carnal intercourse** with adults, all acts of carnal intercourse with **minors, and acts of bestiality**.
- Supreme Court stated that the '**Yogyakarta Principles**' on the **Application of International Law in Relation to Issues of Sexual Orientation and Gender Identity**' should be applied as a part of Indian law.

## About Yogyakarta Principles

- It recognizes **freedom of sexual orientation** and **gender identity** as part of **Human Rights**.
- They were outlined in **2006 in Yogyakarta, Indonesia**, by a distinguished group of **International Human Right experts**.

## Landmark Judgements related to issues

### Naz Foundation vs Govt. of NCT of Delhi (2009)

- In this **Judgment the Delhi High Court** struck off section 377, **legalizing consensual homosexual activities** between adults.

### Suresh Kumar Koushal vs Naz Foundation (2013)

- SC overturned the **previous judgment by Delhi High Court (2009)** that decriminalized homosexual acts and criminalized homosexuality once again.
- SC argued that in 150 years, less than 200 persons had been prosecuted under Section 377.
- Therefore, **"plight of sexual minorities"** could not be used as an argument for deciding the constitutionality of the law.
- Further, SC ruled that it was for the **legislature to investigate desirability of deleting section 377 of IPC**.

### Navtej Singh Johar vs Union Of India (2018)

- Supreme Court of India in **2018 dismissed the position** taken by SC in **Suresh Kumar Koushal case (2013)** that the **LGBTQ community** constitutes a minuscule minority and so there was no need to **decriminalize homosexual sex**.
- It means **decriminalized all consensual sex** among adults, including homosexual sex.

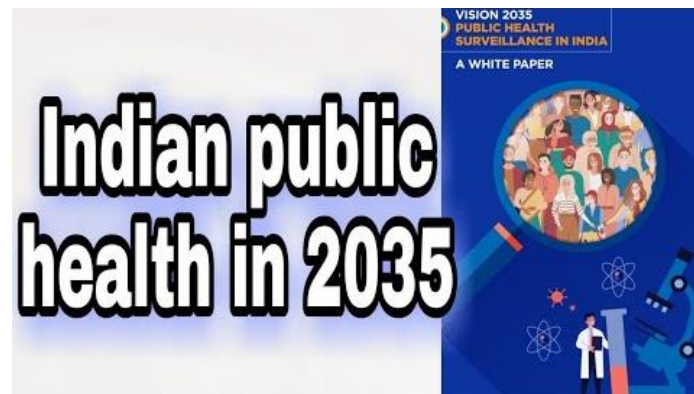
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### Source- Business Standard

## Vision 2035: Public Health Surveillance in India

### Why in the news?

- NITI Aayog has recently released a **white paper, Vision 2035: Public Health Surveillance in India**.



### Background

- The Covid-19 pandemic has provided us with an **opportunity to revisit (re) emerging diseases** due to **increased interaction between human-animal-environment**.
- The **early identification of this interference is essential to break the chain of transmissions** and create a resilient surveillance system.
- This **vision document** is a step in that direction; it **articulates the vision and highlights the building blocks**.

### About Vision 2035: Public Health Surveillance in India

- The paper is a **joint effort of Health Vertical, NITI Aayog, and Institute for Global Public Health, University of Manitoba, Canada** with contributions from technical experts representing the **Government of India, States, and International agencies**.
- This vision is to be **achieved by 2035** through the **integration of a three-tiered public health system** into **Ayushman Bharat**.
- The **building blocks for this vision** are an **interdependent federated system of governance** between the **Centre and states**. This new **data-sharing mechanism** involves the **use of new analytics, health informatics, and data science**, including innovative ways of disseminating **'information for action'**.

### Objectives of Vision 2035: Public Health Surveillance in India

- To make **India's public health surveillance system** more **responsive and predictive to enhance preparedness** for action at all levels.
- The **citizen-friendly public health surveillance system** will ensure **individual privacy and confidentiality**, enabled with a **client feedback mechanism**.
- **Improved data-sharing tool** between **Centre and states** for better **disease detection, prevention, and control**.
- **India** aims to **provide regional and global leadership** in managing events that **constitute a public health emergency** of international concern.

### Significance

- This **vision document on India's Public Health Surveillance by 2035** builds on opportunities that include the **Ayushman Bharat scheme**.
- It builds on initiatives such as the **Integrated Health Information Platform** of the **Integrated Disease Surveillance Program**.

- It aligns with the citizen-centricity highlighted in the **National Health Policy 2017** and the **National Digital Health Blueprint**.
- It encourages the use of mobile and digital platforms and point of care devices and diagnostics for amalgamation of data capture and analyses.
- It highlights the importance of capitalizing on initiatives such as the **Clinical Establishments Act** to enhance private sector involvement in surveillance.
- It points out the importance of a cohesive and coordinated effort of apex institutions, including the National Centre for Disease Control, the Indian Council of Medical Research, and others.

### Addressing gap areas in India's Public Health Surveillance

- India can create a **skilled and robust health workforce** dedicated to **surveillance activities**.
- **Non-communicable disease**, reproductive and child health, **occupational and environmental health** and injury could be **integrated into public health surveillance**.
- Morbidity data from **health information systems** could be merged with **mortality data** from **vital statistics registration**.
- An **amalgamation of plant, animal, and environmental surveillance** in a **One-Health approach** that also **includes surveillance for anti-microbial resistance** and **predictive capability for pandemics** is an **element suggested** within this **vision document**.
- **Public Health Surveillance** could be integrated within **India's three-tiered health system**.
- **Laboratory capacity** could be **strengthened with new diagnostic technologies**, including **molecular diagnostics, genotyping, and phenotyping**.
- To **establish linkages across the three-tiered health system**, referral networks could be **expanded for diagnoses and care**.

For more information refer: [https://niti.gov.in/sites/default/files/2020-2/PHS\\_13\\_dec\\_web.pdf](https://niti.gov.in/sites/default/files/2020-2/PHS_13_dec_web.pdf)

**Topic- GS Paper II–Governance**

**Source-The Hindu**

### 'MahaSharad' platform

**Why in the news?**

- **Maharashtra's Department of Social Justice** is all set to launch the **'MahaSharad Digital Platform'**.



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### About MahaSharad Digital Platform

- **Maharashtra System for Health and Rehabilitation Assistance" or MahaSharad platform** has been created to **provide various devices to persons with disabilities free of cost** through the **Commissionerate for persons with Disability**.
- The **MahaSharad platform** will help such **donors meet needy divyang**.
- It will **act as a bridge** between **physically challenged persons** in need of **equipment with private companies**, vendors and people **engaging in donating such equipment**.

Topic- GS Paper II–Governance

Source-AIR

### Doctrine of separation of power

#### Why in the news?

- Recently, the **decision by both Houses of the Maharashtra State Legislature** to not respond to **any notice sent by the High Court or the Supreme Court** in the **Breach of Privilege motion** against Republic TV editor and anchor Arnab Goswami has added a new twist to the debate over the separation of powers between **the judiciary and Legislature**.

#### What is the doctrine of separation of power?

- The doctrine of separation of power is a part of the **basic structure of the Indian Constitution**.
- It implies that the **three pillars of democracy**, namely the **executive, judiciary, and legislature**, perform **separate functions** and **act as separate entities**.
- One of the **features of the doctrine** is that **one arm of the state should not interfere** in the **functioning of the other organs** or **exercise a function of another organ**.

#### What legal provisions have the state assembly they invoked while passing the proposal?

- The proposal cites **two articles of the Constitution** as the **basis of its argument**.

#### They are articles are:

- **Article 194** of the Constitution, which lays down the powers and privileges of the Houses of Legislatures.
- **Article 194** states that there shall be freedom of speech in the Legislature of every State and no member of the Legislature of a State shall be liable to any proceedings in any court in respect of anything said or any vote given by him in the Legislature or any committee thereof, and no person shall be so liable in respect of the publication by or under the authority of a House of such a Legislature of any report, paper, votes, or proceedings.
- **Article 212** states that the validity of any proceedings in the Legislature of a State shall not be called in question on the ground of any alleged irregularity of procedure and no officer or member of the Legislature of a State in whom powers are vested by or under this Constitution for regulating procedure or the conduct of business, or for maintaining order, in the Legislature shall be

subject to the jurisdiction of any court in respect of the exercise by him of those powers.

### **Other Constitutional provisions ensuring Separation of Power:**

- **Article 50:** The state shall take steps to separate the judiciary from the executive.
- **Article 121 and 211:** Judicial conduct of a judge of the Supreme Court and the High Court's cannot be discussed in the Parliament and the State Legislature.
- **Article 361:** The President or the Governor shall not be answerable to any court for the exercise and performance of the powers and duties of his office.

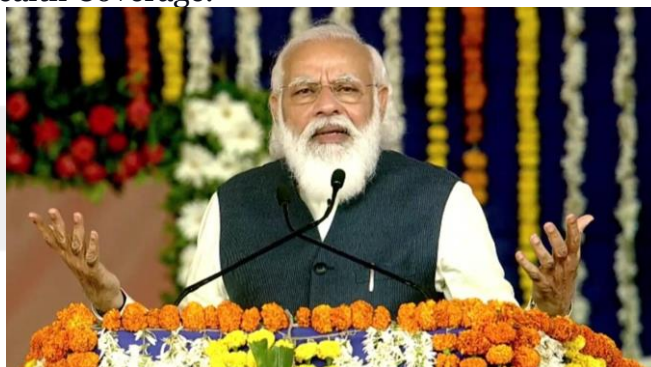
### **Topic- GS Paper II– Governance**

**Source- Indian Express**

### **Social Endeavour for Health and Telemedicine (SEHAT) scheme**

#### **Why in the news**

- Prime Minister will roll out the Social Endeavour for Health and Telemedicine (SEHAT) scheme in Jammu and Kashmir on December 26.
- It will make Jammu and Kashmir among the first in the country to achieve Universal Health Coverage.



#### **About Social Endeavour for Health and Telemedicine (SEHAT) scheme**

- This Scheme has been launched in line with Digital India vision.
- This initiative will boost the telemedicine mission in India, which focuses on the use of telecommunication and information technologies to provide clinical health care at a distance.

#### **Main Highlights and benefits of the Scheme**

- It is an initiative in furtherance to Government's commitment to empowering rural citizens in having access to information, knowledge, skills, and other services in various sectors through the intervention of digital technologies.
- This Social Endeavour for Health and Telemedicine (SEHAT) venture with the Apollo Hospitals is expected to connect 60,000 Common Service Centres (CSCs) across the country to a common network and provide healthcare access to millions of citizens irrespective of geographical location or connectivity.
- The Government of India has launched it in collaboration with Apollo hospitals.
- The beneficiaries are entitled to free health insurance cover of Rs. 5 lakh per family per year and there is no restriction on family size, age or gender.



## Topic- GS Paper II–Governance Source-PIB

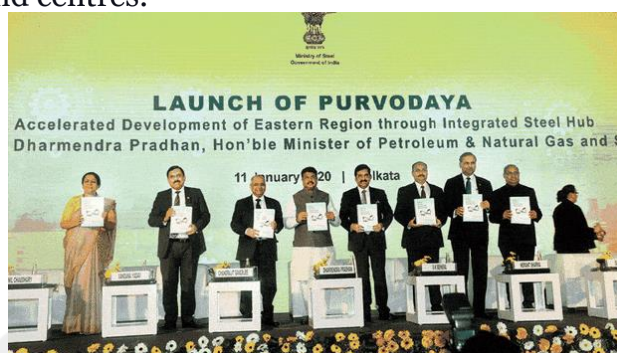
### Mission Purvodaya

#### Why in the news?

- Recently, the Union Minister of Steel has emphasized the role of SAIL steel plants in Mission Purvodaya to drive the development of eastern India.

#### About Mission Purvodaya

- The Mission, which aims at accelerated development of eastern India through an integrated steel hub, was launched by Pradhan in January 2020.
- This Mission will help to enhance capacity through easing the setup of Greenfield steel plants, develop steel clusters near integrated steel plants as well as demand centres.



#### Focused State

- The focus will be on eastern states of India (Odisha, Jharkhand, Chhattisgarh and West Bengal) and the northern part of Andhra Pradesh which collectively holds 80% of the country's iron ore, 100% of coking coal and a significant portion of chromite, bauxite and dolomite reserves.
- Japan is the partner country who will guide India in making Indian steel ecosystem bigger both in qualitative and quantitative terms.

#### Significance of Mission Purvodaya

- The Mission will drive India's march towards five trillion dollar economy set by the government.
- The Mission helps to transform logistics and utility infrastructure, which would change the socio-economic landscape in eastern India.

## Topic- GS Paper II–Governance Source-TOI

### North Eastern Region Power System Improvement Project (NERPSIP) Scheme

#### Why in the news?

- The Cabinet Committee on Economic Affairs has recently approved a revised cost estimate of North Eastern Region Power System Improvement Project for six States for strengthening of the Intra-State Transmission and Distribution Systems.

## About the North Eastern Region Power System Improvement Project (NERPSIP)

- The Scheme was initially approved in **December 2014 as a Central Sector Plan Scheme of Ministry of Power.**

### Funding

- It is being funded with the assistance of World Bank fund and by the Government of India through the Budget support of Ministry of Power on 50:50 basis (World Bank: GoI) except for the capacity building component, which will be entirely funded by the Government of India (GoI).

### Objective

- The main objective of the project is Government commitment for the **total economic development of North Eastern Region and to strengthen the Intra-State Transmission & Distribution Infrastructure in the North East Region.**

### Implementing

- The Scheme is being implemented through POWERGRID, a Public Sector Undertaking (PSU) under the Ministry of Power.

### Beneficiary state

- Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura and is targeted to be commissioned by December 2021.

### Topic- GS Paper II– Governance

### Source- PIB

## Meghalaya and the Sixth Schedule areas

### Why in the news?

- Recently, the members of the Khasi Students' Union (KSU) have declared all Bengalis in Meghalaya as Bangladeshis.
- The entire state of Meghalaya except for a tiny area within the capital Shillong is covered by the Sixth Schedule to the Constitution of India.



### About Sixth Schedule

- The Sixth Schedule was incorporated to protect the rights of the minority tribals living within a larger state dominated by the majority.

### Constitutional Provisions of Sixth Schedule Areas

- It is mentioned under Article 244 of the Constitution of India.

- The Sixth Schedule applies to the Tribal Areas of Assam, Meghalaya, Tripura and Mizoram.
- The Constituent Assembly passed it in 1949; it seeks to safeguard the rights of the tribal population through the formation of Autonomous District Councils (ADC).

### Role of Governor

- The governors of states under Sixth Schedule Area are empowered to reorganise boundaries of the tribal areas.
- The governor can choose to include or exclude any site, increase or decrease the boundaries and unite two or more autonomous districts into one.

### Implications of Sixth Schedule

- It provides for autonomy in the administration of these areas through Autonomous District Councils (ADCs) and the Regional Councils empowered to make laws in respect of areas under their jurisdiction.
- In all, ten areas in the Northeast are registered as autonomous districts, i.e. three in Assam, Meghalaya and Mizoram and one in Tripura.
- It covers land, forest, cultivation, inheritance, indigenous customs and traditions of tribals, etc. and also to collect land revenues and certain other taxes.
- The ADCs are like miniature states having specific powers and responsibilities in respect of all the three arms of governance, i.e. legislature, executive and judiciary.

### Topic- GS Paper II– Governance

#### Source-Indian Express

### Year-End Review: Department of Animal Husbandry & Dairying

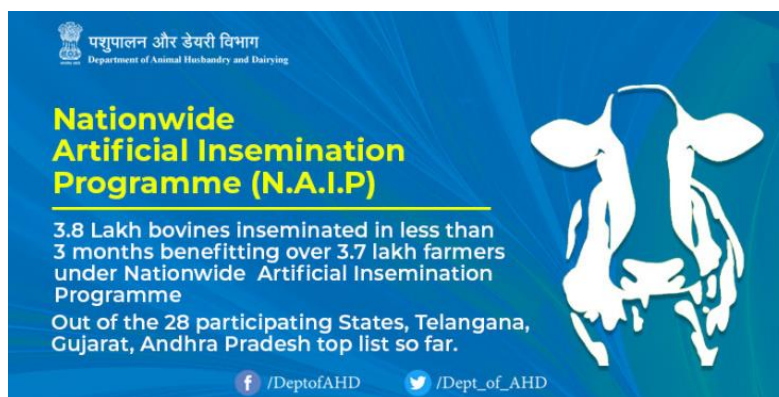
#### Why in the news?

- The **Ministry of Fisheries, Animal Husbandry & Dairying** has recently released the **Year-End Review 2020 of the Department of Animal Husbandry & Dairying**.

#### Major Highlights

#### Animal Husbandry Infrastructure Development Fund (AHIDF)

- The **Prime Minister** has announced for **setting up of Rs. 15000 crore Animal Husbandry Infrastructure Development Fund** under **AtmaNirbhar Bharat Abhiyan stimulus package**.



पशुपालन और डेयरी विभाग  
Department of Animal Husbandry and Dairying

**Nationwide Artificial Insemination Programme (N.A.I.P)**

3.8 Lakh bovines inseminated in less than 3 months benefitting over 3.7 lakh farmers under Nationwide Artificial Insemination Programme

Out of the 28 participating States, Telangana, Gujarat, Andhra Pradesh top list so far.

[/DeptofAHD](#) [/Dept\\_of\\_AHD](#)

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- It has been **approved for incentivizing investments** by **individual entrepreneurs, private companies, MSME, Farmers Producers Organization (FPOs) and Section 8 companies** to establish:
  - the dairy processing and value addition infrastructure
  - meat processing and value addition infrastructure
  - Animal Feed Plant
  - the interest subvention is provided @ 3% to all eligible entities

#### **Nationwide Artificial Insemination Programme (NAIP)**

- The **Government launched the Nationwide Artificial Insemination Programme** for **20,000 bovines** per district for **600 districts** in **September 2019**.
- It is **one of the most extensive** such programmes with **100% central assistance for undertaking breed improvement**.
- Under “**Nationwide Artificial Insemination Programme**” Phase I, **76 lakh bovines** have been covered, **90 lakh Artificial Insemination** performed, and **more than 32 lakh farmers** have been benefitted.
- The **NAIP Phase-II** has been initiated from **1st August 2020** in **604 districts** (50,000 animals per district).

#### **Interest subvention on working capital loans for the dairy sector**

- The **Department of Animal Husbandry and Dairying** has introduced a new component “**interest subvention on Working capital loans for the Dairy sector**”.
- It is one of the **components under its scheme “Supporting Dairy Cooperatives and Farmer Producer organizations engaged in dairy activities” (SDC&FPO)**.
- The **modified scheme envisages a budgetary provision of Rs 100 Crore earmarked** for the component “**Interest Subvention on Working Capital Loans for the Dairy sector**” during **2020-21**.

#### **Kisan Credit Card (KCC) for Animal Husbandry & Dairying Farmers**

- It is a **special drive** which **has been undertaken to provide concessional credit to PM-KISAN beneficiaries**.
- The **Animal Husbandry & Dairying farmers** have been **included in this drive**.
- It will **enable such farmers to gain access to institutional credit at the concessional interest rate. 2.5 Crore farmers** will be covered and **will benefit from a credit flow of about Rs 2 lakh crores**.

#### **Topic- GS Paper II–Governance**

**Source- PIB**

#### **Merger of four government-run film and media units**

##### **Why in the news?**

- **Union Cabinet** has recently **approved the merger of four government-run film and media units**.
- **These units are the Films Division, the Directorate of Film Festivals, the National Film Archives of India, and the autonomous body Children’s Film Society with the National Film Development Corporation (NFDC)**.



### Significance of Merger

- The **merger of Film Media Units** under one corporation will lead to **convergence of activities and resources and better coordination**, thereby **ensuring synergy and efficiency in achieving the mandate of each media unit**.
- It will also **lead to a reduction in duplication of activities and direct savings to the exchequer**.

### Related Information

#### National Film Archives of India

- It was **established in 1964** with the **primary objective of acquiring and preserving Indian cinematic heritage**.

#### Films Division

- It was **established in 1948**.
- It is the **oldest of the four units created primarily to produce documentaries and news magazines** as publicity for government programmes and to **keep a cinematic record of Indian history**.

#### Directorate of Film Festivals

- It was set up in **1973 to promote Indian films and cultural exchange**.

#### Children's Film Society

- It is an **autonomous body founded in 1955 with the specific objective of providing children and young people value-based entertainment through the medium of films**.

#### National Film Development Corporation of India (NFDC)

- It was established in **1975 to encourage high-quality Indian cinema**.
- It functions under the **Ministry of Information and Broadcasting, Government of India**.
- The **primary goal of the NFDC is to plan, promote and organise an integrated and efficient development of the Indian Film Industry and foster excellence in cinema**.

### Topic- GS Paper II–Governance

#### Source-Indian Express

### [E-Sampada mobile app](#)

#### Why in the news?

- The **Ministry of Urban Affairs** has launched a **new Web Portal and Mobile App, e-Sampada**.

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### About E-Sampada mobile app

- It will provide a **single window for all these services** including an **allotment for over one lakh government residential accommodations, office space allotment to government organisations in 28 cities** and venues like **5, Ashoka Road for social functions**.
- The portal **provides online facility** to users **across India to lodge complaints, submit documents and appear for the virtual hearing**.
- It will **reduce administrative cost** and will **save time and resources** by reducing **visits to Directorate of Estate**.
- **E-Sampada Mobile App and Chatbot facility** have been **provided for better user experience**.

Topic- GS Paper II–Governance

Source- PIB

### Kisan Fasal Rahat Yojana

#### Why in the news?

- The **Jharkhand government** is set to replace the **Prime Minister's insurance scheme for farmers** with **Kisan Fasal Rahat Yojana**.



### About Kisan Fasal Rahat Yojana

- It is a **compensation scheme** to provide **security cover to Jharkhand farmers** in case of **crop damage due to natural calamity**.
- It is not an **insurance scheme** where **premiums are paid**.
- The **damage due to wild animal attack** and **preventable risks** such as **unscientific farming by farmers** will not be **considered under the scheme**.

### Coverage

- It will cover both **landowning and landless farmers**.

### Implementing agency

- The **Department of Agriculture, Animal Husbandry and Co-operative** will be the **implementing agency of the scheme**.

### Assessment of Crop Damage

- The **crop damage** will be assessed through a **'ground-truthing' process**, a **combination of sample observations**.
- In the **case of post-harvest damage**, the **assessment will be done** based on the sighting.
- The **gram sabha's role** is important in the **initial reporting of crop damage** received from the farmers.
- **Floods, hurricanes, tornadoes, volcanic eruptions, earthquakes, tsunamis, hurricanes**, and other **geological processes** fall under the **category of natural calamities** covered under the scheme.

### Topic- GS Paper II–Governance

Source- Indian Express

### Powers of Governor in calling an Assembly Session

#### Why in the news?

- Recently, in a **tug-of-war between Governor and Chief Minister of Kerala**, the **Governor has turned down a request to summon** a special **sitting of the Assembly** to debate the **new three central farm laws**.

#### Constitutional Provisions for summoning a session of an Assembly

- **Article 174** says that the **Governor shall from time to time summon the House or each House of the Legislature of the State** to meet at such time and **place as he thinks fit**.
- The **provision under Article 174** also puts on the **Governor to ensure** that the **House is summoned** at least once **every six months**.
- **Article 163** provides that it is the **Governor's prerogative to summon the House**.
- The **summoning of the House** by the **Governor under Article 174** implies that the **House's summoning is not of Governor's own will** but on the aid and **advice of the Cabinet**.
- The power vested with the **Governor under Article 174 to summon, prorogue, and dissolve the House (s)** must be exercised following the chief minister's aid and **advice and his council of ministers**.

#### Power of Governor to act against the will of Chief Minister

- It has been **observed in few instances** where the **Governor can summon the House** despite the **Chief Minister's refusal who heads the Cabinet**.
- When the **Chief Minister** appears to have **lost the majority** and the houses legislative members propose a **no-confidence motion** against the **Chief Minister**, the **Governor can decide on his or her own** to summon the House.
- The **Governor's actions** executed with the use of his **discretionary powers** can be challenged in the court.

## Related Information

### Sarkaria Commission (1983) on Governor's Role

- **Sarkaria Commission** was set up in **1983** by the **central government of India**.
- The Sarkaria Commission's charter was to **examine the central-state relationship on various portfolios** and **suggest changes** within the **Constitution of India's framework**.
- According to commission recommendation, so **long as the Council of Ministers** enjoys the **Assembly's confidence**, its **advice in these matters**, unless **patently unconstitutional**, must be **deemed as binding on the Governor**.
- It is only where such **recommendation if acted upon**, would lead to an **infringement of a constitutional provision**, or where the Council of Ministers has ceased to **enjoy the confidence of the Assembly**, that the question arises whether the **Governor may act** in the **exercise of his discretion**.

### Supreme Court View

- The number of rulings by the **Supreme Court** has settled the **position that the Governor** cannot **refuse the request of a Cabinet** that **enjoys a majority in the House** unless it is **patently unconstitutional**.
- The **landmark 2016 Constitution Bench** ruling in which the **Supreme Court** looked into the **constitutional crisis** in **Arunachal Pradesh** after the **government-imposed President's Rule**.
- The court read the power to **summon the House** as a **"function"** of the **Governor** and not a **"power"** he enjoys.

Topic- GS Paper II–Governance

Source- Indian Express

## Water Quality Testing Innovation Challenge

### Why in the news?

- The **National Jal Jeevan Mission** has launched an **innovation challenge** in partnership with the **Department of Promotion of Industry and Internal Trade** to **develop portable water testing devices**.



### About the Water Quality Testing Innovation Challenge

- Water quality testing is **one of the priority areas** under **Jal Jeevan Mission**, the **flagship programme** of **Union Government**.

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- The **innovation challenge** aims 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**.

#### **About Jal Jeevan Mission**

- Jal Jeevan Mission has been **formed after the restructured and subsumed the ongoing National Rural Drinking Water Programme (NRDWP)** which will provide **Functional Household Tap Connection (FHTC) to every rural household, i.e., Har Ghar Nal Se Jal (HGNSJ) by 2024**.

#### **Objective**

- It will **provide piped water supply (Har Ghar Jal) to all rural and urban households by 2024**.
- It **envisages 55 litres of water per person per day** to every rural household through **Functional Household Tap Connections (FHTC) by 2024**.
- **"Jal Jeevan Mission"** was being **allocated Rs 3.6 lakh crore** in the **budget 2020**.

#### **Focused area**

- The Mission **focuses on integrated demand and supply-side management** of water at the local level.
- The **creation of local infrastructure** for **source sustainability** measures as mandatory elements, like **rainwater harvesting, groundwater recharge, and household wastewater management for reuse**, would be undertaken in convergence with **other government programmes/schemes**.
- The **Jal-Jeevan Mission** is based on **various water conservation efforts** like **point recharge, desilting of minor irrigation tanks, and greywater for agriculture and source sustainability**.
- The **Mission** is based on a **community approach to water** and includes extensive **Information, Education and Communication** as a **key component of the Mission**.
- The **73rd Amendment to India's Constitution** has placed the **subject of drinking water** in the **11th Schedule**.

#### **Funding Pattern:**

- The fund sharing pattern between the
  - Centre and states are **90:10**
  - for Himalayan and North-Eastern States, **50:50**
  - for other states, and **100% for Union Territories**
- The Jal Jeevan Mission will **converge with other Central and State Government Schemes** to **achieve sustainable water supply management** across the country.

#### **Institutional Arrangement:**

- National Jal Jeevan Mission (NJJM) at the Central level
- State Water and Sanitation Mission (SWSM) at the State level
- District Water and Sanitation Mission (DWSM) at the District level
- Village Water Sanitation Committee (VWSC) at Village level

### Village Action Plan (VAP):

- Every village will prepare a Village Action Plan (VAP) which will have three components:
  - Water source & its maintenance
  - Water supply
  - Greywater (domestic wastewater) Management.

### Need for and significance of the Mission:

- India has occupied 16% of the world population, but only 4% of freshwater resources.
- The significant challenges to providing potable drinking water are depleting groundwater level, overexploitation and deteriorating water quality, climate change, etc. are
- It is an urgent requirement of water conservation in the country because of its decreasing groundwater level.
- Jal Jeevan Mission will focus on integrated demand and supply management of water at the local level.

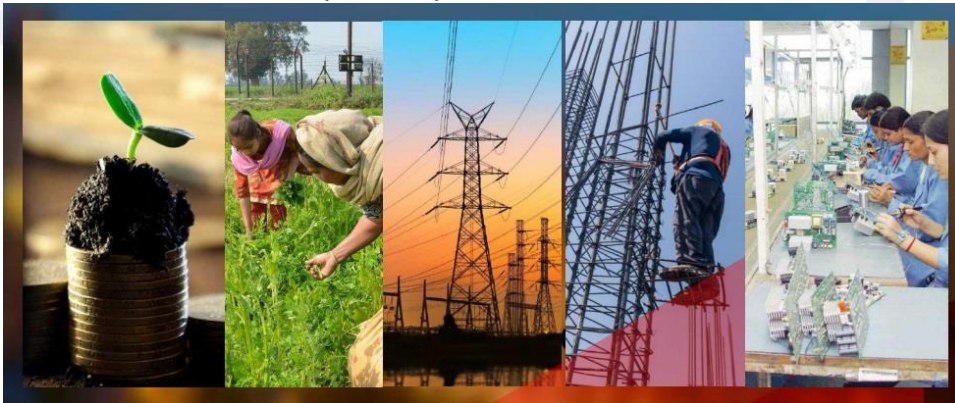
### Topic- GS Paper II–Governance

Source- PIB

### Action Agenda for an AtmaNirbhar Bharat (AAAN) released

#### Why in the news?

- Dr Harsh Vardhan, the Minister of Science & Technology, Earth Sciences and Health & Family Welfare released the report Action Agenda for an AtmaNirbhar Bharat (AAAN) in New Delhi.
- The report was prepared by Technology Information, Forecasting and Assessment Council (TIFAC).



#### Major Highlights

- The comprehensive report AAAN is a consequential follow-up of the TIFAC's White Paper on Focused Interventions for 'Make in India': post COVID -19 which was released earlier in July 2020.
- The White Paper highlighted five thrust sectors namely, Healthcare, Machinery, ICT, Agriculture, Manufacturing, and Electronics that would be critical for India's economic growth post-COVID.
- The growth thrust is estimated using technology stimulus and captured sector-specific strengths, market trends and opportunities.

### Objective of the report

- The **ultimate outcome of the report** has to be **addition to quality of life** and how our **efforts can contribute to Atmanirbhar Bharat**.
- A roadmap would be **drawn for implementing the key suggestions** in the **AAAN report by 15<sup>th</sup> August 2022** when **India turns 75 years old**.
- The aim of the **Action Report** is to create a **sense of Scientific Social Responsibility** and to **lay down imperatives for future of technology in India**. It looks at the **challenges, possibilities** and how to find solutions.

### Background of the report

- **TIFAC's** (Technology Information, Forecasting and Assessment Council) **White Paper on Focused Interventions for 'Make in India': post COVID -19** which was released in July 2020.
- The paper highlighted five thrust sectors namely, **Healthcare, Machinery, ICT, Agriculture, Manufacturing, and Electronics** that would be critical for India's economic growth using technology stimulus.
- These areas also captured sector-specific strengths, market trends and opportunities.
- Post-release of the **White Paper**, **TIFAC followed a consultative approach** and organised a series of **brainstorming workshops involving key players of each sector covering Industry, Academia, R&D Institutes and Policy makers**.

### About the AAAN

- The **detailed deliberations and specific recommendations** have been presented in this comprehensive report titled "**AAAN**" as an **Action Agenda for an AtmaNirbhar Bharat**.
- This **comprehensive action plan (AAAN)** has been structured with reference to **timeline, highlighting short/medium- and long-term interventions** in various identified sectors.
- The document also **specifically defines overarching policy recommendations** with reference to technological inputs, **focusing towards Local to Global thereby reviving Indian economy**.
- It identified domains of **Innovation and Technology development, Technology Adoption/Diffusion, Boosting up Manufacturing and Productivity, Trade and Globalization, Internet Policy and Data Management & Education and Training, Artificial Intelligence**, among others.

**Topic: General Studies Paper II (Governance)**

**Source: PIB + AIR**

### Digital India Awards 2020

#### Why in the news?

- **President of India Shri Ram Nath Kovind** conferred the **Digital India Awards 2020** on **30<sup>th</sup> December 2020** through video conferencing.

- In line with **Digital India's vision**, this is the **first time that the entire process of the Digital India Awards** is being conducted online from **nominations to screening to the final awards ceremony**.



### Major Highlights

- The **biennial Digital India Awards (DIA)** has been conducted by the **National Informatics Centre (NIC)** under **Ministry of Electronics & Information Technology (MeitY)**.
- The **award ceremony** is to **promote innovation in eGovernance and digital transformation** of government **service delivery mechanism**.

### About the Digital India Award

- Digital India Awards have been **institutionalized under the ambit of National Portal of India** to **honor exemplary initiatives/practices in Digital-Governance**.
- The **National Portal of India** (<https://india.gov.in>) is a **Flagship Project** to **facilitate single window access to Government Information and Services** in cyberspace.
- The awards have been **held for 5 seasons earlier**, in 2009, 2012, 2014, 2016 & 2018.
- The Awards were **initially known as Web Ratna Awards** until 2014 and were **re-named Digital India Awards** from the 2016 season.
- The Digital India Awards 2020 is the **sixth award ceremony** and has been announced for the **following six categories**:
  - a. Innovation in pandemic

It will be conferred to recognise **outstanding, innovative digital solution to facilitate the citizens to undertake various activities** with ease during the time of pandemic in areas like **communication, health, education, travel** etc. or to ensure continuity of government services. It will be conferred to a **Government Entity**.
  - b. Excellence in Digital Governance

To felicitate a **Ministry or Department of the Government of India** which has a comprehensive digital presence and displays a high level **inter and intra-Department Integration** in its

digital initiatives. Integration with electronic authentication and digital payments are also assessed.

c. Excellence in Digital Governance

The Award acknowledges the **State/UT of India** that displays exemplary initiative in establishing comprehensive digital presence in sectors like health, labour, finance, social justice and environment leading to the accomplishment of sustainable development goals.

d. Excellence in Digital Governance

To reward the **accomplishments of the District administration** which has displayed exemplary focus on providing comprehensive information to the citizens in the regional language. Entries must display the spectrum of coverage highlighting the important facets of the district in terms of tourism, art, culture, handicraft, and access to utilities.

e. Open Data Champion

Open Data Championship Award is to acknowledge the **Ministries/ Departments/ Organizations/ States** for proactive, timely and regular release of datasets/resources through Web Services/APIs on the Open Government Data (OGD) Platform (<https://data.gov.in>) in compliance with the National Data Sharing and Accessibility Policy (NDSAP).

f. Exemplary Product

The award honours those products that have made their mark in the field of **Digital Governance**. The product must have shown a high degree of replicability, scalability and must be successfully implemented by government departments / entities. Aspect of Digital security is a primary criterion of evaluation.

**Note:** In addition to above six categories, **Jury Choice Award** will be conferred to honour **excellence in design and implementation of National Public Digital Platform**.

**Topic: Miscellaneous**

**Source: PIB/AIR**

### **Dr. Harsh Vardhan nominated as a member on the GAVI Board**

#### **Why in the news?**

- Dr. Harsh Vardhan, Union Minister of Health and Family Welfare has been nominated by the **Global Alliance for Vaccines and Immunisation (GAVI)** as a member on the GAVI Board recently.

#### **Major Highlights**

- Dr. Harsh Vardhan will be representing the **South East Area Regional Office (SEARO)/ Western Pacific Regional Office (WPRO)** constituency on the GAVI Board.
- The seat is currently held by **Mr. MyintHtwe of Myanmar**.
- Dr. Harsh Vardhan will be representing India from **1<sup>st</sup> January 2021 until 31<sup>st</sup> December 2023**.



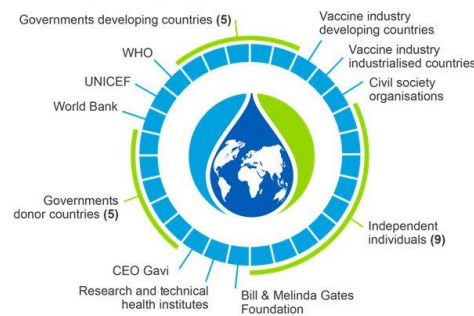
- **Chairman of GAVI Alliance Board:** Dr. Ngozi Okonjo-Iweala presently serves as Chair of the GAVI Alliance Board.

### About the GAVI Board

- The Board normally meets twice a year in June and November/December and holds an annual retreat, normally in March or April. All these meetings are normally attended in person.

#### GAVI'S PARTNERSHIP MODEL

Building on the comparative advantages of both public and private partners



- The GAVI Board is responsible for strategic direction and policymaking, oversees the operations of the Vaccine Alliance and monitors programme implementation.
- With membership drawn from a range of partner organisations, as well as experts from the private sector, the Board provides a forum for balanced strategic decision making, innovation and partner collaboration.
- GAVI, the Vaccine Alliance as part of its mission to save lives, reduce poverty and protect the world against the threat of epidemics.
- It has helped vaccinate more than 822 million children in the world's poorest countries, preventing more than 14 million future deaths.

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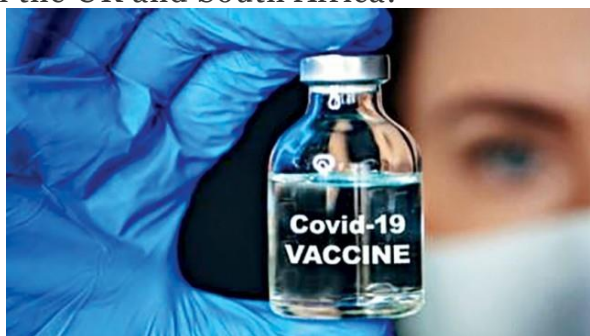
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**Topic: General Studies paper III (Health Issues) + Miscellaneous**  
**Source: PIB**

### Vaccines will work against new variants of corona virus: Govt

**Why in the news?**

- The **Government of India** has assured that **vaccines will work against the new variants of coronavirus** and there is no evidence that current vaccines will fail to protect against the new variants reported from the UK and South Africa.



### **Major Highlights**

- **Principal Scientific Advisor K. Vijay Raghavan** informed that the changes in the **variants of corona virus** are not sufficient to make the vaccines ineffective.
- **He also informed that most vaccines target the spike protein and stimulate our immune system** to produce a wide range of **protective antibodies**.
- There are **17 important changes** have been seen in the **new variants** and it **increases the spread of transmission**.

## **Tracking the new strain**



<b>6</b> CONFIRMED CASES <b>3</b> KARNATAKA <b>1</b> ANDHRA <b>1</b> TELANGANA <b>1</b> UTTAR PRADESH	<b>GOVERNMENT ASSESSMENT</b> <ul style="list-style-type: none"><li>• New strain does not lead to more severe disease or fatalities</li><li>• But it spreads faster, and hence can lead to more infections and thus more hospitalised people in general</li><li>• Changes seen in the new variant not enough to make current Covid-19 vaccines ineffective</li></ul>	<b>STEPS BEING TAKEN</b> <ul style="list-style-type: none"><li>• Roughly 33,000 people who came to India between Nov 25-Dec 23 being tracked</li><li>• Insacog, consortium of 10 labs, to carry out routine genetic sequencing to track mutations</li><li>• Testing, tracing and containment efforts to continue at same levels despite fall in cases</li></ul>
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**"Since it (new strain) increases transmission, it will increase the number of people infected and therefore number of severe cases. That's why we should take extraordinary precautions"**

—K VIJAYRAGHAVAN, Principal scientific adviser to the PM

- The UK variant is **more transmissible**, and it increases the **positivity rate**. The new variants **do not increase the severity** of the disease.

- The **Indian SARS-CoV-2 Genomics Consortium** is conducting **testing and sequencing of samples of international travellers**, patients admitted in the hospital and across the country.
- With **strict compliance measures** like wearing masks and maintaining social distancing will certainly help ward off this disease.

**Topic: General Studies Paper II (Health Issues)**

**Source: AIR**

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## International Matters

### SCO Young Scientist Conclave

#### Why in the news?

- Recently, the **Shanghai Cooperation Organisation (SCO) Young Scientist Conclave** was concluded by the **Union Minister of for Science and Technology, Earth Sciences and Health & Family Welfare**.

#### About SCO Young Scientist Conclave

- It was the first **SCO-Young Scientists Conclave** is being held in India in 2020, as an **integral part of SCO Young Scientists Forum (SCO YSF)**.
- The **SCO YSF** to provide a **unique opportunity to the youth in their Member States to interact**, network and collaborate with their counterparts to **address pertinent challenges in emerging areas of science and technology**.



- It **aims at harnessing the intrinsic ability of unconventional and lateral thinking, ideology and innovative calibre** of the young minds and make their **scientific and technological presence** felt in today's world.

The areas included are

- agriculture and food processing
- sustainable energy and energy storage
- biotechnology and bioengineering
- combating COVID-19 and emerging pandemics through research and innovation
- environmental protection and natural resource management,

#### Related Information

##### About Shanghai Cooperation Organization

- It is a **Eurasian political, economic, and military organisation** which was founded by the leaders of **China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan**.

##### Current member

- The SCO comprises **eight member states**, namely the **Republic of India, the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian**

**Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.**

#### **Observer State**

- The SCO counts **four observer states**, namely the **Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran, and the Republic of Mongolia.**

#### **Dialogue Partner**

- The **SCO has six dialogue partners**, namely the **Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.**
- The **official working languages** of the **Shanghai Cooperation Organisation are Chinese and Russian.**
- The **SCO Secretariat**, based in **Beijing**, is the main permanent executive body of the SCO.

#### **India & SCO**

- India hosted **SCO's meeting on Urban Disaster Handling.**
- It involves the **joint mock exercise on urban earthquake search and rescue** by the **National Disaster Response Force (NDRF).**
- The **5th meeting of Shanghai Cooperation Organisation (SCO)'s Heads of Ministries and Department of Science and Technology** was held in **Russia.**
- In this meeting, **members have agreed to India's proposal** for hosting the **Heads of Ministries (Prime Ministers) meeting in 2020.**
- India will also host the **SCO Forum of Young Scientists and Innovators in 2020.**

#### **About Regional Anti-Terrorist Structure**

- The **Regional Anti-Terrorist Structure (RATS)** headquartered in **Tashkent, Uzbekistan**, is a **permanent organ of the SCO** which serves to **promote cooperation of member states against terrorism, separatism, and extremism.**
- The **Council of Heads of State** appoints the **SCO Secretary-General** and the **Director of the Executive Committee** of the **SCO RATS** for a term of three years.

#### **Topic- GS Paper II–International Organization**

#### **Source-PIB**

#### **Pakistan, China violate religious freedom: U.S.**

#### **Why in the news?**

- The **U.S. has recently designated Pakistan and China among eight other countries** that **area of particular concern for violation of religious freedom.**
- **Pakistan and China** along with **Myanmar, Eritrea, Iran, Nigeria, North Korea, Saudi Arabia, Tajikistan, and Turkmenistan** were placed in the list for **engaging in or tolerating systematic, ongoing, egregious violations of religious freedom.**

## Related Information

### About USCIRF Annual Report-2020

- Recently, the **U.S. Commission on International Religious Freedom (USCIRF)** has **downgraded India** to the **lowest ranking of “Countries of Particular Concern” (CPC)** in its **2020 report** on religious freedom.
- **USCIRF** has **placed India alongside China, North Korea, Saudi Arabia, and Pakistan.**
- India was categorised as a **“Tier 2 country”** in last year’s listing.
- This is the **first time since 2004** that **India** has been placed in the **Countries of Particular Concern** category.
- **Designation of the CPC** is the **top tier recommendation** by the **USCIRF** when it comes to the **violation of international religious freedom.**

### Reasons

- **India** took a **sharp downward turn in 2019**, which included specific **concerns about the Citizenship Amendment Act, the proposed National Register for Citizens, anti-conversion laws** and the situation in **Jammu and Kashmir.**
- The **Indian government** used its **parliamentary majority** to **institute national-level policies** violating the **religious freedom of minorities**, especially for Muslims.
- Earlier, the **Organisation of Islamic Cooperation (OIC)** had criticised the **Indian government** for **“growing Islamophobia”** in the country.

### About U.S. Commission on International Religious Freedom (USCIRF)

- It is an independent, **bipartisan U.S. federal government commission**, dedicated to **defending the universal right to freedom of religion or belief** abroad.
- It is **headquartered at Washington DC.**

### Functions

- It acts as an **advisory body** to the **United State Congress.**
- **USCIRF** **reviews the facts and circumstances of religious freedom violations** and **makes policy recommendations** to the **President, the Secretary of State, and Congress.**

**Topic- GS Paper II–International Relation related Issue**

**Source- The Hindu + DAWN**

## Partners in Population and Development (PPD)

### Why in the news?

- **Union Minister for Health and Family Welfare** has recently **addressed the Inter-Ministerial Conference** by **Partners in Population and Development.**

### About Partners in Population and Development (PPD)

- It is an **Intergovernmental alliance** formed during the **International Conference on Population and Development**, held at **Cairo (Egypt)** in **1994.**



## Partners in Population and Development (PPD)

An Inter-Governmental Organization  
Promoting South-South Cooperation

### Aim

- To **expand and strengthen South-South collaboration** between and among the **developing countries** in the **field of reproductive health, population, and development.**

### Members

- Currently, it has a **membership of 26 developing countries**, representing more than **59% of the world's population.**
- The **secretariat of Partners in Population and Development (PPD)** is at **Dhaka, Bangladesh.**

Topic- GS Paper II–International Organisation

Source- PIB

### Asia Pacific Vaccine Access Facility (APVAX)

#### Why in the news?

- **Asian Development Bank** has launched a **USD 9 billion vaccine initiative** the **Asia Pacific Vaccine Access Facility (APVAX)** offering **rapid and equitable support** to its developing members as they procure and deliver effective and safe coronavirus disease (COVID-19) vaccines.



#### About Asia Pacific Vaccine Access Facility (APVAX)

- It **aims to offer rapid and equitable support** to its developing members as they **procure and deliver effective and safe coronavirus disease (COVID-19) vaccines.**
- APVAX will play a **critical role in helping our developing members** meet these challenges, overcome the pandemic, and focus on economic recovery.
- If a country must **obtain finances under APVAX**, then it should fulfil the following criteria:

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- a. It must be **procured through COVAX**.
- b. The **World Health Organization** should prequalify it
- c. A **stringent regulatory authority** should authorise it

### **Related Information**

#### **About COVAX**

- It is **one of the three pillars of the ACT Accelerator** launched by the **World Health Organization**.
- The **COVAX facility** is a **joint initiative of WHO, GAVI Alliance and Coalition for Epidemic Preparedness Innovations (CEPI)** to **develop, buy and equitably** distribute approved COVID-19 vaccine to all countries.

#### **Aims**

- The **facility aims to bring together countries, international partners, and vaccine manufacturers** on one platform to ensure all countries get equitable access to safe and effective COVID-19 vaccines once they receive the required approvals.
- It also **aims to deliver at least 2 billion doses** of vaccines by the end of 2021.

#### **About ACT Accelerator**

- It is a **framework of collaboration** that aims to **accelerate production, development, and equitable access** to COVID-19 vaccine.
- It was launched by **WHO, France and the European Commission**.
- It has been built on three main pillars namely - **Therapeutics, Vaccines (COVAX), and Diagnostics**.

#### **About the Coalition for Epidemic Preparedness Innovations (CEPI)**

- It is a **global partnership** between public, private, philanthropic, and civil society organisations launched at World an Economic forum (WEF), Davos in 2017.
- It **aims to accelerate the development of vaccines** against emerging infectious diseases and enable equitable access to these vaccines for people during outbreaks.
- CEPI will also **support science projects** related to the development of **biological standards and assays**, animal models, epidemiological studies, and diagnostics, as well as build capacities for future clinical trials in risk-prone contexts.
- It is **headquartered in Oslo, Norway**.

#### **Funding**

- It is being funded by the **Welcome Trust, Bill and Melinda Gates Foundation, World Economic Forum (WEF), Governments of Norway, Japan, India (Department of Biotechnology) and Germany**.

#### **Topic- GS Paper II– International Organisation**

**Source- Indian Express**

### **San Isidro Movement**

#### **Why in the news?**

- Recently, San Isidro Movement has been seen in Cuba, which is a campaign by artists and activists demanding greater freedom of expression is fast grabbing the limelight.



### About the San Isidro Movement

- The **Movimiento San Isidro**, or the **San Isidro Movement (MSI)**, started in **2018** when the **Cuban government** sought to **enforce Decree 349**, a law that would have given powers to the **nation's Culture Ministry** to restrict **cultural activity** it did not approve of.
- The **landmark 2015** deal between **Cuba and the US** gave **crucial firepower** to the movement.
- It provided **provisions which stipulated that the Cuban regime** should allow its **people greater internet freedoms** in exchange for **opening bilateral relations with Washington**.



### About Cuba

- It is officially called **the Republic of Cuba**. It is a country comprising the island of Cuba, as well as Isla de la Juventud and several minor archipelagos.
- Cuba is in the **northern Caribbean** where the **Caribbean Sea, Gulf of Mexico, and the Atlantic Ocean** meet.
- **Havana** is the **largest city and capital of Cuba**.

### Topic- GS Paper II–International Issue

Source-Indian Express

### U.S. imposes CAATSA sanctions on Turkey over S-400 purchase

#### Why in the news?

- Recently, the **United States** has **imposed sanctions** on NATO-ally **Turkey** for its **purchase of Russia's S-400 missile defence system**.



### Highlights of the Sanctions

- The sanctions were issued **under Section 231 of the Countering America’s Adversaries Through Sanctions Act (CAATSA)**.
- The sanctions were **imposed on Turkey’s main defence procurement agency the Presidency of Defense Industries (SSB) for knowingly engaging in a significant transaction with Rosoboronexport (Russia’s main arms export entity”)** Implication of Sanction.
- These **SSB sanctions** comprise a **ban on granting specific U.S. export licences and authorisations for any goods or technology**.
- It also includes a **ban on loans or credits by U.S. financial institutions totalling more than \$10 million in any 12 months**.
- The sanctions **impose a ban on U.S. Export-Import Bank assistance for exports and mandated U.S. opposition to loans by international financial organisations to SSB**.
- These sanctions will also include **full blocking sanctions and visa restrictions on SSB president Ismail Demir and other officials**.

### Related Information

#### About Countering America’s Adversaries through Sanctions Act (CAATSA)

- A **Republican-controlled U.S. Congress** passed it in **July 2017**.
- Its core objective is to counter **Iran, Russia, and North Korea** through **punitive measures**.
- The **Act primarily deals** with sanctions on the **Russian oil and gas industry, defence and security sector, and financial institutions**, in the backdrop of its **military intervention in Ukraine** and its **alleged meddling in the 2016 U.S. presidential elections**.
- The Act empowers the **U.S. President to impose at least five of 12 listed sanctions** enumerated in **Section 235 on persons engaged in a “significant transaction” with the Russian defence and intelligence sectors**.
- As part of **Section 231 of the Act**, the **U.S. State Department** has notified **39 Russian entities**, dealings with which **could make third parties liable to sanctions**.

#### India and CAATSA

- CAATSA **impacts Indo-US ties and dents the image of the U.S. as a reliable partner**.

- At the time when the **U.S. is projecting India** as a **critical partner in its Indo-Pacific strategy**, the **U.S. National Security Strategy 2017** explicitly supporting **New Delhi's vital role** in this regard.
- In the **last decade**, **India's arms deal with the U.S. has grown from near zero to USD 15 billion.**

**Topic- GS Paper II–International Relation**

**Source-The Hindu**

### Pakistan approves chemical castration of sex offenders

**Why in the news?**

- Pakistan has recently **approved the chemical castration of rapists** as part of **sweeping new legislation** sparked by the outcry over the gang-rape of a mother on a motorway.



**About Chemical castration**

- It **reduces offenders' testosterone levels**, and the sex drive is lowered with the help of drugs.
- Throughout history, **chemical castration** has had **cultural, moral, and punitive significance.**
- Castration was an **“eye-to-eye style punishment” in Rome** and had historically been **used in India** as a sentence for rape and adultery and also notes that **castration in the religious context is “fairly common.”**
- The rationale behind using castration as punishment for sex offenders in the contemporary context is that reduced testosterone would lead to reduced libido and therefore reduced ‘deviant sexual activity.’

**Examples from other countries**

- Countries like **UK, Germany, South Korea, Poland, Indonesia, the Nordic and Scandinavian countries**, and states in the **US such as Florida, California, and Louisiana**, have enforced chemical castration as punishment in special sexual offending cases.
- In the US, state prison officials administer antidepressants to offenders to reduce their sexual urges.
- In **2013, South Korea's National Assembly** passed amendments to their sex crime-related laws allowing local courts to **order heinous repeat offenders to be subject to chemical castration.**

**Topic- GS Paper II– Governance +IR**

**Source- The Hindu**



## US recognises Morocco's sovereignty over Western Sahara

### Why in the news?

- **Morocco** agreed to **become the fourth Arab nation to normalise relations with Israel** in as many months, as part of a deal in which the US agreed to recognise its claim over the disputed Western Sahara region.



### About Western Sahara

- It is a **disputed territory** on the **northwest coast of Africa** bordered by **Morocco, Mauritania, and Algeria**.

### Geography

- It is a **vast, arid region** in **northwest Africa** that is larger than the size of the Indian state of **Uttar Pradesh**, but with **less than six lakh inhabitants**.
- It is **mineral-rich** and **home to abundant reserves of phosphate**, a **key ingredient** in the **manufacturing of synthetic fertilisers**.
- It also has **lucrative fish resources** and is **believed to have offshore oil**.
- The **Kasbah and mosque** in the **town of Semara (Smara)** are among the **major Muslim monuments** in **Western Sahara**.
- The principal city is **Laayoune**, the **old colonial capital**.

### What is the Western Sahara dispute?

- The **region first came under Spanish control in 1884** and was made a province called **'Spanish Sahara'** by the **European country in 1934**.
- It was annexed by **Morocco in 1975**.
- Since then, it has been the **subject of a long-running territorial dispute** between **Morocco and its indigenous Saharawi people**, led by the **Polisario Front**.
- The **Saharan Arab Democratic Republic (SADR)**, declared by the **Polisario Front in 1976**, is now **recognised by many governments** and is a **full member of the African Union**.

Topic- GS Paper II- international relations

Source- Washington Post

## World Anti-Doping Agency (WADA)

### Why in the news?

- Recently, **India** has pledged a sum of **USD 1 million** to the **World Anti-Doping Agency (WADA)** towards the **global agency's scientific research budget**, which will **allow WADA to develop innovative anti-doping testing and detection methods**.



### About the World Anti-Doping Agency

- It was **established in 1999** as an **independent international agency** composed and **funded equally** by the **sport movement and governments of the world**.
- The **International Olympic Committee** initiated its **foundation to promote, coordinate and monitor the fight against drugs** in sports.
- It is **headquartered in Montreal, Canada**. Its key activities include **scientific research, education, development of anti-doping capacities, and monitoring of the World Anti-Doping Code** – the document **harmonizing anti-doping policies** in all sports and all countries.

### The core value of the agency

- Integrity, Accountability and Excellence** are the core values of the agency.

### Topic- GS Paper II– International Organization

Source- DD News

## India-Vietnam Leaders' Virtual Summit

### Why in the news?

- Recently, the Prime Minister of India and the Prime Minister of Vietnam co-chaired a Virtual Summit.



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### Announcements made during the Summit

- India and Vietnam **signed seven agreements for cooperation** in areas such as **defence, petrochemicals, and nuclear energy**.
- Both nations **expressed satisfaction over the successful implementation** of the **High-Speed Guard Boat (HSGB) Manufacturing Project for Vietnam Border Guard Command**.
- They are also enhancing the number of annual **Quick Impact Projects (QIPs)** from **currently five to ten** commencing **FY 2021-2022**.

### Joint Vision Document

- The two leaders released a **joint vision document** and a **plan of action for bilateral engagements** during **2021-23**.
- This **joint vision for peace, prosperity and people** will send a **strong message to the world** about the **depth of our relationship**.

### Cultural Partnership

- The **Prime Minister** expressed **special satisfaction** about the **restoration and conservation work** of the **My Son temple complex in Vietnam** carried out by **Archaeological Survey of India (ASI)**.

### Strengthen cooperation against common global challenges

- They agreed to **maintain active cooperation** for ensuring **access to vaccines against the pandemic**.
- The **leaders decided that India and Vietnam** would coordinate closely at multilateral forums, including at the **UN Security Council**, where they will **serve concurrently in 2021**.

### Topic- GS Paper II–International Relations

#### Source-Indian Express

### More serious pandemic spreading across world: WHO

#### Why in news?

- **World Health Organization's** senior officials have warned that the **Coronavirus is not necessarily** the big one, and that there is a real chance of another, **more serious pandemic spreading across the world**.



- The **UN agency is learning new things** about the virus every day, including the **ability of new variants to spread**, make people sick, or have a **potential impact on available tests, treatments, or vaccines**.

- The scientists are **carrying out epidemiologic and laboratory studies** in the **UK and South Africa** which will guide the agency's next steps.
- **Dr. Mike Ryan**, the **WHO's head of Emergencies Programme** informed that the **next pandemic may be more severe** and there is **need to act together**, because with each day the **planet is becoming fragile** with an **increasingly complex society**.

**Topic: general Studies Paper II (Health Issues)**

**Source: AIR**

### Preventing Financing of Proliferation of Weapons of Mass Destruction

**Why in the news?**

- The **Turkish parliament** passed a **bill that would increase the monitoring of civil society groups**.
- The act is called “**Preventing Financing of Proliferation of Weapons of Mass Destruction**”.



**About the Preventing Financing of Proliferation of Weapons of Mass Destruction**

- The **Bill has come following the 2019 report on Turkey** prepared by the intergovernmental body **Financial Action Task Force (FATF)** meant to **fight money laundering and terror financing**.
- The **bill consists of 43 articles** and has made changes to seven laws on **Turkey's Law of Associations** and is meant to keep **Turkey from being blacklisted** by the **Paris-based watchdog of terror financing**.
- The **Bill gives the Turkish government** the power to appoint trustees to **non-governmental organizations (NGOs)**, to suspend their activities, seize their assets and monitor their sources of funding.
- As per various media reports, **critics and human rights activists** are seeing this move as a way to **crackdown on dissidents** in a country where **civil society is already not very free**.

### **Critics of the acts**

- The **critics are seeing certain provisions of the bill as arbitrary** and believe that it **violates the provisions** under the **Turkish constitution** since it interferes with the **right to freedom of association**.
- They are **seeing this move** as a way to **crackdown on dissidents** in a country where **civil society is already not very free**.

**Topic- GS Paper II–International Relation**

**Source-Indian Express**

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## Economic and Social Development

### Chardham project

#### Why in the news?

- Recently, the **environmentalists** have alleged that the **contractors** **deputed** by the government to make roads as part of the **Chardham project** are **violating** the Supreme Court orders on the **appropriate road width** to be followed in **mountainous terrain**.

### Road to disaster

Environmentalist concerns that have been highlighted by NGT include:

- Many sites of the mountain slopes along Char Dham highways have become unstable, and critical landslip zones have been activated
- There have been flash floods in Alaknanda valley and Bhagirathi valley, and earthquakes in Chamoli and Uttarkashi
- Road widening activity is a major trigger for landslips
- Cutting of trees loosens the soil and makes slopes unstable, and the project involves cutting the base of steep mountain slopes and Devdhar, Ton and Kail trees

#### About Chardham project

- The project involves developing and widening 900- km of national highways connecting the holy Hindu pilgrimage sites of; **Badrinath, Kedarnath, Gangotri, and Yamunotri**.
- The highway will be called b (Char Dham Highway) and the **highway construction project** will be called as **Char Dham Mahamarg Vikas Pariyojana** (Char Dham Highway Development Project).

### PILGRIMS' PROGRESS

Total project cost ₹12,000cr (Approx)

#### FEATURES OF REDEVELOPMENT

Realignment/ stabilization of major landslide areas, realignment away from rivers, long bridges/ viaducts & tunnel to bypass hazardous areas, reconstruction of narrow and distressed bridges, bypass for congested towns & wayside amenities

#### STRETCHES

Rishikesh-Rudraprayag (NH-58) - 140 km | Rudraprayag-Mana (NH-58) - 160 km | Rishikesh-Dharasu (NH-94) - 144 km | Dharasu-Gangotri (NH-108) - 124 | Dharasu-Yamunotri (NH-94) - 95 km | Rudra Prayag-Gaurikund (NH-109) - 76 km | Pithoragarh-Tanakpur (NH-125) - 150 km

Areas for realignment and new structures have been proposed based on the ground reports of devastation during last year's heavy rain

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### Implementing Agencies

- It involves **Uttarakhand State Public Works Department (PWD), Border Roads Organisation** and the **National Highway & Infrastructure Development Corporation Limited (NHIDCL)**.

### Project Mode

- The work under the programme is being implemented on **Engineering, Procurement and Construction (EPC) mode**.
- Under the **EPC mode**, the **project cost is completely borne** by the government.
- However, the **contractor is directly responsible for ensuring the quality of the work** as well as **rectification of defects and maintenance of the project stretch** for a **period of 4 years** after completion of construction.

**Topic- GS Paper III– Infrastructure**

**Source- The Hindu**

### Purchasing Managers' Index (PMI)

#### Why in the news?

- Recently, the latest **Purchasing Managers' Index (PMI)** has indicated that the nation's manufacturing sector lost momentum in November.
- **India's manufacturing sector activity** lost momentum and **fell to a three-month low in November** amid **slower increases in factory orders, exports and buying levels**.

#### About Purchasing Managers' Index (PMI)

- It was started in **1948** by the **US-based Institute of Supply Management**, the **Purchasing Managers' Index**, or **PMI**.
- The **Purchasing Managers' Index (PMI) data** are compiled by **IHS Markit for more than 40 economies worldwide**.
- **PMI or a Purchasing Managers' Index (PMI)** is an **indicator of business activity** -- both in the **manufacturing and services sectors**.
- It is a **survey-based measure** that asks the **respondents about changes in their perception** of some **key business variables** from the month before.
- It is **calculated separately for the manufacturing and services sectors** and then a **composite index is constructed**.
- The **PMI dataset features a headline number**, which indicates the overall health of an **economy**, and **sub-indices**, which provide insights into other key **economic drivers such as GDP, inflation, exports, capacity utilization, employment and inventories**.

#### Indicators

- The **Purchasing Managers' Index** is based on **five major indicators**: new orders, inventory levels, production, supplier deliveries and the employment environment.

#### Significance

- It gives an **indication of the economic health of the manufacturing sector**.

- The investors use **PMI surveys as leading indicators of economic health**, given their **insight into sales, employment, inventory, and pricing**.
- The purchasing managers' index is an **extremely important indicator for international investors** looking to form an **opinion on economic growth**.

**Topic- GS Paper III–Economics**

**Source- Indian Express**

### **IFSCA gets membership of International Association of Insurance Supervisors**

**Why in the news?**

- International Financial Services Centres Authority (IFSCA) has recently obtained membership of the International Association of Insurance Supervisors (IAIS).



**Benefits of the memberships**

- With this membership, IFSCA would have access to IAIS's global network and would be able to exchange ideas and information with other international regulators.
- This would help in developing a vibrant global Insurance hub in IFSC at GIFT City.
- It would also facilitate IFSCA in the joint development of a global insurance business with other international centres.

**About International Association of Insurance Supervisors (IAIS)**

- It had been established in 1994.
- The IAIS headquartered in Switzerland.
- It is a voluntary membership organization of insurance supervisors and regulators from more than 200 jurisdictions, constituting 97% of the world's insurance premiums.
- The IAIS also provides a forum for Members to share their experiences and understanding of insurance supervision and insurance markets.

**Some of the leading members of IAIS are:**

- o United Kingdom- Financial Conduct Authority (FCA),
- o USA- National Association of Insurance Commissioners (NAIC),
- o India- Insurance Regulatory and Development Authority of India (IRDAI) etc.



- In recognition of its collective expertise, the IAIS is routinely called upon by the G20 leaders and other international standard-setting bodies.

**Note:**

- IFSCA, established by the central government to regulate all financial services in International Financial Services Centres (IFSC) with the headquarters in **Gandhinagar (Gujarat)**.

**Topic- GS Paper III–Economics**

**Source-The Hindu**

**Taskforce set up to prepare a roadmap for imparting technical education in the mother tongue**

**Why in the news?**

- The Education Ministry has recently set up a task force for preparing a roadmap on imparting technical education, including engineering courses, in the mother tongue.



**About the Taskforce**

- The task force set up under the chairmanship of Secretary, Higher Education.
- They will take into consideration the suggestions made by various stakeholders and will submit a report in a month.
- The Indian Institutes of Technology (IITs) and the National Institutes of Technology (NITs) will start offering engineering courses in mother tongue from the next academic year.

**Topic- GS Paper III–Education**

**Source-AIR**

**Economy firmly on the path of a V-shaped recovery: Indian Govt**

**Why in the news?**

- Recently, **India's economy is firmly on the path of a V-shaped recovery** after the **collapse in the first quarter**, and further **improvement is expected in the third quarter**, 'notwithstanding some moderation' in November's indicators.

**Shapes of Economic Recovery**

- Economic recovery can **take many forms**, which is depicted **using alphabetic notations**.
- The **different type of shape of the economic recovery** is **Z-shaped recovery, V-shaped recovery, U-shaped recovery, elongated U-**

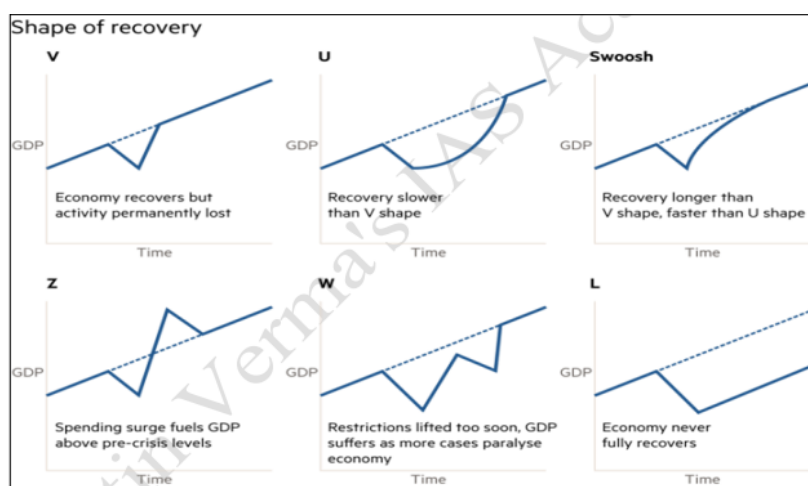
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**shaped recovery, W-shaped recovery, L shaped recovery, Swoosh and Inverted square recovery.**

- The alphabets generally **denote the graph of growth rate**, which resembles the shape of the letter.
- The **fundamental difference** between the **different kinds of recovery** is the **time taken for economic activity to normalize**.



### V-shaped recovery

- In V-Shaped recovery, the **economy quickly recoups lost ground and gets back to the normal growth trendline**.

### U-shaped recovery

- It resembles a **bathtub**, in which the economy, after falling, **struggles and muddles around** a low growth rate for some time, before rising gradually to normal levels.

### W-shaped recovery

- It is a **dangerous creature** — **growth falls and rises**, but falls again before recovering yet again, thus forming a **W-like chart**.
- The **double-dip depicted by a W-shaped recovery** is what some economists are predicting if the second wave of Covid comes along and the initial rebound flatters to deceive.

### L-shaped recovery

- It is the **worst-case scenario**, in which growth after falling, **stagnates at low levels and does not recover for a long, long time**.

### Swoosh shaped recovery

- It is like the **Nike logo** — **in between the V-shape and the U-shape**. Here, after falling, growth starts recovering quickly but then, slowed down by obstacles, moves gradually back to the trendline.

### J-shaped recovery

- In this, the **growth rises sharply from the lows much higher than the trendline and stays there**. Inverted square root shaped recovery.
- In this scenario, while there **could be a rebound from the bottom**, the growth slows and **settles a step-down**.

### **Inverted square root shaped recovery.**

- In this scenario, while there could be a **rebound from the bottom**, the **growth slows and settles a step-down**.

**Topic- GS Paper III–Economics**

**Source-The Hindu**

### **Technical Textiles**

#### **Why in the news?**

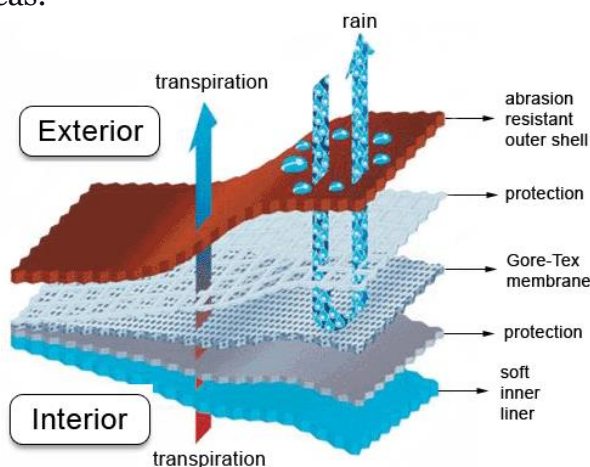
- **Ministry of Textiles** has invited proposals for constitution of a dedicated **Export Promotion Council (EPC)** for Technical Textiles.
- The **Exporter Association and Trade bodies registered under Companies Act or Society Registration Act** have been asked to submit a proposal for constitution of a dedicated EPC for Technical Textiles.

#### **About Technical Textiles**

- Technical textiles are **textiles materials and products manufactured primarily for technical performance** and functional properties rather than **aesthetic characteristics**.



- **Technical Textiles** products are divided into **12 broad categories** (Agrotech, Buildtech, Clothtech, Geotech, Hometech, Indutech, Mobiltech, Meditech, Protech, Sportstech, Oekotech, Packtech) depending upon their application areas.



- India shares nearly **6% of world market size of 250 Billion USD**.

- However, the **annual average growth of the segment is 12%**, as compared to **4% world average growth**.
- Technical Textiles are a **futuristic and superior segment of textiles**, which are **used for various applications ranging from agriculture, roads, railway tracks, sportswear, health** on one end to bulletproof jackets, fireproof jackets, high altitude combat gear and space applications on **another end of the spectrum**.

### Related Information

#### About National Technical Textiles Mission

- The **Government has approved the proposal** for the creation of **National Technical Textiles Mission** for a period of **4 years (2020-21 to 2023-24)**.
- The **focus of the Mission** is for developing on the **usage of technical textiles in various flagship missions**, programmes of the country, including strategic sectors.
- The **Mission shall work for the holistic development** of the **entire technical textile sector** on a pan-India basis.

#### Note:

- **Constitution of an Export Promotion Council for Technical Textiles** is part of one of the **components of the National Technical Textiles Mission**.

Topic- GS Paper III–Economics

Source-PIB

### Madhya Pradesh to treat 1 lakh malnourished children

#### Why in the news?

- The **Madhya Pradesh government** is preparing to **deal with a likely surge in children suffering from severe acute malnutrition (SAM)**, by chalking out a strategy to **cater to 1 lakh such children by emphasising community-led efforts to overcome shortcomings in health infrastructure**.



#### Related information

Wasting due to COVID-19

- According to a **Lancet article** published on **July 27**, “there could be a **14.3% increase in the prevalence of moderate or severe wasting among children younger than five years** due to COVID-19-related losses”.

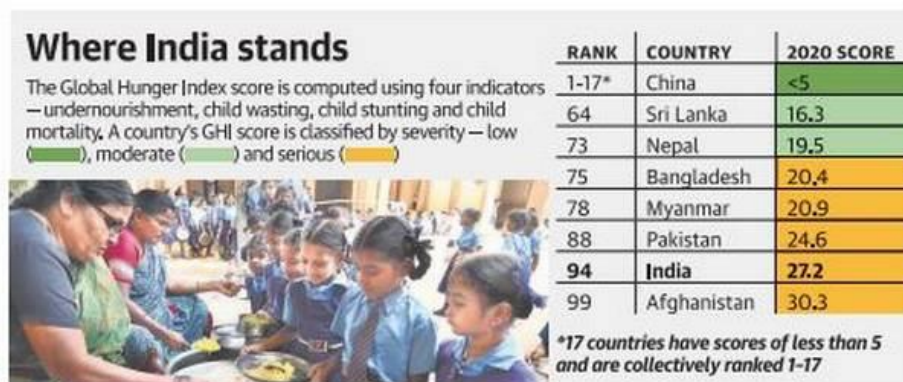
#### Status of Malnutrition in India

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- The **Food and Agriculture Organization (FAO)** estimates that **194.4 million people in India** (about 14.5% of the total population) are undernourished.
- According to the **Indian Council of Medical Research (ICMR)**, in 2017, **malnutrition** was the predominant risk factor for death in **children younger than five in every state of India**.
- According to the **Global Burden of Disease Study 2017**, malnutrition is among the **leading causes of death and disability in India**.



### India and Global Hunger Index

- India has the **highest prevalence of wasted children under five years in the world**, which reflects acute undernutrition.
- India ranks **94 out of 107 countries in the Index 2020**. It is lower than her neighbours, such as **Bangladesh (75) and Pakistan (88)**.
- In **2019 Indian ranked 102 Global Hunger Index**.
- The report put **India under severe category with a score of 27.2**.
- The **child stunting rate** in India was **37.4 %**.
- The **child wasting** was at **17.3 %**.
- The **undernourishment rate of India** was at **14% and child mortality at 3.7 %**.

**Topic- GS Paper II–Health issue**

**Source-The Hindu**

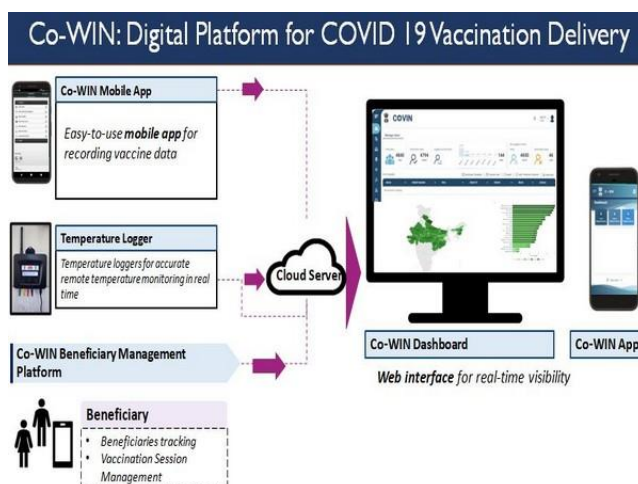
### CO-WIN mobile app

#### **Why in the news?**

- The **central government** has recently introduced a **new digital platform called 'CO-WIN' for COVID-19 vaccine delivery**.

#### **About the CO-WIN mobile app**

- The **platform will be used for recording vaccine data and will form a database of healthcare workers too**.
- All COVID-19 related **data necessary for the delivery of the vaccine is presently being uploaded on the CO-WIN platform**.
- The app will have **separate modules for administrator, registration, vaccination, beneficiary acknowledgement and reports**.
- The CO-WIN platform will also be used to **send real-time temperature details of storage facilities to the main servers**.



## Topic- GS Paper II – Health Issue

Source- PIB

### United Nations Investment Promotion Award

#### Why in the news?

- The UN Conference on Trade and Development (UNCTAD) has declared **Invest India- the National Investment Promotion Agency of India-** as a winner of the **2020 United Nations Investment Promotion Award**.



#### About the United Nations Investment Promotion Award

- United Nations Investment Promotion Award** is the most coveted award for **Investment Promotion Agencies** given by the **United Nations Conference on Trade and Development (UNCTAD)**.
- The award recognizes and celebrates the **outstanding achievements and best practices of Investment Promotion Agencies (IPAs)** across the globe.
- The **evaluation was based on UNCTAD's assessment** of work undertaken by **180 Investment Promotion Agencies**.

#### Past Winner

- Germany, South Korea, and Singapore** have been **some of the past winners of the award**.

## Related Information

### About Invest India

- It was set up in 2009 as a non-profit venture under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce, and Industry.
- It is the National Investment Promotion and Facilitation Agency of India and acts as the first point of reference for investors in India.

### About the United Nations Conference on Trade and Development

- The United Nations General Assembly established UNCTAD in 1964, and it reports to the UN General Assembly and United Nations Economic and Social Council.
- The Headquarters of the UNCTAD is located at the Palais des Nations in Geneva.
- The primary objective of UNCTAD is to formulate policies relating to all aspects of development including trade, aid, transport, finance, and technology.

### Topic- GS Paper III–Economics

#### Source- PIB

## Cabinet approves Atmanirbhar Bharat RojgarYojana (ABRY)

### Why in the news?

- The Union Cabinet has recently given its approval for Atmanirbhar Bharat RojgarYojana (ABRY) to boost employment in the formal sector and incentivize the creation of new employment opportunities during the Covid recovery phase under Atmanirbhar Bharat Package 3.0.
- The entire scheme period is from 2020-2023.

### Salient features of the Scheme:

- Government of India will provide subsidy for two years in respect of new employees engaged on or after October 1, 2020, and up to June 30, 2021.
- Government of India will pay both 12% employees' contribution and 12% employers' contribution, i.e. 24% of wages towards EPF in respect of new employees in establishments employing up to 1000 employees for two years,
- Government of India will pay only employees' share of EPF contribution, i.e. 12% of wages in respect of new employees in establishments employing more than 1000 employee for two years.
- An employee is drawing a monthly wage of less than Rs. 15000/- who was not working in any establishment registered with the Employees' Provident Fund Organisation (EPFO) before October 1, 2020 and did not have a Universal Account Number or EPF Member account number before October 1, 2020, will be eligible for the benefit.

### Topic- GS Paper III– Economy

#### Source- PIB

## Policy on School Bag 2020

### Why in the news?

- Recently, the Policy on School Bag 2020 has prepared by the Union education ministry, recommended that school bags should not be more than 10% of the

bodyweight of students across classes I to X and there should be no homework till class II.



### About the Policy on School Bag 2020

- The new 'Policy on School Bag 2020' also recommends that the weight of the bag needs to be monitored regularly in schools.

### Recommendation

- The 'Policy on School Bag 2020' made 11 recommendations on the weight of the bags, including adequate good quality mid-day meal and potable water to all the students so that they need not carry lunch boxes or water bottles.
- The recommendations have been arrived based on various surveys and studies conducted by the National Council of Educational Research and Training (NCERT).
- They should be light-weight with two padded, and adjustable straps that can squarely fit on both shoulders and no wheeled carriers should be allowed.
- The policy even recommends that the weight of each textbook may come printed on them by the publishers.
- The policy said there should be no bags in pre-primary. For classes, I and II, the bag weight range should be between 1.6 kg to 2.2 kg. Like-wise it should be 1.7 kg to 2.5 kg, 2 kg to 3 kg, 2.5 to 4 kg, 2.5 kg to 4.5 kg and 3.5 kg to 5 kg for classes III to V, classes VI and VII, class VIII, classes IX and X and classes XI and XII respectively.

**Topic- GS Paper III– Education**

**Source- The Hindu**

### [DakPay: A digital payments app](#)

#### Why in the news?

- **Union Minister for Communications, Electronics & IT** has recently launched '**DakPay**': A digital payments application.

#### About DakPay

- It is **digital payments services** of the **Indian Post Payment Bank (IPPB)** and **Department of Posts**.
- The **App is launched** as **part of its ongoing efforts** to provide **Digital Financial inclusion** at the last mile across India.

#### Features:

- It will **facilitate services** such as **sending money, scanning QR codes for payments to merchants** digitally-either through **virtual debit cards**



or with UPI, and **making payments for services**, and to merchants, digitally.

- It will also provide interoperable banking services to the customers with any bank in India.



- The services will be **provided through the trusted Postal ('Dak') network** across the nation to cater to the **financial needs ('Pay') of various sections** of the society.

### Significance of DakPay

- It brings **simplified payment solutions** to all by offering all customers access to the **banking and payments products and services**.
- It is a landmark achievement in IPPB's journey and will further deepen comprehensive financial inclusion to bring forth the dawn of a **'Truly Inclusive Financial System'**.

Topic- GS Paper III–Economics

Source-The Hindu

### Digital Health Passport

#### Why in the news?

- Recently a **VST Enterprises (VSTE)**, a **British company** specialized in **cyber technologies**, launched the **world's first virtual health passport** for air travel.



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### About Digital Health Passport

- The 'V-Health Passport' does not use a bar or QR code technology and instead relies on 'VCode' to provide advanced closed-loop technology, end-to-end encryption, and 2.2 quintillion collision-free combination codes.
- It is the world's first publicly available secure digital health passport that the public can download and use alongside any form of COVID-19 testing and vaccination.
- The commonplace system, backed by the World Economic Forum (WEF), is designed to create a common international standard for passengers to demonstrate they do not have coronavirus.

### Significance of Digital Health Passport

- The digital health passport aims to provide next-generation code authentication technology.
- It can be used across borders when travelling by air, land, or sea.
- V-Health Passport (TM) also has its own unique contact tracing capability 'True Contact (TM)' built within the technology designed for travel, sports stadiums, venues, factories, offices, and construction sites.
- It is the only health wallet and crosses border platform in the world that is multi-functional and GDPR compliant.
- It allows acts like 'self-sovereign identity', meaning a citizen's personal data is protected, and they choose what they want to share and with whom they wish to interact or authorize.

Topic- GS Paper III–health Issue

Source-New York Times

### National Hydrology Project (NHP)

#### Why in the news?

- A review of the National Hydrology Project (World Bank-supported initiative of Ministry of Jal Shakti) was carried out by the Minister of Jal Shakti, Shri Rattan Lal Kataria in recent times.



### About National Hydrology Project (NHP)

- The Project was started in 2016 as a Central Sector Scheme, which is assisted by the World Bank.
- The Project aims at improving the extent, reliability, and accessibility of water resources information and to strengthen the

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**capacity of targeted water resource management** institutions in the country.

- It is **expected to take forward the success** of the **Hydrology Project-I and Hydrology Project-II** by covering the entire country, including the states **along the Ganga and Brahmaputra-Barak basins**.
- Earlier **Project-I and Project-II** were limited only to **large river systems viz. Krishna and Satluj-Beas**.
- They had **established real-time flood forecast systems** to give **reservoir managers an accurate picture** of the **water situation** in their region.

**Topic- GS Paper III– Infrastructure**

**Source- PIB**

### eSanjeevani Tele-medicine

**Why in the news?**

- The **Ministry of Health and Family Welfare** recently announced that the **eSanjeevani telemedicine** crossed **one million teleconsultations**, which is the **first of its kind** to deliver health services online.



**About eSanjeevani**

- It is a **doctor-to-doctor telemedicine system** being implemented under the **Ayushman Bharat Health and Wellness Centre (AB-HWCs)** program.
- **AB-HWCs** are envisaged as the **platform for delivering** an expanded range of **primary health care services** closer to the communities.
- It seeks to **connect all 1 50,000 HWCs** using the **hub-and-spoke model by December 2022**.
- Under the model, a **network will be established comprising an anchor establishment, or hub, which offers a full array of services**.
- It will **complement secondary establishments, or spokes, which provide limited services, routing patients needing more intensive services to the hub for treatment**.

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### Related Information About Telemedicine

- As per the **World Health Organisation (WHO)**, telemedicine is the delivery of **health care services**, where **distance is a critical factor**, by **all health care professionals using Information Technology (IT) for diagnosis, treatment, and prevention of disease and injuries, research, and evaluation** etc., all in the **interests of advancing the health of individuals** and their communities.
- Tele-consultation is **one of the applications of telemedicine**.

Topic- GS Paper II– Health Issue  
Source-TOI

### [U.S. Puts India Back on Currency Manipulation Watchlist](#)

#### Why in the news?

- Recently, the **United States** has once again **included India** in its **monitoring list of countries** with **potentially questionable foreign exchange policies** and **currency manipulation**.

#### About Currency Manipulator

- The **U.S. Treasury Department** defines **currency manipulation** as when **countries deliberately influence** the exchange rate between **their currency and the U.S. dollar** to gain "**unfair competitive advantage in international trade**".

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WHAT IT MEANS...	
<p><b>For India</b>   There will be <b>pressure on RBI to cut down intervention</b>, allow the rupee to appreciate</p>	<p><b>For economy</b>   A stronger rupee would <b>partially offset the impact of rising oil prices</b> on imports</p>
<p><b>In terms of restrictions</b>   The tag <b>does not involve any kind of trade restrictions</b></p>	<p><b>For RBI</b>   The central bank can <b>increase diversification of its reserves</b> to include non-dollar assets</p>

The U.S. Treasury has established thresholds for the three criteria.

- First, a **significant bilateral trade surplus** with the U.S. is one that is **at least \$20 billion**.
- Second, a **material current account surplus** is one that is **at least 3% of GDP**.
- Third, persistent, **one-sided intervention** reflected in **repeated net purchases of foreign currency** and total **at least 2% of an economy's GDP** over a year.
- The **treasury's goal** is to **focus attention** on those nations whose **bilateral trade is most significant** to the U.S. economy and whose **policies are the most material** for the global economy.

Which are the other countries in the latest monitoring list?

- The U.S. Department of the Treasury Office of International Affairs, in its latest report to the U.S. Congress, has included **India, Taiwan and Thailand to its Monitoring List**.
- Other countries in the latest list comprise **China, Japan, Korea, Germany, Italy, Singapore, Malaysia**.
- **India** was last **included in the currency watchlist in October 2018** but **removed** from the list that **came out in May 2019**.

**Implications**

- The **designation of a country as a currency manipulator** does not **immediately attract any penalties** but tends to dent the **confidence** about a country in **the global financial markets**.
- Once a country is **designated as a currency manipulator by the U.S.**, the **next step taken by the U.S. government** is to **seek negotiations** with the **government accused of manipulation**.

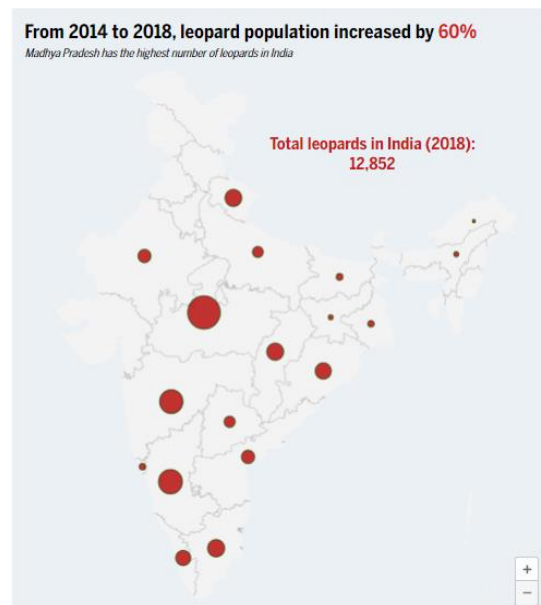
**Topic- GS Paper III–Economy**

**Source- Livemint**

### Status of Leopards in India

**Why in the news?**

- Recently, the Ministry of Environment has released the Status of Leopards in India 2018 report.



### Key highlights of the report

- The leopard population has been estimated using **camera trapping method**. There are 12,852 leopards in India as of 2018, an increase of 60% since 2014.
- The highest concentration of the Leopard in India is estimated to be in Madhya Pradesh (3,421) followed by Karnataka (1,783) and Maharashtra (1,690).
- Recent **meta-analyses of leopard status and distribution** suggest 48–67% range loss for the species in Africa and 83–87% in Asia.
- In India, leopards have experienced a possibly human-induced **75-90% population decline in the last ~120-200 years**.

### Related Information

#### Snow Leopard

- International Snow Leopard Day was observed on **23 October** which came into being with the adoption of the **Bishkek Declaration** by 12 countries on the conservation of snow leopards.



- The 12 countries included **India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan**. The Bishkek Declaration set a goal of protecting at least 20 snow leopard landscapes with viable **snow leopard populations by 2020** and led to the formation of the **Global Snow Leopard and Ecosystem Protection Program (GSLEP)**.

### India and the Snow leopard

- The Indian government has launched a community volunteer programme “**HimalSanrakshak**” to protect snow leopards.

### Distribution in India

- The snow leopard is found along the upper reaches of the Himalayan range.
- These are found in Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.

### Snow Leopard conservation in India:

- India has been conserving snow leopard and its habitat through the Project Snow Leopard (PSL).
- **Project Snow Leopard (PSL) was launched in 2009** to promote an inclusive and participatory approach to conserve snow leopards and their habitat.
- India is also a party to the **Global Snow Leopard and Ecosystem Protection (GSLEP) Programme since 2013**.

### For conservation, India has identified three large landscapes, namely

- a. Hemis-Spiti across Ladakh and Himachal Pradesh
- b. Nanda Devi – Gangotri in Uttarakhand
- c. Khangchendzonga – Tawang across Sikkim and Arunachal Pradesh.

### Topic- GS Paper III–Environment

Source- The Hindu

### RBI Positive Pay System

#### Why in the news?

- Recently, the **Reserve Bank of India (RBI)** has announced to introduce the ‘**Positive Pay System**’ for cheques’ transactions **above Rs 50,000**. This move is to **enhance safety and eliminate frauds**.



#### About Positive Pay System

- Under this process, the issuer of the cheque submits electronically (through channels like SMS, mobile app, Internet banking and ATM) specific minimum details of that cheque to the drawee bank, details of which are cross-checked

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with the presented cheque by **Cheque Truncation System (CTS)**. The National Payments Corporation of India (NPCI) will develop the facility of Positive Pay in CTS and make it available to participant banks.

- **The Positive Pay System will be implemented on January 1, 2021.**
- The Positive Pay system is to augment customer safety in cheque payments and reduce fraud occurring on account of tampering of cheque leaves.

#### **Types of Cheque under Positive Pay System**

- The banks will enable the new system for all account holders issuing cheques for Rs 50,000 and above.
- While availing of this facility is at the discretion of the account holder, banks may consider making it mandatory in cheques for amounts of Rs 5, 00,000 and above.

#### **What will be the share of Positive Pay in overall cheque transactions?**

- The new measure will cover approximately 20 per cent and 80 per cent of total cheques issued in the country by volume and value, respectively.
- The **Cheque Truncation System (CTS)** for clearing cheques is operational pan-India. It presently **covers 2 per cent and 15 per cent** of total retail payments in terms of volume and value.
- The average weight of a **cheque cleared in CTS presently is Rs 82,000.**
- The CTS-2010 standard specifying minimum security features on cheque leaves acts as a deterrent against cheque frauds. In contrast, standardisation of field placements on cheque forms enables straight-through-processing using optical or image character recognition technology.

#### **Topic- GS Paper III–Economics (Banking System)**

Source-Indian Express

### Year-End Review 2020-Ministry of Consumer Affairs, Food & Public Distribution

#### **Why in the news?**

- The Year-End Review 2020 of the **Ministry of Consumer Affairs, Food & Public Distribution** was published, which **provided significant highlights** of the **Department of Consumer Affairs** during 2020.



#### **Highlights**

##### **Consumer Protection**

- The **Consumer Protection Act, 2019** which has replaced the **Consumer Protection Act, 1986** were **notified in July 2020.**
- The **relevant Rules and Regulations**, including the **E-Commerce Rules**, which **specify the duties and obligations of sellers and e-commerce entities**, were also notified.



- In pursuance of **Rule 8** of the **Consumer Protection (Consumer disputes Redressal Commission) Rules, 2020**, an online portal '**eDaakhil**' was launched for electronic filing of consumer cases in the **National Consumer Disputes Redressal Commission**.

#### **COVID-19 related initiatives**

##### **Under the Essential Commodities Act**

- Masks (**2 ply & 3 ply surgical masks, N95 masks**) and **Hand sanitizers** were added in the **list of essential commodities** under the **Essential Commodities Act** to ensure their **availability and stop hoarding / short supply**.
- The **ceiling prices of masks** (2 plies & 3 plies) **Melt blown non-woven fabric**, and **hand sanitizers** were **fixed to ensure their easy availability**.

##### **Pradhan Mantri Garib Kalyan Anna Yojana**

- It is a **unique package** that included the **provision of one kg per family of NFSA beneficiaries**, of **pulses like moong, tur, chana and urad** was approved for three months from **April to June** to ensure **adequate protein availability the poor**.
- The **PMGKAY package** was **extended beyond the initial period of 3 months** until the **end of November 2020**.

##### **Atma Nirbhar Bharat package**

- Under the **Atma Nirbhar Bharat package**, a provision was made for the **supply of 2 kg** of the whole **chana from Government buffer stocks** per **migrant worker family** who were not covered under the **National Food Security Act**.

##### **Ease of Doing Business**

- **Online registration and renewal of jewellers** and online recognition and **renewal recognition of Assaying and Hallmarking centres** were launched.
- The **BIS** gave **temporary relaxations** in the **provisions of BIS Regulations, Schemes and Guidelines**, including **providing special benefits of approximately 54.38 crores** for BIS licensees from the **MSME manufacturing sector**.

##### **Price Stabilization Fund (PSF)**

- Under **PSF**, **building buffer stock of pulses up to 20 lakh MT** was **approved for effective market intervention**. Nearly **8.5 Lakh farmers** were benefitted through the **purchase of pulses at MSP for the buffer**.
- The pulses from buffer were **utilized for Public Distribution System, Mid-day Meal Scheme and Integrated Child Development Scheme**.

##### **Bureau of Indian Standards (BIS)**

- BIS has **actively progressed** towards **automating all its activities** by **developing and implementing software applications/online portals** under the **e-BIS project**.
- The **e-BIS** has been **envisaged encompassing BIS activities** and with advanced **features like data analytics, artificial intelligence, better MIS for effective monitoring, user-friendly interfaces**, etc.

- A **Standards Portal** has been developed for digitization of the Standards formulation process.
- **Quality Control Order** for mandatory **Hallmarking of Gold Hallmarking and Gold Artefacts order, 2020** was notified making hallmarking of Gold jewellery and artefacts mandatory in the country which shall come into effect from **1st June 2021**.

#### National Test House

- The **National Test House**, which works in testing, evaluation and quality control of various engineering materials and finished products, created high technology test facilities in its regional offices.
- It has also procured new instruments such as **Power Quality Analyzer, Cement Autoclave, Thermal Endurance Chamber, DC High Voltage Insulation Tester** etc.

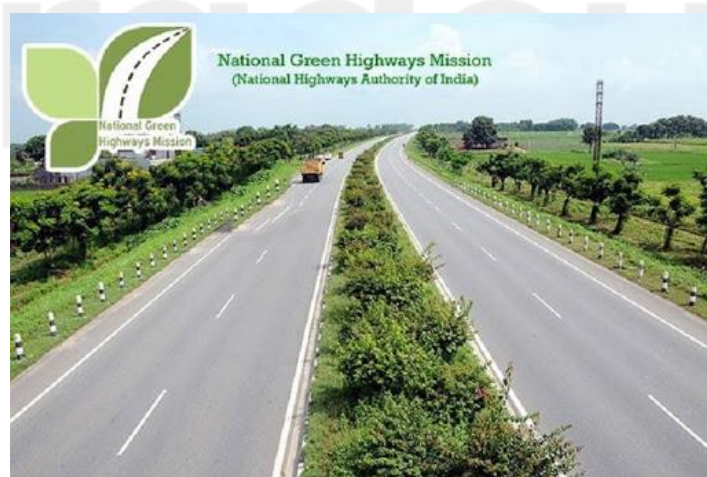
#### Topic- GS Paper III–Economics

Source-PIB

### Green National Highways Corridors Project

#### Why in the news?

- Recently, the **World Bank and Government of India** have signed a **\$500 million agreement** for the **Green National Highways Corridors Project**.



#### About Green National Highways Corridors Project

- It aims to **build safe and green national highway corridors** in **Rajasthan, Himachal Pradesh, Uttar Pradesh, and Andhra Pradesh**.

#### Objective

- The **ultimate objective of transport infrastructure** is to provide **seamless connectivity and reduce logistics costs**.
- The project will **support analytics to map the freight volume and movement pattern** on the **National Highway network**, **identify constraints**, and **provide innovative logistics solutions**.

#### Green Highway Policy

- Under the **Green Highway Policy**, **Rs 1,000 crores** per year will be available for **plantation purpose**.

- The plantations will be monitored by **BHUVAN and GAGAN satellite** systems of ISRO.

### Significance of Green National Highways Corridors Project

- It will support the **Ministry of Road Transport & Highways (MoRTH) construct 783 km** of highways in various **geographies by integrating safe and green technology designs.**
- The project will help **reduce GHG emissions in the construction and maintenance of highways.**
- The project will also **enhance the capacity of the MoRTH in mainstreaming safety and green technologies.**
- The project will **support the ministry with an in-depth analysis of gender-related issues in the transport sector and help create jobs for women.**
- The **project will strengthen and widen existing structures; construct new pavements, drainage facilities and bypasses; improve junctions; and introduce road safety features.**

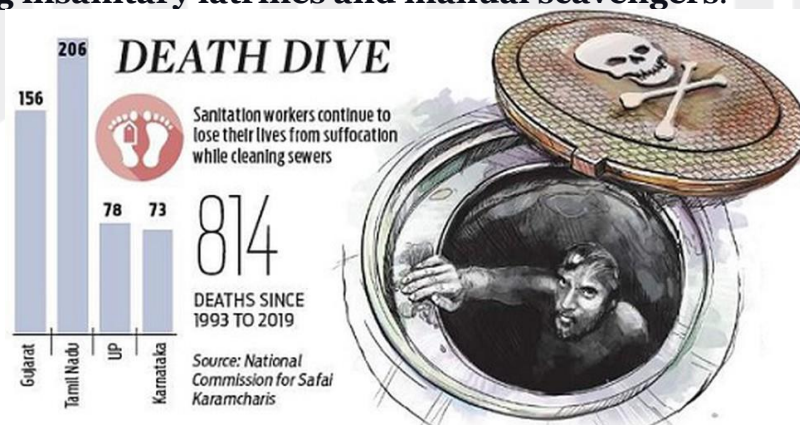
Topic- GS Paper III–Infrastructure

Source- The Hindu

### "Swachhata Abhiyan": A Mobile app

Why in the news?

- **Union Minister for Social Justice and Empowerment** launched 'Swachhata Abhiyan', a mobile application to **identify and geotag insanitary latrines and manual scavengers.**



### About the mobile application Swachhata Abhiyan

- It will **provide the authorities concerned** details of any insanitary latrine or **manual notice** by the authority.
- This application would **help in rehabilitating all manual scavengers and replace insanitary latrines** with sanitary ones.



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## Related Information

### About the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013

- This Act came into effect from **6th December 2013**.
- This **Act intends to achieve its objectives of eliminating insanitary latrines, the prohibition of employment as manual scavengers etc.**
- In this **Act, the National Commission for Safai Karamcharis (NCSK) would monitor implementation of the Act and enquire into complaints regarding contravention of the provisions of the Act.**
- Under the provision, **no person, local authority, or agency should engage or employ people for hazardous cleaning of sewers and septic tanks.**
- **Mechanised cleaning** of septic tanks is the prescribed norm.
- **A violation can be punished with two years of imprisonment or fine or both.**

### Order of Honorable Supreme Court

- **Supreme Court issued a slew of directions in 2014 to prevent and control the practice and to prosecute the offenders.**
- It also **directed the government to pay a compensation of 10 lakh rupees to the family members of those killed in acts of manual scavenging since 1993.**

### Topic- GS Paper II–Social Issues

#### Source-Indian Express

### FASTag

#### Why in the news?

- Recently, **Road Transport & Highways Minister** has announced that **FASTag is being made mandatory for all vehicles in the country from 1st January 2021.**

#### Related Information

- **Union Ministry of Road Transport and Highways** had issued a notification in **November 2020**, making **FASTag mandatory by 1st January 2021** in old vehicles also sold before 1 December 2017 through amendments in **Central Motor Vehicles Rules (CMVR), 1989.**
- As per **Central Motor Vehicles Rules, 1989**, since **1st December 2017**, the FASTag had been **made mandatory for all registration of new four-wheeled Vehicles** and is being **supplied by the Vehicle Manufacturer or their dealers.**



- It had further been **mandated that the renewal of fitness certificate** will be done only after the **fitment of FASTag for the Transport Vehicles.**
- **For National Permit Vehicles**, the fitment of FASTag was **mandated since 1 October 2019.**
- It has also been **mandated that a valid FASTag** is mandatory while getting a **new 3rd Party Insurance** through an **amendment in FORM 51** (certificate of Insurance), wherein the details of **FASTag ID** shall be captured.
- This shall be applicable with effect from **1 April 2021.**

#### How does FASTag work?

- The device employs **Radio Frequency Identification (RFID) technology** for payments directly from the prepaid or savings account linked to it.
- It is affixed on the **windscreen**, so the vehicle can **drive through plazas without stopping.**
- It is valid for **five years** and can be **recharged as and when required.**
- The payment method is a part of the **National Electronic Toll Collection (NETC) programme.** The **National Payments Corporation of India (NPCI)** collects the payments.

#### Significance

- This would be a **major step for ensuring that the payment of fees be 100% at Toll Plazas** through the **Electronic Means** only and that the **vehicles pass seamlessly** through the Fee Plazas.
- There would be no **waiting time at the Plazas** and would save fuel.

**Topic- GS Paper III–Economy + Science and Technology**

**Source-Indian Express**

### COVID Vaccine Intelligence Network (CoWIN) system

#### Why in the news?

- Recently, **Health Ministry along with Ministry of Electronics and Information Technology, MeitY** has launched a **Grand Challenge for strengthening the COVID Vaccine Intelligence Network, (CoWIN) system.**



#### About CoWIN system

- It is a **digitalised platform to be used to effectively roll out and scale up the mechanism for COVID Vaccine Distribution System** nationally.

- It will be launched on the **MSH (MeitY Startup Hub) portal**, a **collaborative platform** developed under the **aegis of MeitY** towards **building meaningful synergies** in the **Indian tech start-up space**.
- The **challenge invites participation** from **talented and innovative start-ups and emerging technology specialists** to augment and scale the CoWIN platform.
- MoHFW has **identified seven (07) focus areas of technology** development to holistically address the **likely limitations associated** with the **complete and effective vaccine distribution system (VDS)** and its **seamless administration across India**.

**These are:**

- High Adherence rate
- Portability across India
- Vaccine Transportation
- Queue management
- Report adverse event following immunisation and the adverse event of special interest
- Learning Management System
- Logistic Management Information System

**Topic- GS Paper II–Social Issues**

**Source-Indian Express**

### Zero-coupon bonds

**Why in the news?**

- The **government has used Zero-Coupon Bonds** to **recapitalize Punjab & Sind Bank** by issuing the **lender Rs 5,500-crore** worth of **non-interest-bearing bonds valued at par**.



**About Zero Coupon Bond**

- The **zero-coupon bond** is a bond that **pays no interest** and **trades at a discount to its face value**.
- It implies that the **investor is purchasing zero-coupon bond** profits from the **difference between the buying and face value**, contrary to the **usual interest income**.
- It is also called a **pure discount bond** or **deep discount bond**.
- The **Zero-Coupon Bond** is issued by the **Central Government**, **specifically to a particular institution**.

### Maturity Period

- A Zero-Coupon Bond is a **non-interest bearing, non-transferable special Government of India securities** with a **maturity of 10-15 years**.

### Related Information

#### About Traditional Zero-Coupon Bonds

- These are **debt security** that does not **pay interest** but instead trades at a **deep discount**, rendering a **profit at maturity**, when the bond is redeemed for its **full-face value**.
- The **difference between the purchase price** of a zero-coupon bond and the par value **indicates the investor's return**.

#### Zero-Coupon Bonds issued by Private Firms

- The **zero-coupon bonds** issued by **private companies** are normally **issued at a discount**, but the **government's zero-coupon bonds** are special bonds that are not **tradable as these** can be given at par.

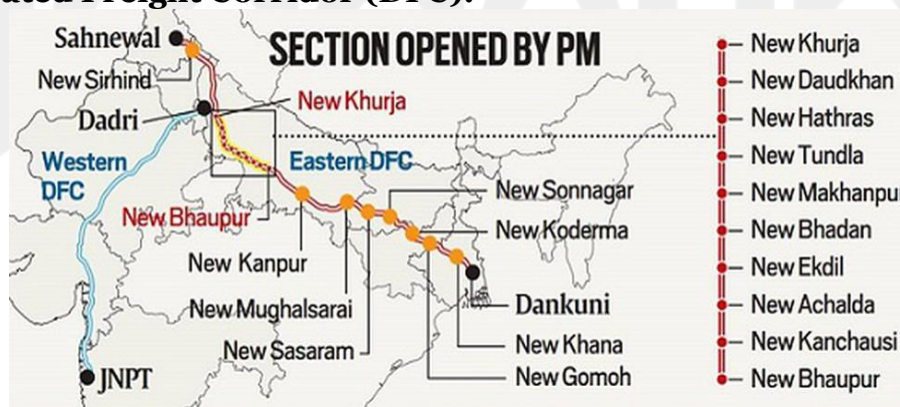
### Topic- GS Paper III–Economics

Source- The Economics Times

### Dedicated Freight Corridor

#### Why in the news?

- Recently, the **Prime Minister** has inaugurated the section between **Khurja and Bhaupur in Uttar Pradesh for commercial operations** of the **Dedicated Freight Corridor (DFC)**.



- The DFC consists of two arms.
  - a. Eastern Dedicated Freight Corridor**
    - It is 1,839-km line that **starts from Sahnewal (Ludhiana) in Punjab** and ends at **Dankuni in West Bengal**.
    - It is being majorly funded by the **World Bank**.
  - b. Western Dedicated Freight Corridor**
    - It is around **1,500-km line** that starts from **Dadri in Uttar Pradesh to JNPT in Mumbai**, touching **all major ports** along the way.
    - It is being majorly funded by **Japan International Cooperation Agency**.

### **About Dedicated Freight Corridor Corporation of India Limited (DFCCIL)**

- It is a **Public Sector Undertaking (PSU) corporation** run by the **Ministry of Railways** to undertake **planning, development, and mobilization of financial resources and construction, maintenance, and operation** of the **Dedicated Freight Corridors (DFC)**.

### **Why Dedicated Freight Corridor (DFC) is important?**

- Around **70% of the freight trains** currently running on the **Indian Railway network** are slated to **shift to the freight corridors**, leaving the paths open for more passenger trains.
- The tracks on **Dedicated Freight Corridor** are **designed to carry heavier loads** than most of Indian Railways.
- The **Dedicated Freight Corridor** will get **track access charge** from the parent Indian Railways and **generate its own freight business**.

### **The objectives of DFC are:**

- To **create world-class rail infrastructure** with **advanced technology** and knowledge to **carry higher throughput per train**.
- To **improve overall transport efficiency**.
- To **offer customer guaranteed, faster transit, energy efficient, environment-friendly transport**.
- To **encourage total supply chain management**.

**Topic- GS Paper III–Infrastructure**

**Source- The Hindu**



## Science and Technology

### Giant Metrewave Radio Telescope (GMRT)

#### Why in the news?

- The **Giant Metrewave Radio Telescope (GMRT)** has recently received the prestigious '**Milestone**' facility by the **U.S.-based Institute of Electrical and Electronics Engineers (IEEE)**.



#### About Giant Metrewave Radio Telescope

- It is **one of the largest and most sensitive low-frequency radio** observatories in the world.
- It is operated by the **National Centre for Radio Astrophysics (NCRA), Pune** which is a part of the **Tata Institute of Fundamental Research, Mumbai**.
- It consists of an **array of 30 antennas of 45 m diametres each**, spread out over a **30 km region about 80 km from Pune**, with **sophisticated electronics and computing for processing the data** from all the antennas.

#### Objective

- To **investigate a variety of radio astrophysical problems** ranging from our **nearby Solar system** to the **edge of the observable Universe**.

#### Significance

- As per the **NCRA**, this is **only the third such IEEE Milestone recognition** for an **Indian contribution**.
- The **previous two Indian contributions**, recognized by the **world's largest technical professional organization** recognized in 2012, are for the **pioneering work done by Sir JC Bose to demonstrate the generation and reception of radio waves in 1895**.
- The second is the **Nobel Prize-winning discovery** of the scattering of light named "**Raman effect**" by **Sir CV Raman in 1928**.

#### Related Information

##### About Electrical and Electronics Engineers

- The Institute of Electrical and Electronics Engineers is the **world' 's largest technical professional organization** dedicated to **advancing technology in all areas related to electrical and electronics engineering**.

- The **IEEE Milestones programme** honours **significant technological achievements and excellence for the benefit of humanity** found in **unique products, services, seminal papers, and patents**, which have a global or regional impact, in **all areas associated with IEEE**.

**Topic- GS Paper III– Science and Technology**

**Source- Hindustan Times**

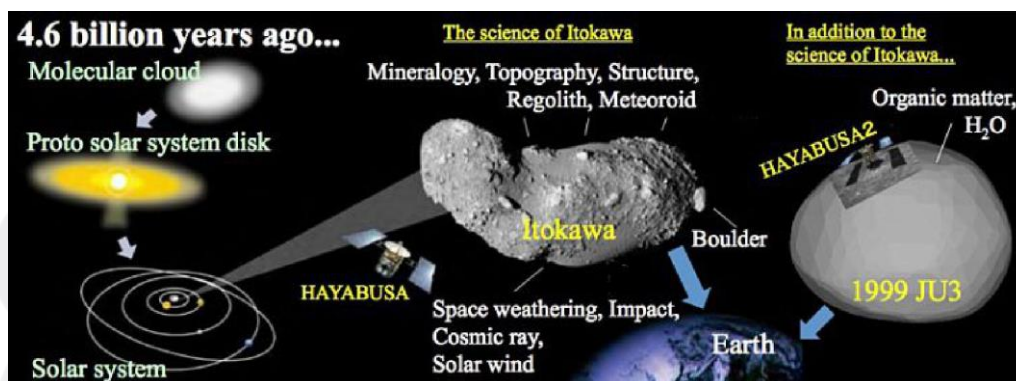
### Hayabusa2 mission

**Why in the news?**

- Recently, **six years after Japan’s Hayabusa2 mission** was launched, it is set to return to Earth on **December 6** carrying with its samples from the **one-kilometre wide Ryugu asteroid** that **orbits the Sun**.

**What is the Hayabusa2 mission?**

- The **Hayabasu2 mission** was **launched in December 2014** when the **spacecraft was sent on a six-year-long voyage** to study the **asteroid Ryugu** and **collect samples** that it is now **bringing back to the Earth**.



- The mission is similar to NASA’s **OSIRIS-REX mission** that brought back samples from **asteroid Bennu** late in **October 2020**.
- According to the **Japanese Aerospace Exploration Agency (JAXA)**, this is the **first time** that a **probe has visited a celestial body** that is **under 100 metres in diameter**.
- **Hayabasu2’s predecessor**, the **Hayabusa mission** brought back samples from the **asteroid Itokawa** in **2010**.

**What is an asteroid?**

- Asteroids are **rocky objects that orbit the Sun**, much **smaller than planets**. They are also called **minor planets**.
- According to **NASA**, there are **994,383 known asteroids**, the remnants from the **formation of the solar system** over **4.6 billion years ago**.

**Classified into three classes**

**Asteroids are divided into three classes.**

- First, those found in the **main asteroid belt** between **Mars and Jupiter**, which is **estimated to contain somewhere between 1.1-1.9 million asteroids**.

- The **second group is that of trojans**, which are **asteroids that share an orbit** with a **larger planet**. NASA reports the **presence of Jupiter, Neptune and Mars trojans**.
- In 2011, they reported an **Earth trojan** as well.
- The third classification is **Near-Earth Asteroids (NEA)**, which have orbits that pass close by the Earth.
- Those that **cross the Earth's orbit** are called **Earth-crossers**.
- More than **10,000 such asteroids** are known, out of which **over 1,400** are classified as **potentially hazardous asteroids (PHAs)**.

#### About Ryugu asteroid

- Ryugu is also **classified as potentially hazardous asteroids (PHAs)** and was **discovered in 1999**.
- Its name was given by the **Minor Planet Center in 2015**.
- It is about **300 million kilometres** from **Earth** and it took **Hayabusa2 over 42 months** to reach it.

#### Benefits of study Asteroids

- **Asteroids**, like comets, are **primitive bodies** that can be considered to be the **building blocks** of the **early solar system**.
- They hold a **record of the birth and initial evolution of the solar system**.
- **Larger planets** like **Earth** went through a **more complex evolution** over which the **pristine materials** were **melted and altered significantly**.
- Due to this **change**, the **materials found on large planets** do not hold **information** into their **early stages of formation**.
- **Comets and asteroids**, formed **early in the evolution of the Solar System**, retain a record of when, where and in what conditions they were formed.
- **Exploration of these primitive bodies** is essential in **gaining insight** into the **formation of the Solar System**.
- It also helps in tracking those asteroids that might **be potentially hazardous for our Earth**.

#### Topic- GS Paper III–Science and Technology

Source-Indian Express

#### Lab-grown meat

##### Why in the news?

- The **Singapore Food Agency (SFA)** has recently **approved the sale** of a **lab-grown meat product**.
- This is the **first-time cultured meat** has been **cleared for sale anywhere in the world**.

##### How is lab-grown or cultured meat different from plant-based meat?

- The latter is **made from plant sources** such as **soy or pea protein**, while **cultured meat is grown** directly from cells in a laboratory.



- Both have the **same objective** because it will **offer alternatives to traditional meat products** that **could feed a lot more people**, reduce the **threat of zoonotic diseases**, and **mitigate the environmental impact** of meat consumption.
- In terms of **cellular structure**, **cultured or cultivated meat** is the same as conventional meat — **except that cultured meat** does not come directly from animals.

### Benefits

- According to the **Good Food Institute (GFI)'s 2019 State of the Industry Report** on cultivated meats, **compared to conventional beef, cultivated beef** could reduce land use by **more than 95%**, climate change **emissions by 74-87%** and **nutrient pollution by 94%**.
- Since the **produced meat** is created in **clean facilities**, the risk of contamination by **pathogens such as salmonella** and **E. coli**, which may be present in **traditional slaughterhouses** and **meat-packing factories**, is **significantly reduced**.
- It does not **require antibiotics** either, unlike **animals raised for meat**, thereby **reducing the threat** posed to **public health** by **growing antibiotic resistance**.

**Topic- GS Paper III–Science and Technology**  
**Source-Indian Express**

### Cannabis not a dangerous narcotic: UN

#### Why in the news?

- Recently, the **United Nations (UN) Commission on Narcotic Drugs (CND)**, at **its 63rd session**, has taken **several decisions**, leading to changes in the way **cannabis (Marijuana or Hemp)** is **internationally regulated**, including its **reclassification** out of the most dangerous category of drugs.

#### Related Information

- **World Health Organization (WHO)** recommendations on **marijuana and its derivatives**, the **CND zeroed-in on the decision to remove cannabis** from **Schedule IV** of the **1961 Single Convention on Narcotic Drugs**.

- Now, both **cannabis and cannabis resin** will remain on **Schedule I**, which includes the **least dangerous category of substances**.

### Recent Development

- In 2018, the Parliament of **Canada had passed the Cannabis Act (or Bill C-45)**. This landmark **law legalizes recreational use of marijuana** (a **psychoactive drug** from the Cannabis plant intended for medical or recreational use) nationwide.
- It makes **Canada the first G7 country to legalize the drug's recreational use** and the second to have a **nationwide, legal marijuana market**, after **Uruguay** (permitted in December 2013).

### About the Commission on Narcotic Drugs (CND)

- The CND is the **central policy-making body** for the **UN drug control system**.
- It is **comprised of 53 UN member states** that are **elected by the Economic and Social Council (ECOSOC)**.
- It was **founded in 1946** and is **headquartered in Vienna**.

### Functions

- It is the **final decision maker on proposals by the World Health Organisation to schedule, de-schedule, or re-schedule** a substance.
- The Commission also **approves the budget and work plan of UNODC**, upon whom it also **relies for administrative and technical support**.

### India and Cannabis

- **India has voted with the majority** to remove cannabis and cannabis resin from the **list of most dangerous substances** in the Convention.

### Narcotic Drugs and Psychotropic Substances (NDPS) Act of 1985

- Under **India's Narcotic Drugs and Psychotropic Substances (NDPS) Act 1985**, the production, manufacture, possession, sale, purchase, transport, and **use of cannabis** is a **punishable offence**.
- The **Act was enacted in 1985**, which succeeded in the **Dangerous Drugs Act 1930**.
- The **Narcotics Control Bureau (NCB)** is vested with the **power to charge individuals in cases** related to the **illegal use and supply of narcotics**.



### About Cannabis plant

- **Most species of cannabis** are **dioecious plants** that can be **identified as either male or female**.

- The **unpollinated female plants** are called **hashish**.
- **Cannabis oil** (hashish oil) is a **concentrate of cannabinoids** – compounds which are **structurally similar to THC** – obtained by **solvent extraction of the crude plant material** or the resin.
- **According to the World Health Organisation (WHO)**, cannabis is a **generic term used to denote the several psychoactive preparations** of the plant *Cannabis sativa*.
- **The primary psychoactive constituent in cannabis is Delta-9 tetrahydrocannabinol (THC)**. The Mexican name '**marijuana**' is frequently used in **referring to cannabis leaves** or other **crude plant material** in many countries.

**Topic- GS Paper II +III–Health Issue +Sci-Tech**  
**Source-Indian Express**

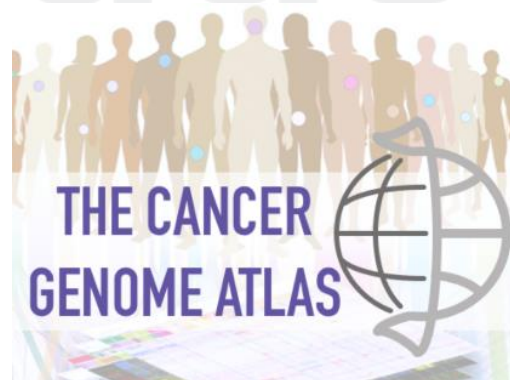
### 2nd Cancer Genome Atlas (TCGA)

**Why in the news?**

- The **Minister of Science and Technology** and **Vice President of Council for Scientific and Industrial Research (CSIR)** has virtually inaugurated the **2nd TCGA 2020 conference** in **New Delhi**.

**About Cancer Genome Atlas 2020 (TCGA)**

- It is a **landmark cancer genomics program** that **molecularly characterized over 20,000 primary cancer** and matched standard samples **spanning 33 cancer types**.
- It is a **joint effort between the US-National Cancer Institute** and the **National Human Genome Research Institute** began in **2006**.



- The **TCGA** has **generated over 2.5 petabytes of genomic, epigenomic, transcriptomic, and proteomic data**.
- The data, which has **already led to improvements in the ability to diagnose, treat, and prevent cancer**, will **remain publicly available** for anyone in the **research community** to use.

**Note:**

- The '**Indian Cancer Genomics Atlas (ICGA)**' has been initiated by a **consortium of key stakeholders** (led by CSIR) in **India** on the **same lines of Cancer Genome Atlas**.

## Related Information

### About Genome India Project

- The **Genome India Project**, a **collaboration of 20 institutions** including the **Indian Institute of Science** and some **IITs**, will enable new efficiencies in **medicine, agriculture, and the life sciences**.
- It **aims to ultimately build** a grid of the **Indian “reference genome”**, to fully understand the **type and nature of diseases** and traits that comprise the **diverse Indian population**.
- The **mega project** hopes to **form a grid after collecting 10,000 samples** in the **first phase from across India**, to arrive at a **representative Indian genome**.

Topic- GS Paper III–Science and Technology

Source-Indian Express

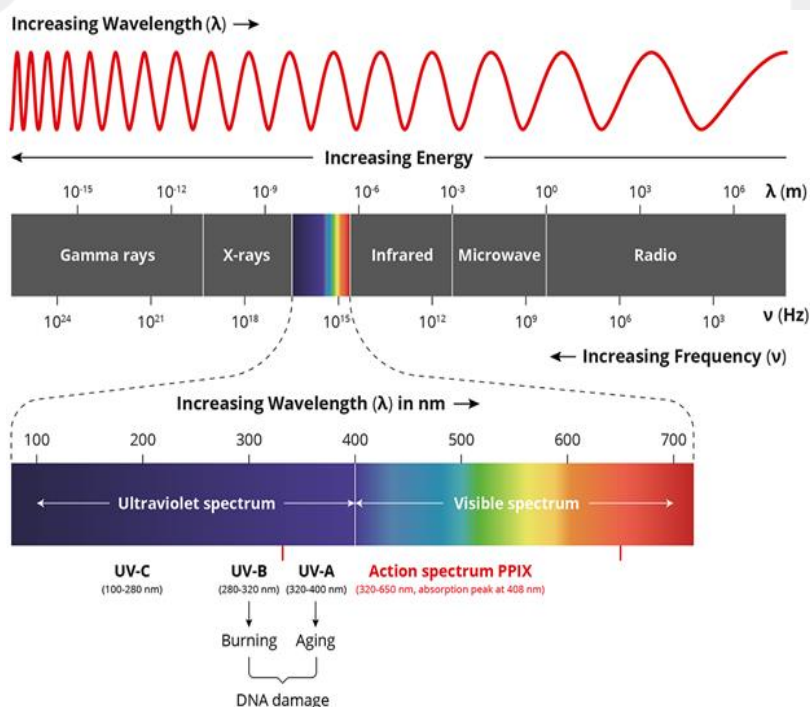
### Havana Syndrome

#### Why in the news?

- Recently, a **report by the National Academies of Sciences (NAS)** has found **directed microwave radiation** to be the **“plausible”** cause of the **Havana Syndrome**.

#### About ‘Havana syndrome’

- In late 2016, **US diplomats** and other **employees stationed in Havana** reported **feeling ill after hearing strange sounds** and experiencing odd **physical sensations** in their **hotel rooms or homes**.
- The symptoms included nausea, severe headaches, fatigue, dizziness, sleep problems, and hearing loss, which have since come to be known as **“Havana Syndrome”**.



### Highlights of the National Academies of Sciences report

- The **NAS report**, titled “**An assessment of illness in US government employees and their families at overseas embassies**”, by a **committee of 19 experts in medicine and other fields** examined four possibilities to explain the symptoms —
  - a. Infection
  - b. Chemicals
  - c. psychological factors
  - d. Microwave energy.
- The report claimed that the **microwave weapons** used beams of **high-frequency electromagnetic radiation** to heat the water in a human target’s **skin, causing pain and discomfort**.

### Related Information

#### About Electromagnetic Spectrum

- The electromagnetic spectrum is a **range of frequencies, wavelengths and photon energies** covering frequencies from **below 1 hertz to above 1025 Hz corresponding to wavelengths** which are a few kilometres to a fraction of the **size of an atomic nucleus** in the **spectrum of electromagnetic waves**.
- Generally, in **vacuum electromagnetic waves** tend to **travel at speeds** which are similar to that of light.

#### About Microwave Weapons

- “Microwave weapons” are **supposed to be a type of direct energy weapons**, which **aim highly focused energy** in the form of **sonic, laser, or microwaves**, at a target.
- People exposed to **high-intensity microwave pulses** have reported a **clicking or buzzing sound** as if seeming to be coming from within your head.
- It can have **both acute and long-term effects** — without **leaving signs of physical damage**.
- The concerns have been raised on whether they **can damage the eyes** or have a **carcinogenic impact** in the long term.

### Topic- GS Paper III–Science and Technology

Source- The Hindu

### PM-WANI

#### Why in the news?

- The Union Cabinet has recently given its approval for the proposal of DoT for setting up of Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs).
- It is aimed to provide public Wi-Fi service through Public Data Offices (PDOs) spread across length and breadth of the country to accelerate the proliferation of Broadband Internet services through Public Wi-Fi network in the country.
- There shall be no license fee for providing Broadband Internet through these public Wi-Fi networks.

#### Salient Features:

- This Public Wi-Fi Access Network Interface will be known as PM-WANI.



- PM-WANI eco-system will be operated by different players as described herein under:
- **Public Data Office (PDO):** It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.
- **Public Data Office Aggregator (PDOA):** It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.
- **App Provider:** It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.
- **Central Registry:** It will maintain the details of App Providers, PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

### Objectives

- While no registration would be required for PDOs, PDOAs and App Providers will get themselves registered with DoT through the online registration portal.
- The proposal will promote the growth of Public Wi-Fi Networks in the country and, in turn, will help in the proliferation of Broadband Internet, enhancement of income and employment and empowerment of people.

### Topic- GS Paper III– Science and technology

Source- The Hindu

### Quantum Key Distribution

#### Why in the news?

- Recently, the Defence Research & Development Organisation (DRDO) undertook the Project for development of Quantum Key Distribution (QKD) for the Quantum Communication between two DRDO Laboratories.

#### About Quantum Key Distribution

- Quantum key distribution utilizes the unique properties of quantum mechanical systems to generate and distribute cryptographic keying material using special-purpose technology.
- Quantum cryptography uses the same physics principles and similar technology to communicate over a dedicated communications link.
- Published theories suggest that physics allows QKD or QC to detect the presence of an eavesdropper, a feature not provided in standard cryptography.
- **The technology has been developed Centre for Artificial Intelligence and Robotics (CAIR), Bengaluru, and DRDO Young Scientists' Laboratory – Quantum Technology (DYSL-QT), Mumbai.**
- Quantum Communication using time-bin Quantum Key Distribution (QKD) Scheme was performed under realistic conditions.
- The setup also demonstrated the validation of detection of a third party trying to gain knowledge of the communication.
- Quantum based security against eavesdropping was validated for the deployed system at over 12kms range and 10dB attenuation over fibre optic channel.
- Quantum cryptography is a technology that uses quantum physics to secure the distribution of symmetric encryption keys.

### **Importance of Quantum Key Distribution (QKD)**

- Quantum based communication offers a robust solution to sharing the keys securely.
- The work being done at DRDO will be used to enable start-ups and SMEs in the domain of quantum information technologies.
- It will also serve to define standards and crypto policies that can leverage QKD system in a unified Cipher Policy Committee (CPC) framework for more secure and pragmatic key management for current and future military cryptographic systems.

### **Topic- GS Paper III– Science and Technology**

**Source- PIB**

### **Organochlorines may be behind Eluru mystery illness**

#### **Why in the news?**

- Among tentative reasons behind a mystery disease that has left 450 patients in Eluru, Andhra Pradesh with seizures, nausea, dizziness and headaches and death of one person, the role of organochlorines (OCs) is the most possible.

#### **What are organochlorines?**

- Organochlorines (OC) are a group of chlorinated compounds that belong to the class of persistent organic pollutants (POPs) with high persistence in the environment.
- They are widely used as pesticides.
- OC insecticides were earlier used to control malaria and typhus; they were later banned in most countries.
- They are relatively cheaper; as a result, Dichlorodiphenyltrichloroethane (DDT), hexachlorocyclohexane (HCH), aldrin and dieldrin are among the most widely used pesticides in developing countries of Asia.

#### **How can these pesticides affect human health?**

- Exposure to organochlorine pesticides over a short period may result in convulsions, headache, dizziness, nausea, vomiting, tremors, confusion, muscle weakness, slurred speech, salivation and sweating.
- Long-term exposure to organochlorine pesticides may damage the liver, kidney, central nervous system, thyroid and bladder.
- Many such pesticides have been linked to elevated rates of liver or kidney cancer in animals.
- There is also evidence indicating that organochlorine pesticides may cause cancer in humans.

#### **Related Information**

##### **About Persistent Organic Pollutants (POPs)**

- The United Nations Environment Programme (UNEP) defines POPs as chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment.

##### **Convention on POPs**

##### **Stockholm Convention on POPs**

- It is a global treaty to protect human health and environment from POPs, which are identified chemical substances that persist in the environment, bio-

accumulate in living organisms, adversely affect human health/ environment and have the property of long-range environmental transport (LRET).

- **It was signed in 2001 and effective from 2004.**
- The Convention aims to eliminate or restrict the production and use of persistent organic pollutants (POPs).
- **It is a legally binding** convention in which **Article 16 of the Convention** requires that effectiveness of the measures adopted by the Convention is evaluated in regular intervals.

**The Convention listed twelve distinct chemicals in three categories:**

- **Pesticides:** Aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
- **Industrial chemicals:** Hexachlorobenzene, polychlorinated biphenyls (PCBs); and
- **By-products:** Hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

**Other Conventions dealing with POPs**

- Convention on Long-Range Transboundary Air Pollutants (LRTAP)
- Protocol on Persistent Organic Pollutants (POPs).

**India and Stockholm Convention**

- India had ratified the Stockholm Convention on January 13, 2006, as per Article 25(4), which enabled it to keep itself in a default "opt-out" position such that amendments in various Annexes of the Convention cannot be enforced on it unless an instrument of ratification/ acceptance/ approval or accession is explicitly deposited with UN depositary.

**Recent Development**

- Recently, the Union Cabinet has approved the ratification of seven more chemicals listed under the Stockholm Convention on Persistent Organic Pollutants (POPs).
- The regulation, among other things, prohibited the manufacture, trade, use, import and export seven chemicals namely.
  - (i) Chlordecone
  - (ii) Hexabromobiphenyl
  - (iii) Hexabromodiphenyl ether and Heptabromodiphenylether (Commercial octa-BDE)
  - (iv) Tetrabromodiphenyl ether and Pentabromodiphenyl ether (Commercial Penta-BDE)
  - (v) Pentachlorobenzene
  - (vi) Hexabromocyclododecane
  - (vii) Hexachlorobutadiene

**Topic- GS Paper III– Science and Technology**

**Source- The Hindu**

**NB-IoT (Narrow Band-Internet of Things)**

**Why in the news?**

- Recently, **BSNL**, in partnership with **Skylotech India**, announced a breakthrough in **satellite-based NB-IoT** (Narrow Band-Internet of Things).



### About Narrow Band-Internet of Things

- It is the **worlds' first, satellite-based narrowband-IoT network in India** which is **indigenously developed by Skylo**.
- It will connect with **BSNLs satellite- ground infrastructure** and provide **PAN-India coverage**, including **Indian seas**.

### Significance

- This **technology** has already been **tested successfully** include, **Indian Railways, fishing vessels, and enabling connected vehicles** across India.
- This technology also supports the **Department of Telecom and NITI Aayog's plan** of bringing **indigenous IoT connectivity to India's core sectors**.
- A small, smart, **incredibly rugged box**, the **Skylo' User Terminal'** interfaces with sensors and transmits data to the **Skylo Network** and into people's hands.
- The accompanying **Data Platform** provides an **immersive, visual, experience for industry-specific applications** on mobile or desktop.
- It gives users the **ability to take immediate and appropriate action**, no matter where they are.
- This **new digital machine connectivity** layer will serve as a **complement to smartphone-centric mobile & Wi-Fi networks** and covers **India's full geography** to bring online **new applications for the first time**.

### Topic- GS Paper III–Science and Technology

Source- Economics Times

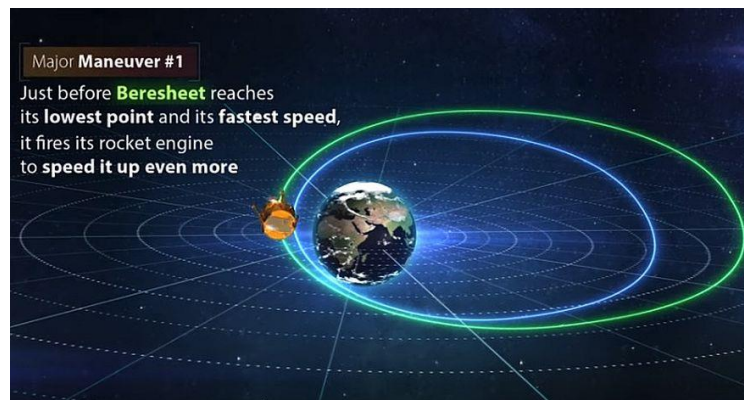
### Beresheet 2

#### Why in the news?

- Recently, **Israel** has announced **its plan to send a second spacecraft, i.e., Beresheet 2 to the Moon**, following the **crash landing** of the original **Beresheet 1 probe in 2019**.

#### Background

- **Beresheet 1** was **developed in response** to the **Google Lunar X Prize competition** which **challenged non-governmental groups** to land a **spacecraft on the Moon**.
- It has been **built by Israeli NGO SpaceIL** and **state-owned Israel Aerospace Industries**.
- **Beresheet** was **Israel's first lunar mission** and the **first attempt by a private company** to land on the Moon.



### About Beresheet 2

- It is a **collaborative effort** of **Israeli non-profit SpaceIL**, **Israel Aerospace Industries** and the **Israeli Space Agency**.
- The **mission is scheduled to be launched in 2024**.

### Significance

- **Israel could become the fourth nation** to land a **spacecraft on the Moon** after the **USA**, the **former Soviet Union** and **China**.

### Related Information

#### Other Missions to Moon

- **India** has planned a **new moon mission** named **Chandrayaan-3** which is likely to be **launched in early 2021**.
- The **United Arab Emirates (UAE)** has **decided to send an unmanned spacecraft to the Moon in 2024**.
- **Artemis** is a **crewed spaceflight program** of the **National Aeronautics and Space Administration (NASA)** that has the goal of landing "**the first woman and the next man**" on the Moon, specifically at the **lunar south pole region by 2024**.

Topic- GS Paper III–Science and Technology

Source- First Spot

### Molnupiravir drug

#### Why in the news?

- Recently, a new drug called **Molnupiravir** has been shown to **stop the transmission of SARS-CoV-2 in 24 hours**.



#### About Molnupiravir drug

- Molnupiravir is being **developed by the biotechnology firm Ridgeback Biotherapeutics** in collaboration with **pharmaceutical firm Merck**.

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- It is an **experimental antiviral drug** which is **orally active** and was developed for the **treatment of influenza**.
- This is the **first demonstration** of an **orally available drug** to rapidly block **SARS-CoV-2 transmission**, and it can be a **game-changer**.

**Topic- GS Paper III–Science and Technology**

**Source- Indian Express**

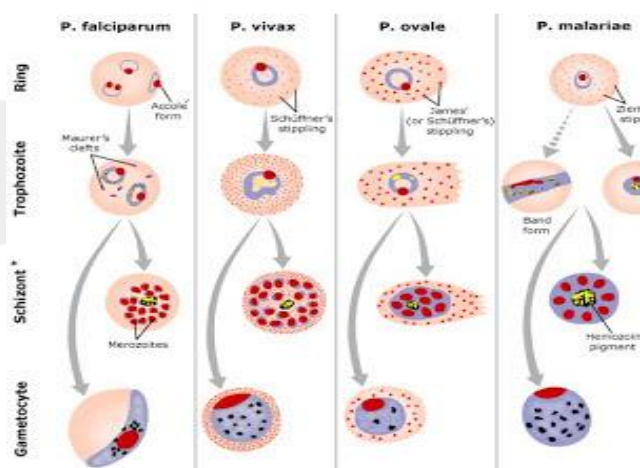
### Plasmodium ovale

#### Why in the news?

- Recently, a **new type of Malaria parasite** called *Plasmodium ovale* has been identified in a **Soldier in Kerala**, which is **not a very common type** of Malaria in India.

#### About Malaria

- It is **caused by the bite** of the **female Anopheles mosquito** if the mosquito itself is **infected with a malarial parasite**.
- There are **five kinds of malarial parasites** – *Plasmodium falciparum*, *Plasmodium vivax* (the commonest ones), *Plasmodium malariae*, *Plasmodium ovale* and *Plasmodium knowlesi*.



#### About Plasmodium ovale

- *Plasmodium ovale* is very similar to *Plasmodium vivax*, which is not a killer form.

#### Symptoms

- Symptoms include **fever for 48 hours, headache and nausea**, and the **treatment modality** is the same as it is for a **person infected** with *Plasmodium vivax*.

#### Note:

- *Plasmodium ovale* malaria is **endemic to tropical Western Africa**.

#### Related Information

##### India's effort against Malaria

- In **1953, Government** launched the **National Malaria Control Program** with the focus on **indoor residual spraying** of

**Dichlorodiphenyltrichloroethane (DDT)**, which helped to reduce the annual **incidence of Malaria dramatically**.

- The **National Malaria Eradication Program** was **launched in 1958**, which **further reduced** the number of **malaria cases** and **eliminated deaths from the disease**.
- After **1967**, **mosquito's resistance to insecticides and anti-malarial drugs** led to a **resurgence of the disease** countrywide.
- To **combat Malaria in high transmission areas** of the country, and **enhanced Malaria Control Project** was launched with the **World Bank's help in 1997**.
- In **2003**, **malaria control** was **integrated with other vector-borne diseases** under the **National Vector Borne Disease Control Programme (NVBDCP)**.
- In **2005**, the **Government** also launched the **National Rural Health Mission (NRHM)** to control **vector-borne diseases**, including **Malaria**.
- In **2017**, **India** launched its **5-year National Strategic Plan (2017-2022)** for **Malaria Elimination** that **shifted focus -from Malaria control to elimination** and provided a **roadmap to end Malaria in 571 districts** out of India's 678 districts.
- The **Government of India** has also **developed a National Framework for Malaria Elimination (2016-2030)**.
- **Indian Council of Medical Research (ICMR)** has recently **established 'Malaria Elimination Research Alliance-India (MERA-India)** which is a **conglomeration of partners working on malaria control**.

Topic- GS Paper II–Science and Technology

Source-The Hindu + Worldbank.gov.in

### VigyanYatra

Why in the news?

- Recently, the **Indian Association of the Cultivation of Science (IACS), Kolkata** has **virtually organized the VigyanYatra**.



About the Vigyan Yatra

- It is a **promotional activity undertaken** as part of the **India International Science Festival (IISF)**.

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- It aims to promote scientific temper and inculcate the culture of science among the masses.
- It also helps to ignite the minds of the youngsters because science exhibition mobile vans are viewed by all local school/university students that create interest in science and generate awareness about the IISF.

### Related Information

#### About the International Science Festival

- It is a festival launched in 2015 to promote Science and Technology and demonstrate how science could lead India towards a developed nation within a short span of time.
- The festival has been organized every year by the Ministry of Science & Technology and Ministry of Earth Sciences in association with Vijnana Bharati (VIBHA).
- The theme for International Science Festival 2020 is Science for Self-Reliant India and Global Welfare”.

Topic- GS Paper III– Science and Technology

Source- PIB

### E20 Fuel

#### Why in the news?

- Recently, the Ministry of Road Transport and Highways has published a draft notification and invited comments from the public for the adoption of E20 Fuel to promote green fuel like ethanol.



#### What is E20 Fuel?

- It is a blend of 20% of ethanol with gasoline, as an automotive fuel and for the adoption of mass emission standards for this fuel.

#### Significance of E20 Fuel

- It is an automobile fuel which is capable of reducing vehicular emissions such as carbon dioxide, hydrocarbons, etc.
- It will help reduce the oil import bill, thereby saving foreign exchange and boosting energy security.



## Related Information

### About Ethanol Blending Policy in India

- Ethanol is a biofuel and a common by-product of biomass left by agricultural feedstock such as corn, sugarcane, hemp, potato, etc.
- The government has set targets of 10 per cent bioethanol blending of petrol by 2022 and to raise it to 20 per cent by 2030.
- The ethanol blending programmed help to curb carbon emissions and reduce India's dependence on imported crude oil.

### Generations of Biofuels

#### a. First Generation Biofuel

- They are produced from food crops containing sugar and starch.
- These fuels only use a portion of the energy potentially available in the biomass.

#### b. Second Generation Biofuel

- These are produced from marginal croplands unsuitable for food production or non-food crops such as wood, organic waste, food crop waste and specific biomass crops. For example- Jatropha
- It is also aimed at being cost-competitive concerning existing fossil fuels.

#### c. Third Generation Biofuels

- It uses specially engineered energy crops such as algae.
- It can be made anywhere where CO<sub>2</sub> and water are found in sufficient concentration.
- Algae offer the advantage of being an entirely renewable feedstock.

#### d. Fourth Generation Biofuels

- They are aimed at not only producing sustainable energy but also a way of capturing and storing CO<sub>2</sub>.
- This process differs from second and third-generation production at all stages of production as the carbon dioxide is simultaneously captured.

### Topic- GS Paper III–Development in Science and Technology

#### Source-Indian Express

## The Great conjunction of Saturn and Jupiter

### Why in the news?

- Recently, after nearly 400 years, Saturn and Jupiter will be brought closest in the night sky by an astronomical event called the “great conjunction” and popularly referred to as the “Christmas Star”.



### About the Conjunction

- 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.

## Great Conjunction

- Astronomers use the term great conjunction to describe meetings of the two most giant worlds in the solar system, Jupiter and Saturn.
- The Great Conjunction happens once in about 20 years because of the time each of the planets takes to orbit around the Sun.

## Time is taken to orbit around the Sun

- Jupiter takes roughly 12 years to complete one lap around the Sun, and Saturn takes 30 years.

## Note:

- In June 2005 for instance, because of the “spectacular” conjunction, Mercury, Venus and Saturn appeared so close together in the sky that a thumb could cover the patch of sky where the three planets were.

## Topic- GS Paper III–Science and Technology

Source- Indian Express

## SolarWinds Hack

### Why in the news?

- Recently, a new cyber-attack called 'SolarWinds Hack' was discovered which in the United States, has emerged as one of the biggest ever targeted against the US government.



### About SolarWinds Hack

- It is a highly sophisticated threat actor who is considered as a state-sponsored attack.
- A nation attacked with top-tier offensive capabilities, and the attacker primarily sought information related to certain government customers.
- The cyberattack, which was named Campaign UNC2452, was not limited to the company but had targeted various public and private organizations around the world.

### Nature of Solar Winds Hack

- It is being called a 'Supply Chain' attack because instead of directly attacking the federal government or a private organization's network, the hackers target a third-party vendor, which supplies software to them.
- According to FireEye, the hackers gained 'access to victims via trojanized updates to SolarWinds' Orion IT monitoring and management software'.
- Once installed, the malware gave a backdoor entry to the hackers to the systems and networks of SolarWinds' customers.

Topic- GS Paper III–Science and Technology, Source-Indian Express

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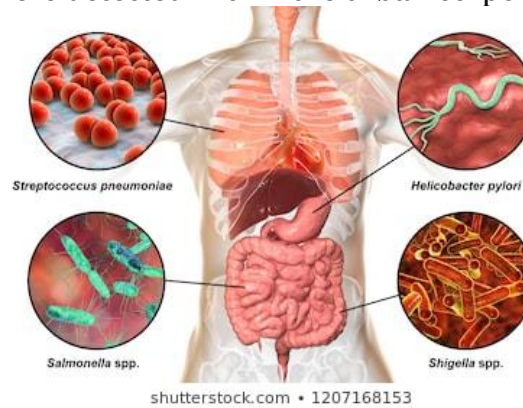
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## Shigella

### Why in the news?

- Health officials in Kozhikode district of Kerala convened emergency meetings. They kicked in preventive measures last week after six cases of Shigella infection cases were detected within the urban corporation limits.



### What is shigella infection?

- Shigellosis, or Shigella infection, is a contagious intestinal infection caused by a genus of bacteria known as shigella.

### Prime Pathogen

- The bacteria is one of the prime pathogens responsible for causing diarrhoea, fluctuating between moderate and severe symptoms, especially in children in African and South Asian regions.

### Symptoms

- The common symptoms are diarrhoea (often bloody and painful), stomach pain, fever, nausea and vomiting.
- There have been cases too where people don't experience any signs of the bacterial infection.

### How does it spread?

- The infection is known to spread person-to-person when the bacteria is swallowed accidentally.
- The disease has been extended through contaminated food and water is the most common form of transmission across the world.

### Prevention

- It's essential to wash hands with soap, especially after dealing with a child's diaper and before preparing/eating food.

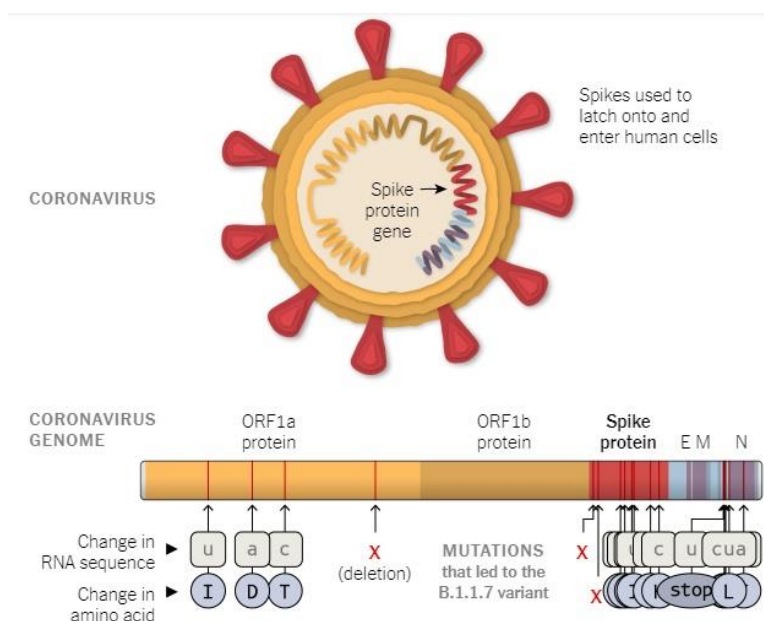
### Topic- GS Paper III– Science and Technology

### Source- The Hindu

## B.1.1.7 LINEAGE

### Why in the news?

- **India suspended all flights** from and to the **UK until December 31**, amid concerns about a **new variant of SARS-CoV-2** that is “**spreading & growing rapidly**” there.



### About the Variant

- The **new variant of SARS-CoV-2** is also referred to as VUI (**V**ariant **u**nder **I**nvestigation) 202012/01, or the **B.1.1.7 lineage**. The variant was identified by **COVID-19 Genomics UK (COG-UK)**.
- The variant is the **result of multiple mutations** in the **spike protein of the novel coronavirus SARS-CoV-2** and mutations in **other genomic regions of the RNA virus**.
- According to the **preliminary analysis**, the mutant is **more transmissible** than the **previously circulating variant**.
- The COG-UK had **identified these mutations** as “**N501Y**”.
- It is an **area of spike protein** where the **virus binds to the human cell**.

### Transmissibility and Severity

- The **new variant transmits** more quickly than the other strains.
- The new variant can **potentially ramp up the reproduction number of the virus by 0.93**.
- The mutation in the **spike protein might change** how the **virus interacts with the human cells**.
- This is **because the COVID-19 enters** the human body through these spike proteins.

### Other Mutations

#### D614G

- The **D614G was earlier the dominant strain of COVID-19** as it spread very quickly compared to the other strains.

#### 20A

- It is another **popular strain originated among Spanish farm workers**.

**Topic- GS Paper III–Science and Technology**

**Source-Indian Express**

## Meteorological Centre inaugurated at Leh

### Why in the news?

- **Dr Harsh Vardhan, the Union Minister of Earth Sciences, Science & Technology and Health & Family Welfare** inaugurated **Meteorological (Met) Centre at Leh(Ladakh)** through video conferencing at an event in **Ministry of Earth Sciences, New Delhi.**



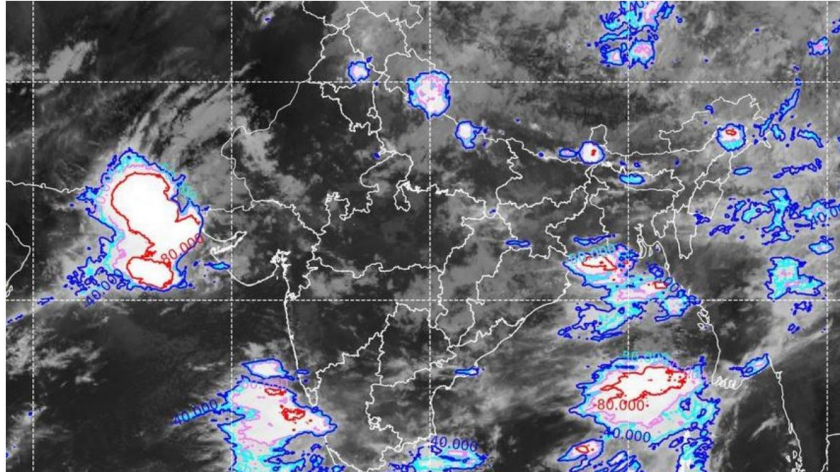
### Why Leh has been chosen for the Meteorological centre?

- Ladakh region is known for its **unique topography, culture, food, climate, or strategic importance** for national security.
- Lofty mountains with **high slopes and no vegetation** and lot of **loose soil and debris** which makes the Ladakh region **vulnerable to various kinds of natural hazards** such as **Cloud burst (of 2010), Flash Floods, Avalanches and Glacial Lake Outbursts**, etc.
- To avert losses due to such weather events in future, the Government felt the need to establish a **State of the Art Meteorological (Met) Centre at Leh.**
- It is also aimed to **strengthen weather related Early Warning System in Ladakh.**
- Localised weather information is **highly crucial for micro-climatic forecasting** keeping in view the **climatic variety** of the **Ladakh region.**

### Major Highlights

- The Met Center will be a **world class facility for high altitude meteorology** and will cater to the **various kinds of weather and climate needs** of the people and the administration of Ladakh
- With a **height of 3500 m** the centre at **Leh is the highest meteorological centre** in India.
- The centre will provide a **range of weather forecast services:**
  - short (3 days)
  - medium (12 days)
  - extended (1 month)
- It will provide the updates on a daily basis for both the districts (Leh and Kargil).

- It will provide forecast for important tourist places like Nubra, Changthang, Pangong Lake, Zaskar, Kargil, Drass, Dha-Baima (Aryan valley), Khalsi, etc.
- Some of the important services to be made available are **Highway Forecast, Forecast for Mountaineering, Trekking, agriculture, flash flood warning, low and high temperatures** among others.

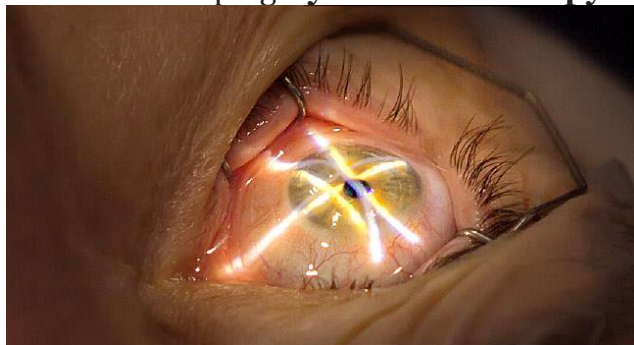


**Topic: GS Paper III (National Security and Disaster Management)**  
**Source: PIB**

### Eye Care Therapy developed at BARC, Mumbai

Why in the news?

- **Dr. Jitendra Singh**, the Union Minister of State (Independent Charge) Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, has lauded the **Bhabha Atomic Research Centre (BARC) Mumbai** for developing **Eye Cancer therapy** recently.



### Major Highlights

- The therapy is in the form of the **first indigenous Ruthenium 106 Plaque** for treatment of **Ocular Tumours**.
- The **handling of plaque is very convenient** for the Surgeon and it has been acknowledged to be at **par with the international standards**.
- In **September 2020** that it was used for the **first time for the treatment of a patient with Choroidal Hemangioma** and the results proved to be satisfactory.

- **Plaque Brachytherapy for Eye Cancer patients** is also one such latest initiative in the area of **medical management**. This treatment modality has **provided a simpler and cost-effective option** for the patients



### Other Contributions of BARC

- The Bhabha Atomic Research Centre (BARC) is developing Bullet Proof Jackets for security personnel.
- In the Agricultural sector, BARC is working on radiation techniques to extend shelf life of vegetable and food products. It is also being applied in some cases.

**Topic: General Studies Paper II + III (Science and Tech + Health Issues)**

**Source: PIB**

### Digital Ocean

#### Why in the news?

- **Union Minister Earth Sciences, Dr. Harsh Vardhan** has recently **launched a web-based application** named **“Digital Ocean”**.



#### About the Digital Ocean

- It is a **first of its kind digital platform** for **ocean data management** developed by **Indian National Centre for Ocean Information Services (INCOIS)**.
- It has been **developed to share information** on marine data and forecast services.
- It also facilitates an **online interactive web-based environment** for **data integration, 3D and 4D** (3D in space with time animation) data visualization, data analysis to **assess the evolution of oceanographic features**, data fusion and multi-format download of disparate data from

multiple sources viz., in-situ, **remote sensing, and model data**, all of which is **rendered on a georeferenced 3D Ocean**.

- It will also **help to share knowledge** about the **ocean with a wide range of users including research institutions**, operational agencies, strategic users, academic community, **maritime industry**, and policy makers.
- Digital Ocean also provides free access to information to the general public and the common man.

### **Significance**

- It will **play a central role in sustainable management** of our oceans and expanding our '**Blue Economy**' initiatives.
- Further, the **Digital Ocean** will be **promoted as a platform for capacity building on Ocean Data Management** for all **Indian Ocean Rim countries**.

### **Related Information**

#### **About Indian National Centre for Ocean Information Services (INCOIS)**

- It is an **autonomous organization** under the **Ministry of Earth Sciences (MoES)**.
- It is in **Hyderabad** and was established in **1999**.
- It is a **unit of the Earth System Science Organization (ESSO)**.

### **Mandate**

- It **provides ocean information and advisory services to various stakeholders** including **data based on oceanographic research, advisory services** such as **fishing zone advisories, ocean state forecast, high wave alerts, tsunami early warnings, storm surge and oil-spill**.

### **Note:**

- **INCOIS** is a **permanent member of the Indian delegation to Intergovernmental Oceanographic Commission of UNESCO and a founding member of the Indian Ocean Global Ocean Observing System (IOGOOS) and the Partnership for Observing the Oceans (POGO)**.

**Topic- GS Paper III - Science and Technology**

**Source- PIB**



## Security Matters

### Operation Trident

#### Why in the news?

- Recently, **India** celebrates **December 4** as **Navy Day** to commemorate **Operation Trident**.

#### About Operation Trident

- Operation Trident was an **offensive operation launched by the Indian Navy on Pakistan's port city of Karachi** during the **Indo-Pakistani War of 1971**.
- Under Operation Trident, the **Indian Navy sank three vessels** near the **Pakistani port city of Karachi**.
- The **stars of the mission** were the **then-recently acquired Soviet Osa missile boats**, fitted with **4 SS-N-2 (P-15) Styx missiles**.



- Operation Trident saw the **first use of anti-ship missiles in combat in the region** as well as the **first sinking of naval vessels** during hostilities in the area **since World War II**.

#### Note:

- The Navy **plans** to celebrate 2021 as '**Swarnim Vijay Varsh**' as part of **commemorating the 50th anniversary** of the victory in the 1971 war.

Topic- GS Paper III–Defence

Source-PIB

### Project 17A Ship - 'Himgiri'

#### Why in the news?

- '**Himgiri**', the first of the **three Project 17A ships** being built at **M/s Garden Reach Shipbuilders and Engineers Limited (GRSE)**, Kolkata.
- The ship has taken **its name and crest of the second Frigate** of the **Leander Class of ships**, which incidentally was **launched 50 years ago** in 1970.

#### About the Project 17A program

- Under the Project 17A program, a **total of seven ships**, four at **Mazagon Dock Shipbuilders Limited (MDL)** and **three ships** at **GRSE** are being built.
- **P17A ships** have been **indigenously designed** by **Directorate of Naval Design (Surface Ship Design Group)**.



### Features of the ships

- The **P17A class frigates** are being built using **indigenously developed steel** and fitted with **weapons and sensors** along with the **Integrated Platform Management System**. These ships have **stealth features**.
- The **main weapon and sensor suite of P-17A ships** indicated are **BrahMos SSM, LRSAM** (Forward & Aft configuration) with **MF STAR radar, indigenous Sonar, and Triple tube Heavy Torpedo launcher**.
- P17A ships are the **first gas turbine propulsion** and **largest combat platforms** ever built at **GRSE**.

### Related Information

#### About Radar MFSTAR

- The **Radar MFSTAR** (for Multi-Function Surveillance Track and missile guidance Radar) **Frigate version** shall bring in long-distance target detection and **tracking ability for both, Air and Surface targets**.
- The MFSTAR is also **capable of undertaking Target Designation of hostile targets** for timely weapon engagement and achieve optimal utilization of Fleet resources.
- This unique **MFSTAR feature** makes an **anti-missile countermeasure** (as part of self-defence tactics) **highly effective**, especially against the sea-skimming missile threat to the Ship.

### Topic- GS Paper III–Defence

#### Source-The Hindu

### 35th Edition of India - Indonesia Coordinated Patrol

#### Why in the news?

- The 35th edition of India-Indonesia Coordinated Patrol (IND-INDO CORPAT) between the Indian Navy and the Indonesian Navy has been recently conducted.

#### About India - Indonesia Coordinated Patrol

- It is a biannual coordinated patrol exercise along the International Maritime Boundary Line (IMBL).
- India was represented by Indian Naval Ship (INS) Kulish which is an indigenously built missile corvette along with P8I Maritime Patrol Aircraft (MPA).



- The Indonesian Navy is represented by Indonesian Naval Ship KRI Cut Nyak Dien, a Kapitan Pattimura (Parchim I) class corvette and an MPA of the Indonesian Navy.
- The CORPAT assisted in improving the interoperability between the two navies and contributed to strengthening Navy to Navy cooperation.

### Background

- CORPAT is an Indian Navy tactical procedure on behalf of Indian “Wannabe” diplomatic ambitions rather than a Multi-National Treaty.
- CORPAT has been carried out with Bangladesh, Indonesia, and Thailand.
- It is a naval procedure that India carries out with any other country that is willing in an attempt at showing the flag as a diplomatic manoeuvre.

**Topic- GS Paper III–Defence**

**Source-The Hindu**

### Three New Systems for Indian Armed Forces

#### Why in the news?

- Defence Minister has recently handed over three indigenously developed systems to Army, Navy and Air Force at a function held in Defence Research and Development Organisation (DRDO) Bhawan.



**These three new systems are-**

- a. Border Surveillance System
- b. Indian Maritime Situational Awareness System (IMSAS)
- c. ASTRA Missile

### About Border Surveillance System

- It is an “all-weather” electronic surveillance system successfully designed and developed by Instruments Research & Development Establishment (IRDE), Dehradun.
- It facilitates monitoring and surveillance by automatically detecting the intrusions in harsh high-altitude sub-zero temperature areas with remote operation capability.
- It consists of BattleField Surveillance Radar (BFSR), and Electro-Optic (EO) payload mounted on a pan-tilt unit kept at the observation tower.
- The system has been deployed **at the Ladakh border area for day and night surveillance.**
- The system is being produced by Bharat Electronics Limited (BEL), Machlipatnam.

### About Indian Maritime Situational Awareness System (IMSAS)

- It is a state-of-the-art, fully indigenous, a high-performance intelligent software system that provides Global Maritime situational picture, marine planning tools and Analytical capabilities to Indian Navy.
- The system offers Maritime Operational Picture from Naval HQ to each ship in the sea to enable Naval Command and control (C2).
- The Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru and Indian Navy has jointly conceptualised and developed the product and with the BEL.

### About ASTRA Missile

- It is the indigenously developed first Beyond Visual Range (BVR) Air-to-Air Missile.
- It can be launched from Sukhoi-30, Light Combat Aircraft (LCA), Mig-29 and Mig-29K.
- It has been developed by Defence Research & Development Laboratory (DRDL) and production by Bharat Dynamics Limited (BDL) Hyderabad.

### Topic- GS Paper III–Defence

#### Source-Indian Express

### Super Hornet fighter jets

#### Why in the news?

- Recently, **Boeing** has announced the **successful demonstration** of the compatibility of its **F/A-18 Super Hornet fighter jets** with the **Indian Navy’s aircraft carriers** as part of its **pitch for the Navy’s fighter procurement.**

#### About Super Hornet fighter

- It is the **world’s most lethal, advanced, combat-proven, multi-role frontline fighter-jet.**
- **U.S. Aerospace Company, Boeing** has developed it.

#### Features

- **Cutting-edge Technologies:** Enhanced computing and data link, **advanced cockpit system, signature improvements.**
- **Lifecycle Affordability:** Lowest cost per flight hour among all **U.S. tactical fighters in production.**



- **Multi-role Superiority:** Capable of tactical strikes, **air reconnaissance**, **air defence**, and **maritime roles**.

**Topic- GS Paper III–Defence**

**Source-The Hindu**

### Medium Range Surface to Air Missile (MRSAM)

**Why in the news?**

- The **Defence Research and Development Organisation (DRDO)** has recently launched the **army version of Medium Range Surface to Air Missile**.



**About Medium Range Surface to Air Missile**

- The **army version of MRSAM** is a **surface to Air Missile** developed jointly by **India's Defence Research and Development Organization (DRDO)** in collaboration with **Israel Aerospace Industries (IAI)** to use the **Indian Army**.

**Combat Capability**

- **MRSAM Army weapon system** comprises of **Command post**, **Multi-Function Radar** and **Mobile Launcher system**. The MRSAM missile is equipped with an **advanced active radar radio frequency (RF) seeker**, advanced **rotating phased array radar** and a **bidirectional data link**.
- The RF seeker, **located in the missile front section**, is used to **detect moving targets** in **all weather conditions**.

- The **MRSAM surface-to-air missile** is powered by a **dual-pulse solid propulsion system** developed by DRDO.
- The **propulsion system, coupled with a thrust vector control system, allows the missile** to move at a **maximum speed of Mach 2**.
- The weapon can **engage multiple targets** simultaneously at **ranges of 70km**.

**Topic- GS Paper III– Defence**

**Source- PIB**

### Shaheen-IX Exercise

**Why in the news?**

- Recently, **China** has justified its **ongoing joint air exercise "Shaheen-IX"** with **Pakistan**, even though it had **expressed apprehensions** about **India's "Malabar exercise"** last month.



**About Shaheen-IX Exercise**

- It is a **bilateral exercise** held between the **Pakistan Air Force and the People's Liberation Army, Air Force**.
- Shaheen-IX is the **ninth in the series of Joint Air Exercises** conducted each year between the **Pakistan Air Force and the People's Liberation Army Air Force** in **both countries** on an **alternate basis**.

The first such drill was held in Pakistan in March 2011. **Related Information Shaheen-II**

- In **2019**, **Pakistan** had **test-fired nuclear-capable surface-to-surface ballistic missile Shaheen-II** successfully in the **Arabian Sea**.

**About Shaheen-II Missile**

- It is **land-based supersonic surface-to-surface medium-range guided ballistic missile**.
- It is named after a **falcon that lives in the mountains of Pakistan**.
- It is suspected to be **derivative of Chinese M-18 ballistic missile**.
- It uses a **two-stage solid-fuel rocket motor**. It can carry both **nuclear as well as conventional warheads**.
- It has a **range of hitting targets as far as 1,500 kilometres** away (major Indian cities come under its range).

**Note:**

- **India** recently hosted the **Malabar 2020** naval exercise with the **U.S., Japan, and Australia.**

**Topic-** GS Paper III– Defence

**Source-** The Hindu

**Inner Line Permit**

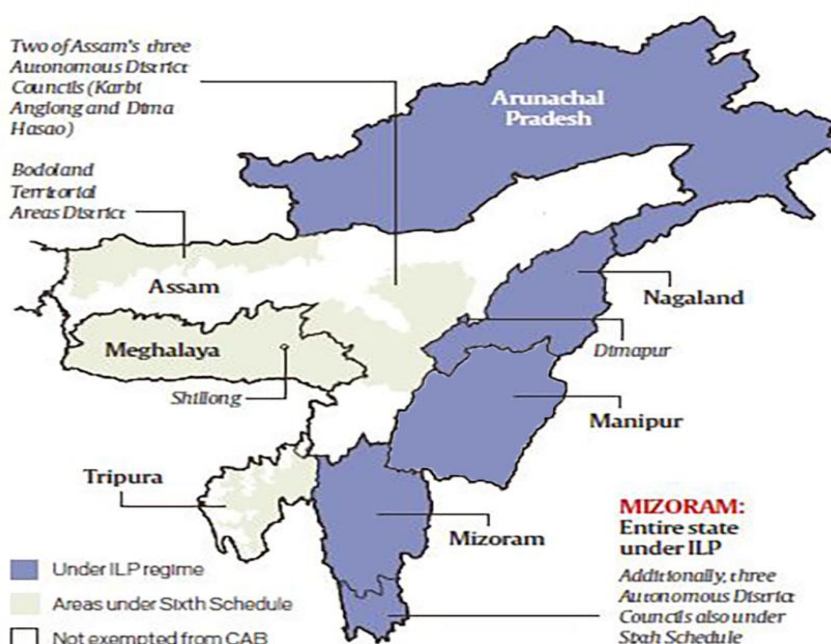
**Why in the news?**

- **Union Home Minister** has recently said that the **implementation of Inner Line Permit (ILP)** was the **biggest gift given by the Centre to Manipur** since its creation as a state.

**Related Information**

**Background**

- The **Inner Line Permit** is an extension of the **Bengal Eastern Frontier Regulation Act 1873**. The **Britishers framed regulations** restricting entry in certain designated areas.
- This was done to protect the **Crown’s interest** in certain states by preventing **“British subjects” (Indians)** from **trading within these regions.**



<b>ARUNACHAL PRADESH:</b> Entire state under ILP regime	<b>MEGHALAYA:</b> Almost entire state covered under Sixth Schedule, except a part of Shilong
<b>NAGALAND:</b> Entire state under ILP regime	<b>ASSAM:</b> 3 Autonomous District Councils under Sixth Schedule
<b>TRIPURA:</b> Sixth Schedule covers 70% of geographical area	<b>MANIPUR:</b> Entire state under ILP regime

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### About Inner Line Permit

- It is an **official travel document** issued by the **Government of India** to allow travel of an **Indian citizen** into a **protected area** for a **limited period**.
- It is **obligatory for Indian citizens** from **outside certain states**, to obtain such a permit.
- At present, **four Northeastern states are covered**, namely, **Arunachal Pradesh, Nagaland and Mizoram** are **protected by the Inner Line**, and lately, **Manipur** was added.
- The **Inner Line Permit determines** both the **duration of stay** and the areas and **allowed to be accessed for any non-native**.
- The **concerned state government** issues the **Inner Line Permit**.

Topic- GS Paper III–Internal Security

Source- Indian Express

### Akash Missile System

#### Why in the news?

- **Union Cabinet** has **recently approved export of Akash Missile System** and has created a **Committee for faster Approval of Defence Exports**.



#### About Akash Missile System

- It is a **Surface to Air Missile** with a **range of 25 Kms**.
- The **missile was inducted in 2014 in Indian Air Force** and in **2015 in Indian Army**.
- It is a **country's important missile** with over **96 percent indigenization**.

#### Related Information

##### About Committee for faster Approval of Defence Exports

- It is a **Committee comprising of Raksha Mantri, External Affairs Minister and National Security Advisor** which help to provide faster approvals for export.
- This **Committee would authorize subsequent exports** of major **indigenous platforms** to various countries.



- The **Committee would also explore various available options** including the **Government-to-Government route**.

**Note:**

- **Government of India intends to focus on exporting high value defence platforms, to achieve target of 5 Billion USD of defence export and improve strategic relations with friendly foreign countries.**

**Topic- GS Paper III–Defence**

**Source- The Hindu**

**SAHAYAK-NG**

**Why in the news?**

- Recently, **Defence Research and Development Organisation (DRDO)** along with **Indian Navy** conducted the **successful maiden test trial of ‘SAHAYAK-NG’**.



**About SAHAYAK-NG**

- It is **India’s first indigenously designed and developed Air Dropped Container** from **IL 38SD aircraft (Indian Navy)**.
- **SAHAYAK-NG is an advanced version of SAHAYAK Mk I.**
- It will **help to enhance its operational logistics capabilities and provide critical engineering stores** to ships which are **deployed more than 2000 km from the coast**.
- It **reduces the requirement of ships** to come close to the **coast to collect spares and stores**.
- The **newly developed GPS aided air dropped container** is having the **capability to carry a payload that weighs upto 50 kg and can be dropped from heavy aircraft**.
- It has a **Satellite-based Reporting Terminal (SBRT)**, which provides its precise **GPS location enabling the ship in distress to pick up critical stores**.

**Topic- GS Paper III–Defence**

**Source- AIR**

## Environment

### Centre constitutes Committee for implementation of 2015 Paris Agreement

#### Why in the news?

- The **Central government** has constituted an **Apex Committee for Implementation of Paris Agreement (AIPA)**.



#### About the Committee for Implementation of Paris Agreement (AIPA)

##### Objective

- To ensure a **coordinated response on climate change matters** that protects the country's interests and provides that **India is on track towards meeting its climate change obligations under the Paris Agreement including its submitted Nationally Determined Contributions (NDCs)**.

##### Functions

- The **Committee** shall function to **define responsibilities of concerned ministries for achieving India's NDC goals** and receive **periodic information** updates to **monitor, review and revisit climate goals to fulfil the requirements** of the Paris Agreement.
- **India's INDC, to be achieved primarily, by 2030**
- **India** promised to reduce the **emissions intensity of its GDP by 33-35 % by 2030 from 2005 level**.
- It will achieve about **"40% cumulative electric power installed capacity from non-fossil fuel-based energy resources (mainly renewables like wind and solar power) by 2030"** with the help of the transfer of technology and low-cost international finance, including from the **Green Climate Fund**.
- **India** also promised an **additional carbon sink** (a means to absorb carbon dioxide from the atmosphere) of **2.5 to 3 billion tonnes of carbon dioxide** equivalent through **additional forest and tree cover** by the year **2030**.
- It will also **develop policies and programmes**, if required, to **make India's domestic climate actions** compliant with its **international obligations**.

### Members

- The **AIPA committee** constitutes a **Chairperson, Vice-Chairperson** and 15 other members from different ministries.
- The **Member-Secretary of AIPA** shall be **responsible for day-to-day activities** of the Committee.

### Mandatory

- The **AIPA shall furnish reports** about its activity **at least once in six months to the Central Government.**

### Related Information

- **India is a party to the United Nations Framework Convention on Climate Change (UNFCCC)** whose objective is to **achieve stabilisation of greenhouse gas concentrations** in the atmosphere at a level that would **prevent dangerous anthropogenic interference** with the climate system.
- India had submitted its **Nationally Determined Contribution (NDC) in 2015** for implementation of the **Paris Agreement in the post-2020 period.**

### About Paris Agreement

- It is also known as the **Conference of Parties 21 or COP 21**, which is a **landmark environmental accord** that was **adopted in 2015** to **address climate change** and its negative impacts.
- It replaced the **Kyoto Protocol**, which was an **earlier agreement to deal with climate change.**

### Aims

- To **reduce global GHG emissions to limit the global temperature increase** in this century to **well below 2°C** above pre-industrial levels, while **pursuing means to limit the rise to 1.5°C by 2100.**
- **It includes:**
  - Addressing the **financial losses vulnerable countries** face from **climate impacts such as extreme weather.**
  - **Raising money to help developing countries adapt to climate change and transition to clean energy.**
  - This part of the deal has been made **non-legally binding on developed countries.**
  - Before the conference started, **more than 180 countries** had submitted **pledges to cut their carbon emissions** (Intended Nationally Determined Contributions or INDCs).

### Intended Nationally determined contributions

- The **Paris Agreement** requires **all Parties to put forward their best efforts** through **nationally determined contributions (NDCs)** and to **strengthen these efforts in the years ahead.**
- This includes **requirements that all Parties regularly report on their emissions and their implementation efforts.**
- **It is not legally binding.**
- India also reaffirmed its **Intended Nationally Determined Contributions** commitments to **meeting the goals under the Agreement to combat the climate change.**

**Topic- GS Paper III– Environment**

**Source- Down to Earth**

### Zebrafish

**Why in the news?**

- Recently, **Scientists at Pune-based Agharkar Research Institute** have **identified Zebrafish's genes** that can **promote heart regeneration**.

**About Zebrafish**

- It is a **tiny freshwater fish** found in the **tropical and subtropical regions**.



**Distribution**

- It is native to **South Asia's Indo-Gangetic plains**, where they are mostly found in the **paddy fields and even in stagnant water and streams**.

**Unique Characteristics**

- Its **unique characteristics** lie in its **transparency during its embryonic stages**, allowing **observing all organs** which make these organisms is used as a **model organism**.
- It can **regenerate almost all its organs**, including the **brain, heart, eye, spinal cord** within a short time-period.

**Topic- GS Paper III- Environment**

**Source- The Hindu**

### Peacock Soft-shelled Turtle

**Why in the news?**

- Recently, **Peacock soft-shelled turtles** (a turtle of a vulnerable species) have been rescued from a **fish market in Assam's Silchar**.



### About Peacock Soft-shelled Turtle

- The scientific name of the Peacock Soft-shelled Turtle is *Nilssonia hurum*.

#### Distribution

- This species is confined to **India, Bangladesh and Pakistan**.
- In India, it is **widespread in the northern and central parts** of the **Indian subcontinent**.
- These are found in **rivers, streams, lakes and ponds with mud or sand bottoms**.

#### Conservation Status:

- These are listed as **Schedule I** of the **Wildlife Protection Act, 1972**.
- These are listed as **Vulnerable** in the IUCN Red List.
- Under the **CITES** these are listed in **Appendix I**.

**Topic- GS Paper III– Environment**

**Source- The Hindu**

### Malayan Giant Squirrel

#### Why in the news?

- Recently, **Zoological Survey of India (ZSI)** in their study projected that numbers of the **Malayan Giant Squirrel (Ratufa bicolour)** could **decline by 90 per cent** in India by **2050**.

#### About the Malayan Giant Squirrel

India is home to three giant squirrel species.

1. Malayan Giant Squirrel
2. Indian Giant Squirrel
3. Grizzled Giant Squirrel



#### About Malayan Giant Squirrel

- The giant black squirrel or Malayan giant squirrels is **one of the world's largest squirrel species**.

#### Distribution

- It is found in forests from **northern Bangladesh, northeast India, eastern Nepal, Bhutan, southern China, Myanmar, Laos, Thailand, Malaysia, Cambodia, Vietnam, and western Indonesia (Java, Sumatra, Bali, and nearby small islands)**

- In India, they are currently found in parts of **West Bengal, Sikkim, Assam, Arunachal Pradesh, Meghalaya, and Nagaland.** **Conservation Status of Giant Squirrel**

#### **Malayan Giant Squirrel**

- The species is listed as **Near Threatened** on **IUCN Red List**.
- It is protected under **India's Wildlife Protection Act, 1972**.

#### **Grizzled Giant Squirrel**

- The species has been categorised as **near threatened** by the IUCN Red List.
- These are listed under **Schedule II of CITES**.
- It is an endangered species listed under **Schedule I of the Wildlife Protection Act, 1972**.

#### **Indian Giant Squirrel**

- The species has been categorised as **Least Concern** by the IUCN Red List.

**Topic- GS Paper III–Environment**

**Source-Indian Express**

### **Houbara Bustards**

#### **Why in the news?**

- **Pakistan has issued special permits to Saudi Crown Prince Mohammed bin Salman to hunt the internationally protected houbara bustards during the hunting season 2020-21.**



#### **About Houbara Bustards**

- **Bustards are large, terrestrial birds that belong to several species, including some of the largest flying birds.**
- The **International Union for Conservation of Nature (IUCN)** recognises **two distinct species** found in:
  - a. North Africa (*Chlamydotis undulata*)
  - b. Asia (*Chlamydotis macqueenii*)

#### **Distribution**

- The **population of the Asian houbara bustards** extends from **northeast Asia, across central Asia, the Middle East, and the Arabian Peninsula** to reach the **Sinai desert (Egypt)**.
- After breeding in the spring, the **Asian bustards** migrate south to spend the **winter in Pakistan, the Arabian Peninsula and nearby Southwest Asia.**

#### **Conservation Status**

- These birds are listed as **Vulnerable** in the **IUCN Red List**.

**Topic- GS Paper III–Environment**  
**Source-Indian Express**

**Central Zoo Authority**

**Why in the news?**

- Recently at the **37th General Body meeting of Central Zoo Authority** chaired by **Union Minister for Environment, Forest and Climate Change** has granted recognition **two new zoos the Rajgir Zoo Safari** in Nalanda, Bihar and **Shaheed Ashfaque Ullah Khan Prani Udyaan** in Gorakhpur, Uttar Pradesh.



**About Rajgir Zoo Safari, Nalanda, Bihar**

- The zoo is located close to the historically important Nalanda.
- The Chief Minister of the state personally monitored the establishment of the zoo.
- The zoo will display wild animals in naturalistic safari enclosures and promote awareness of towards wildlife conservation.

**About Shaheed Ashfaque Ullah Khan Prani Udyaan, Gorakhpur, U.P.**

- With this, the state of Uttar Pradesh has a total of 9 zoos.
- The establishment of the zoo is personally monitoring by the Chief Minister of the state.
- The zoo is situated in the spiritual land of Gorakhpur and has a high visitation.
- The zoo aims to create awareness through the naturalistic enclosure.

**Related Information**

**About Central Zoo Authority**

- It is a statutory body under the **Ministry of Environment, Forest and Climate Change** which was **constituted in 1992 under the Wildlife (Protection) Act, 1972.**

**Members**

- It is chaired by the **Environment Minister** and has ten members and a member-secretary.

**Objective**

- The **main objective of the authority** is to complement and strengthen the **national effort in the conservation** of rich biodiversity.

## Functioning

- The authority provides recognition to zoos and is also tasked with regulating the zoos across the country.
- It lays down guidelines and prescribes rules under which animals may be transferred among zoos nationally and internationally.
- It coordinates and implements programmes on capacity building of zoo personnel, planned breeding programmes and ex-situ research.

## Topic- GS Paper III– Environment

Source- The Hindu

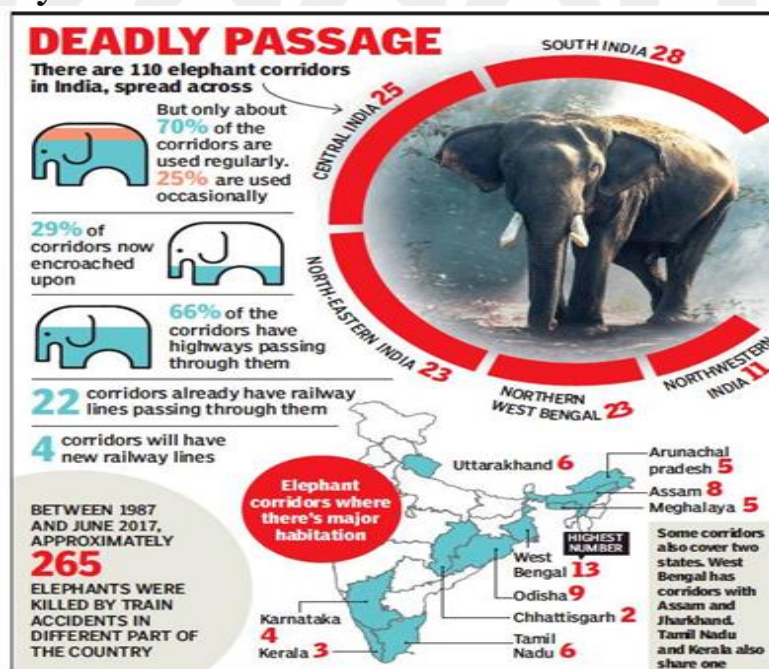
## Elephant corridors

### Why in the news?

- The **National Green Tribunal (NGT)** has directed the **Odisha government** to prepare an **action plan within three months on 14 identified elephant corridors** for providing stress-free migration to **jumbos** from **one habitation to another** in the State.

### About Elephant Corridors

- Elephant corridors are **narrow strips** of land that **connect two large habitats of elephants**.
- Elephant corridors are **crucial to reducing animal fatalities** due to accidents and other reasons.
- So, **fragmentation of forests** makes it more important to preserve **migratory corridors**.



## Conservation Status

- The African elephants are listed as '**vulnerable**' in the IUCN Red List.
- The Asian elephants are listed as '**endangered**' in IUCN Red List.



### CITES status

- Asian Elephants are listed in **Appendix I** of CITES, whereas African elephants in **Botswana, Namibia, South Africa, and Zimbabwe** listed in **Appendix II** of CITES.

### Conservation Efforts

About project Elephant

- The **Government of India** launched **Project Elephant (PE)** in the year **1992** as a **Centrally Sponsored Scheme**. It helps to provide **financial and technical support** to **wildlife management efforts** by states for their **free-ranging populations** of **wild Asian Elephants**.
- The project aims to **ensure the long-term survival** to the **populations of elephants** in their **natural habitats** by **protecting the elephants, their habitats and migration corridors**.

Objectives

- To protect elephants, their **habitat & corridors**.
- To address issues of **man-animal conflict**.
- The **welfare of captive elephants**

World Elephant Day

- It is an **annual international event** on **August 12**, dedicated to the **preservation and protection of the world's elephants**

Gaj Yatra

- It a **nationwide awareness campaign** to **celebrate elephants** and highlight the **necessity of securing elephant corridors**.

MIKE Programme

- The **Monitoring the Illegal Killing of Elephants (MIKE)** programme launched in 2003.
- It is an **international collaboration** that **tracks trends in information** related to the **illegal killing of elephants** from **across Africa and Asia**, to **monitor the effectiveness of field conservation efforts**.

**Topic- GS Paper III– Environment**

**Source- The Hindu**

### Eco-ducts or eco-bridges

**Why in the news?**

- **Ramnagar Forest Division in Nainital district**, Uttarakhand, recently built its **first eco-bridge for reptiles and smaller mammals**.



The new eco-bridge built for reptiles in Ramnagar, Uttarakhand

### About eco-bridges

- **Eco-ducts or eco-bridges** aim to **enhance wildlife connectivity** that can be **disrupted because of highways or logging**.

### Types of Eco-bridges

- It includes **canopy bridges** (usually for monkeys, squirrels and other arboreal species).
- It also included **concrete underpasses or overpass tunnels** or viaducts (generally for larger animals) and **amphibian tunnels or culverts**.
- Usually, **these bridges are overlaid** with planting from the area to give it a **contiguous look with the landscape**.

### Significance

- Eco-bridges play a **very important role in maintaining connections between animal and plant populations** that would otherwise be isolated and therefore at **greater risk of local extinction**.

### Existing wildlife crossings or animal overpasses on highways across the world

- Banff National Park
- Collier and Lee counties in Florida
- Slaty Creek Wildlife Underpass
- Underpasses in southern California
- Ecoducts, Netherlands

### Related Information

#### About Animal Bridges

- Recently, **India's first five animal bridges** have been planned on the **Delhi-Mumbai Expressway** to avoid disturbances to **Ranthambore Wildlife Corridor** that connects **Mukundra and Ranthambore Wildlife Sanctuaries**.
- The **Central Wildlife Board** has approved the **plan of the animal bridges**.



### Benefits

- The **animal bridges** are **natural-looking structures** over the corridor that will **provide safe passage for the wildlife**.
- The **animals under the plan** will get passage at **every 500 m interval**.
- The **animal passages** are to be **developed as a part of the forest corridor** with trees.

- Therefore, the **animals will find the corridor natural**.
- The **animal bridges will help prevent** man-animal conflict and also avoid **collisions between animals and vehicles**.

**Topic- GS Paper III–Environment**

**Source- AIR**

### Indian Bison

**Why in the news?**

- Recently Indian Bison has been died due to stress and exhaustion in Pune.



### **About the Indian Bison or Gaur (Bos gaurs)**

- The Gaur, also known as Indian Bison, is native to South and Southeast Asia, which is the largest species among the wild cattle.
- In India, they are found in Nagarhole, Bandipur, Masinagudi National Parks and BR Hills.
- In Malaysia, it is called seladang, and pyaung in Myanmar.
- The domesticated form of the Gaur is called gayal (Bos frontalis) or mithun.

### **Conservation Status:**

- They are listed as **Vulnerable** on the IUCN Red List since 1986.
- These are included in **the Schedule I** of the **Wild Life Protection Act, 1972**.

### **Note:**

- Recently, the first population estimation exercise of the Indian Gaur (Bison) was carried out in the Nilgiris Forest Division, Tamil Nadu.

**Topic- GS Paper III– Environment**

**Source- The Hindu**

### Ischaemumjanarthanamii

**Why in the news?**

- Recently, a new species of Indian **Muraingrasses (Genus Ischaemum)** known for their **ecological and economic importance**, such as fodder, have been spotted by scientists in **Goa in the Western Ghats**.



### About the species *Ischaemumjanarthanamii*

- The species was named *Ischaemumjanarthanamii* in honour of **Prof. M. K. Janarthanam**, **Professor of Botany, Goa University**, for his **contribution to the Indian grass taxonomy** and documentation of the **floristic diversity of Goa state**.
- *Ischaemumjanarthanamii* grows on **low altitude lateritic plateaus** in the outskirts of **Bhagwan Mahavir National Park, Goa**.
- The species has **adapted to survive harsh conditions, low nutrient availability, and blossoms every monsoon**.

### Note:

- **Globally 85 species** are known from *Ischaemum*, of which **61 species** are exclusively found in India.

Topic- GS Paper III–Environment

Source- PIB

### Emissions Gap Report 2020

#### Why in the news?

- The **United Nations Environment Programme (UNEP)** has recently released its annual **Emissions Gap Report 2020**.



#### Key findings of the report

- Record high GHG emissions
  - **Global GHG emissions** continued to grow for the **third consecutive year in 2019**.

- **Fossil carbon dioxide (CO<sub>2</sub>) emissions** (from fossil fuels and carbonates) **dominate total GHG emissions** including **land-use change** (65 per cent) and consequently the growth in GHG emissions.
- The GHG emissions are **declining in the Organisation of Economic Cooperation and Development (OECD)** economies and increasing in non-OECD economies.
- G20 countries account for the bulk of emissions
  - Over the last decade, the **top four emitters (China, the United States of America, EU27+UK and India)** have contributed to 55 per cent of the total GHG emissions without **land-use change (LUC)**.
  - The **top seven emitters** (including the Russian Federation, Japan and international transport) have contributed to 65 per cent, with G20 members accounting for 78 per cent.
- Forest fires increasing GHG emissions
  - Since **2010, GHG emissions without LUC** have grown at **1.3 per cent per year on average**, with **preliminary data suggesting a 1.1 per cent increase in 2019**.
- CO<sub>2</sub> emissions could decrease by about 7 per cent in 2020 compared with 2019 emission levels
  - The reduction in **GHG emissions in 2020 due to COVID-19** is likely to be significantly larger than the **1.2 per cent reduction** during the **global financial crisis in the late 2000s**.
  - Although **CO<sub>2</sub> emissions likely to decrease in 2020** but the resulting **atmospheric concentrations of major GHGs** (CO<sub>2</sub>, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O)) will continue to **increase in both 2019 and 2020**.
- Net-zero emissions goals of several countries
  - The **growing number of countries** that are **committing to net-zero emissions goals** by around **mid-century is the most significant and encouraging climate policy** development of 2020.
  - One hundred **twenty-six countries covering 51 per cent** of global GHG emissions have **net-zero goals** that are **formally adopted**.
  - The following G20 members have net-zero emissions goals:
    - **France and the United Kingdom**, which have legally enshrined their 2050 net-zero GHG emissions goals.
    - The **European Union**, which aims to achieve net-zero GHG emissions by 2050.
    - **China**, which announced plans to achieve carbon neutrality before 2060.
    - **Japan**, which announced a goal of net-zero GHG emissions by 2050.
    - The **Republic of Korea**, the president of which committed the country to become carbon neutral by 2050.
    - **Canada**, which has indicated its intention to legislate a goal of net zero emissions (though it is unclear if this refers to just CO<sub>2</sub> or all GHGs) by 2050.
    - **South Africa**, which aims to achieve net-zero carbon emissions by 2050.

- **Argentina and Mexico**, which are both parts of the **UNFCCC Climate Ambition Alliance** working towards **net-zero emissions by 2050**.

### Related Information

#### About Emission Gap Report

- It is an **annual report of the United Nations Environment Programme (UNEP)**.
- The **annual report from UNEP** measures the **gap between anticipated emissions and levels consistent with the Paris Agreement** goals of **limiting global warming** this century to well **below 2°C and pursuing 1.5°C**.
- The report assesses the **gap between estimated future global greenhouse gas (GHG) emissions** if countries implement their **climate mitigation pledges and the global emission levels from least-cost pathways** that are aligned with **achieving the temperature goals** of the **Paris Agreement**.

#### About Land-use change (LUC)

- **Land use, land-use change, and forestry (LULUCF)**, also referred to as **Forestry and other land use (FOLU)**.
- It is defined by the **United Nations Climate Change Secretariat** as a "**greenhouse gas inventory sector** that covers emissions and removals of greenhouse gases resulting from direct human-induced land use such as **settlements and commercial uses**, land-use change, and forestry activities.

#### Topic- GS Paper III–Environment

#### Source- Down to Earth

### Exotic Wildlife Species

#### Why in the news?

- The **Ministry of Environment, Forest and Climate Change** has recently come out with an **advisory on a one-time voluntary disclosure scheme** that **allows owners of exotic live species** that have been **acquired illegally, or without documents**, to declare their stock to the government.



#### Background

- On **November 22**, the **Supreme Court** upheld an **Allahabad High Court order** granting immunity from **investigation and prosecution** if

one declared illegal acquisition or possession of exotic wildlife species between June and December.

- This was under a **new amnesty scheme** announced by the Centre.
- The **High Court** had said that whoever **declares the stock of exotic species** and submits to registration under the amnesty scheme, “**shall have immunity from any inquiry into the source of licit acquisition or possession of the voluntarily declared stock of exotic species**”.**About Voluntary disclosure scheme**
- The scheme has **allowed owners of exotic live species** that have been **acquired illegally, or without documents**, to declare their stock to the government between **June and December 2020**.
- The **disclosure must be done online** through MoEFCC’s **Parivesh portal**.

#### **Aims**

- It aims to **address the challenge of zoonotic diseases**, develop an **inventory of exotic live species** for better **compliance under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**, and regulate their import.

#### **What kind of exotic wildlife are covered?**

- The **advisory** has defined **exotic live species as animals** named under the **Appendices I, II and III of the CITES**.
- It does not include species from the Schedules of the **Wild Life (Protection) Act 1972**.
- The **advisory excludes exotic birds** from the **amnesty scheme**.

#### **About CITES**

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora** (also known as the Washington Convention) is a multilateral treaty to **protect endangered plants and animals**.
- It was drafted because of a **resolution adopted in 1963** at a meeting of members of the **International Union for Conservation of Nature (IUCN)**.
- The convention was **opened for signature in 1973** and **CITES** entered into force on **July 1, 1975**.
- It aims to ensure that **international trade in specimens of wild animals** and plants does not threaten the survival of the species in the wild.
- **CITES** is legally binding on the Parties; it does not take the place of national laws.

#### **What are CITES appendices?**

- There are three appendices: Appendix I, II, and III, each one denotes a different level of protection from trade.

#### Appendix I

- It includes species that are in danger of extinction because of international trade. Permits are required for import and export, and trade for commercial purposes is prohibited.
- Trade may be allowed for research or law enforcement purposes.

### Appendix II

- It includes species that are not facing imminent extinction but need monitoring to ensure that trade does not become a threat.
- Export is allowed if the plant, animal, or related product was obtained legally and if harvesting, it will not hurt the species' chance of survival.

### Appendix III

- It includes species that are protected in at least one country when that country asks others for help in regulating the trade.
- Regulations for these species vary, but typically the country that requested the listing can issue export permits, and export from other countries requires a certificate of origin.
- Changes to Appendix III follow a specific procedure from changes to Appendices I and II, as each Party's is entitled to make unilateral amendments to it.

### **Topic- GS Paper III– Environment**

**Source- The Hindu**

### Myristica Swamp Treefrog

#### **Why in the news?**

- Recently, **Myristica swamp treefrog**, a **rare arboreal species endemic** to the **Western Ghats** has been recorded for the **first time north of the Shencottah gap** in the **Vazhachal Reserve Forest in Kerala's Thrissur** district.

#### **About Myristica Swamp Treefrog**

- The scientific name of Myristica swamp treefrog is *Mercurana myristicapalustris*.
- These frogs are rare and elusive **since they are arboreal and active** only for a **few weeks** during their **breeding season**.



#### **Unique breeding behaviour**

- The breeding season, unlike for other frogs, starts in the pre-monsoon season (May) and ends before the monsoon becomes fully active in June.

### **Topic- GS Paper III– Environment**

**Source- The Hindu**

### Himalayan serow

#### **Why in the news?**

- Recently, **Himalayan serow** has been **sighted for the first time** in the **Himalayan cold desert region**.



### About Himalayan serow

- The scientific name of Himalayan serow is *Capricornis sumatraensis*.
- It is a medium-sized mammal with a large head, thick neck, short limbs, long, mule-like ears, and a coat of dark hair.



### Distribution

- There are several species of serows, and all of them are found in Asia.
- These are typically found at altitudes between 2,000 metres and 4,000 metres (6,500 to 13,000 feet).
- They are known to be found in eastern, central, and western Himalayas, but not in the Trans Himalayan region.

### Conservation status

- It is listed as 'vulnerable' in the IUCN Red List of Threatened Species.
- Under the Wildlife Protection Act, 1972, it is listed under Schedule I.

Topic- GS Paper III–Environment

Source-Indian Express

### Himalayan griffon vulture

#### Why in the news?

- Himalayan griffon vulture, a rare and largest bird native to the Himalayas, has been recently sighted for the first time at the Point Calimere Wildlife and Bird Sanctuary near Vedaranyam in Nagapattinam district of Tamil Nadu.



### Related Information

- **Recently, the National Board for Wildlife** has approved an **Action Plan for Vulture Conservation 2020-2025** in five states.

### About Action Plan for Vulture Conservation

- The action plan was approved by the **National Board for Wildlife (NBWL) October 5, 2020**.
- An earlier one was **formulated in 2006** for three years.

### Key highlights of the Action Plan for Vulture Conservation

- The **five states** are **Uttar Pradesh, Tripura, Maharashtra, Karnataka, and Tamil Nadu** will get **vulture conservation and breeding centre** each.
- The plan has also suggested that **new veterinary non-steroidal anti-inflammatory drugs (NSAIDS)** be tested on vultures before their commercial release.
- **NSAIDs often poisons cattle** whose carcasses the birds pray on.
- The new plan has **laid out strategies and actions** to stem the decline in vulture population, especially of the three Gyps species:
  - a. Oriental white-backed vulture (*Gyps bengalensis*)
  - b. Slender-billed vulture (*Gyps tenuirostris*)
  - c. Long-billed vulture (*Gyps indicus*)
- These three vulture species were **listed by IUCN**, in 2000 as **‘Critically Endangered’**, which is the **highest category of endangerment**.
- This would be done through both **ex-situ and in-situ conservation**.
- **To remove toxic drug:** A system to **automatically remove a drug** from veterinary use if it is found to be **toxic to vultures**, with the **help of the Drugs Controller General of India**.
- **Rescue Centres:** Establishment of four rescue centres, in **Pinjore (Haryana), Bhopal (Madhya Pradesh), Guwahati (Assam) and Hyderabad (Telangana)**.
- There are currently no dedicated **rescue centres for treating vultures**.
- **Vulture Safe Zone:** Conservation breeding of **red-Headed vultures** and **Egyptian vultures** and the establishment at least one vulture-safe zone in each state for the **conservation of the remnant populations in that state**.
- **For Vulture Census:** Coordinated **nation-wide vulture counting**, involving **forest departments, the Bombay Natural History Society**, research institutes, non-profits, and members of the public.
- This would be for getting a more accurate estimate of the size of vulture populations in the country.
- **Database on Threats to Vulture:** A database on **emerging threats to vulture conservation** including collision and electrocution, unintentional poisoning.

## Related Information About Vultures in India

**Declining population** India has nine species of vultures, six of which are found in Assam



**Vultures of the genus 'Gyps'**

- Oriental white-backed (Assam, critically endangered)
- Long-billed (critically endangered)
- Slender-billed (Assam, critically endangered)
- Himalayan griffon (Assam, winter visitor from Himalayas)

**Single representative species**

- Eurasian griffon (Assam, winter visitor from Himalayas)
- Egyptian
- Bearded
- Cinereous (Assam)
- King (Assam, critically endangered)

Out of 23 species of vultures in the world, nine are found in India. These include:

Species	Conservation Status
White rumped vulture	Critically endangered
Slender billed vulture	Critically endangered
Long billed vulture	Critically endangered
Red headed vulture	Critically endangered
Egyptian vulture	Endangered
<b>Himalayan Griffon</b>	<b>Near Threatened</b>
Cinereous vulture	Near Threatened
Bearded vulture	Near Threatened
Griffon Vulture (Gyps fulvus)	Least Concern

**Topic- GS Paper III–Environment**  
**Source-Indian Express**

### 12th GRIHA (Green Rating for Integrated Habitat Assessment) Summit **Why in the news?**

- The **Vice President of India** has virtually inaugurated the **12th GRIHA (Green Rating for Integrated Habitat Assessment) Summit**, organized by the **GRIHA Council from Hyderabad**.

### **Related Information**

#### **About Green Rating for Integrated Habitat Assessment (GRIHA)**

- It is **India's rating system** jointly developed by **TERI and the Ministry of New and Renewable Energy, Government of India**.
- It is a **green building design evaluation system** where **buildings are rated in a three-tier process**.



- The **GRIHA Rating System** contains **34 evaluation criteria** with **100 points**.

These criteria have been categorized into

- **Site Planning** including conservation and efficient utilization of resources
- **Health and wellbeing** during building planning and construction stage
- **Water Conservation.**
- **Energy Efficiency** including energy embodied & construction and renewable energy.
- **Waste Management** including waste minimization, segregation, storage, disposal and recovery of energy from waste.
- **Environment** for good health and wellbeing.

**Note:**

- The **Indian Green Building Council** has adapted the **LEED** system and has **launched LEED India** version for a rating of new construction.

**Topic- GS Paper III–Environment**

**Source-PIB**

### **Golden Peacock Environment Management Award**

**Why in the news?**

- Recently, the **Steel Authority of India Limited (SAIL)** has been awarded the **prestigious Golden Peacock Environment Management Award** for the year **2020** in the **Steel Sector**.



### About Golden Peacock Environment Management Award

- Golden Peacock Environment Management Award is the **coveted and prestigious recognition** that an **organization could strive to win for environment management**.
- It was **instituted in 1998** by the **World Economic Forum (WEF)**. It is presented at the **Annual' World Congress on Environment Management'** to **organizations adjudged** to have **attained significant achievements** in the **field of Environment Management**.

### About Steel Authority of India Limited

- It is one of the **largest steel-making companies in India** and one of the **Maharatna's** of the **country's Central Public Sector Enterprises**.

### Related Information

#### About the World Economic Forum

- It was **established in 1971** as a **not-for-profit foundation** and is **headquartered in Geneva, Switzerland**.
- The **Annual Meeting of the World Economic Forum** is held in **Davos, Switzerland**.
- Its objective is to **improve the state of the world**.

#### Report and indices by World Economic Forum

- i. Global Competitiveness Report
- ii. Global Enabling Trade Report
- iii. Global Gender Gap Index
- iv. Human Capital Index
- v. Inclusive Development Index

#### Topic- GS Paper III– Environment

Source- PIB

### Temple Turtle

#### Why in the news?

- Recently, **twenty-two hatchlings of temple-reared black softshell turtles** were **released** in a **major wetland** within the **Kaziranga National Park**.



#### About Temple Turtle

- The **Yellow-headed Temple Turtle** only occurs in **Southeast Asia**, where it **inhabits slow-flowing rivers, canals, freshwater ponds, and flooded fields**.

- It is a **large species of turtle** in the family *Geoemydidae*.

#### **Distribution**

- It has a **fragmented distribution** in parts of **Thailand, Cambodia, Laos, Vietnam** and **parts of northern Peninsular Malaysia**.

#### **Conservation Status**

- It is classified as '**extinct in the wild**' under the IUCN Red List of Threatened Species.

According to the International Union for Conservation of Nature, the freshwater **black softshell turtle (*Nilssonina nigricans*) is extinct in the wild.**

**Topic- GS Paper III– Environment**

**Source- The Hindu**

### Monarch butterflies

#### **Why in the news?**

- The United States administration has recently announced that Monarch butterflies deserve federal protection under the Endangered Species Act.



#### **About Monarch butterflies**

- The scientific name of the butterflies is **Danaus plexippus**.

#### **Habitat**

- Monarch butterflies are native to North and South America, but they've spread to other warm places where milkweed grows.
- There are also populations are also found in Hawaii, Portugal, Spain, Australia, New Zealand and elsewhere in Oceania.
- These butterflies are also known for migrating thousands of miles across North America.

#### **Conservation Status**

- It is listed as '**Not Evaluated**' under the IUCN Red List of Threatened Species.

**Topic- GS Paper III– Environment**

**Source- The Hindu**

### **Gastrodia agnicellus**

#### **Why in the news?**

- Recently a newly discovered orchid called *Gastrodia agnicellus* has been named “**the ugliest orchid in the world.**”



#### **About Gastrodia Agnicellus**

- This orchid has been found in a forest in Madagascar.
- The orchid depends on fungi for nutrition and has no leaves or any other photosynthetic tissue.

**Topic- GS Paper III–Environment**

**Source-The Hindu**

### **Himalayan trillium**

#### **Why in the news?**

- **Himalayan trillium** (*Trillium govanianum*), a **common herb of the Himalayas** was declared ‘**endangered**’ by the **International Union for Conservation of Nature (IUCN)**.



### About the Himalayan Trillium

- It is a common herb of the Himalayas which is often locally called as **Nagchatri**.

### Vegetation

- It is **found in temperate and sub-alpine zones** of the Himalayas at an altitude from **2,400-4,000 meters** above sea level.

### Uses

- The herb has been **used in traditional medicine** to cure diseases like **dysentery, wounds, skin boils, inflammation, sepsis, and menstrual and sexual disorders**.

### Distribution

- **India, Afghanistan, Pakistan, China, Nepal, Bhutan** have been home to this species.
- In **India**, it is found in four states only- **Himachal Pradesh, Jammu and Kashmir, Sikkim, and Uttarakhand**.

### Topic- GS Paper III–Environment

### Source-The Hindu

### Great Indian Bustard

#### Why in the news?

- The **Ministry of Environment Forest and Climate Change (MoEFCC)** along with the **Wildlife Conservation Society (WCS) India** has come up with a unique initiative – a **“firefly bird diverter”** for overhead power lines in areas where **Great Indian Bustard (GIB) populations** are found in the wild.
- The **firefly detectors** have been **installed along two stretches** of approximately **6.5 km, selected between Chacha to Dholiya** villages in the **Pokhran tehsil, Rajasthan**.



#### Background

- In **2019 report by the Ministry** pointed out that **power lines, especially high-voltage transmission lines with multiple overhead wires**, are the most important current threat for **Great Indian Bustard** in the **Thar region**, and are causing unsustainably high mortality in **about 15% of their population**.



### How firefly bird diverters help birds?

- Firefly bird diverters are flaps installed on power lines.
- Birds can spot them from about 50 metres and change their path of flight to avoid collision with power lines.
- The diverters are called fireflies because they look like fireflies from a distance, shining on power lines in the night.



### About Great Indian Bustards

- It is one of the **heaviest flying birds** which can **grow up to one metre in height**.
- It is considered the **flagship grassland species**, representing the **health of the grassland ecology**.

### Conservation Status

- They are categorized as **critically endangered** under the IUCN red data list.
- These birds have been **protected under CITES Appendix I**.
- These are protected under **Schedule I Wildlife Protection Act, 1972**.

### The protected areas in India for Great Indian Bustard are

- **Desert National Park Sanctuary** in Rajasthan
- **Rollapadu Wildlife Sanctuary** in Andhra Pradesh
- **Karera Wildlife Sanctuary** in Madhya Pradesh

Topic- GS Paper III–Environment

Source-The Hindu

### [Commission for Air Quality Management in NCR and Adjoining Areas](#)

#### Why in the news?

- The **Commission for Air Quality Management in NCR and Adjoining Areas** reviewed the **progress of switching over Industries** operating in **Delhi to Piped Natural Gas** with the **Government of NCT of Delhi, GAIL Indraprastha Gas Limited**.



## About the Commission for Air Quality Management in NCR and Adjoining Areas

- It is a **statutory authority** set up to **tackle air pollution and monitor and improve air quality in the National Capital Region (NCR) and adjoining areas.**

### Composition

#### Chairperson

- The **Commission is headed by a full-time chairperson** who has been a **Secretary to India's Government** or a **Chief Secretary to a State government.**
- The **chairperson** will hold the **post for three years** or until s/he **attains the age of 70 years.**

#### Members

- It has members from **several Ministries** as well as **representatives from the stakeholder States.**
- It will also **have experts from the CPCB, Indian Space Research Organisation (ISRO) and Civil Society.**

#### Power and functions

- The Commission has been **conferred with the ability to lay down air quality parameters**, discharge environmental pollutants parameters, inspect premises violating the law, and order closure of non-abiding industries or plants.
- The Commission can supersede all existing bodies such as the **CPCB and even Haryana, Punjab, Rajasthan, and Uttar Pradesh.**
- It will have the powers to issue directions to the states.
- The **Commission's orders** shall prevail if there is a **conflict between the Central Pollution Control Board and the State Pollution Control Boards.**
- It will have **powers to restrict the setting up of industries in vulnerable areas** and will be **able to conduct site inspections of industrial units.**

Topic- GS Paper III– Environment

Source- The Hindu

## Ladakh's Tso Kar Wetland Complex: A new Ramsar Site

### Why in the news?

- According to the **Ministry of Environment, Forest and Climate Change, India** has added **Tso Kar Wetland Complex** in **Ladakh** as its **42nd Ramsar site**, the **second one in the Union Territory (UT) of Ladakh.**

### About the Ladakh's Tso Kar Wetland Complex

- The **Tso Kar Basin** is a **high-altitude wetland complex**, a notable example of **two connected lakes**, the **freshwater Startsapuk Tso** and the **hypersaline Tso Kar.**

### Location

- **Startsapuk Tso**, a freshwater lake of about **438 hectares** to the south, and **Tso Kar** itself, a hypersaline lake of **1800 hectares** to the north, situated in the **Changthang region** of Ladakh, India.



### About Tso Kar

- It is called **Tso Kar**, meaning **white lake**, because of the **white salt efflorescence** found on the margins due to the evaporation of **highly saline water**.
- **Tso Kar Basin** is an **A1 Category Important Bird Area (IBA)** as per **BirdLife International** and a **key staging site** in the **Central Asian Flyway**.
- The site is also **one of the most important breeding areas** of the **Black-necked Crane** (*Grus nigricollis*) in India.



### Related Information

- Recently, **Kabartal Wetland (Bihar)** and **Asan Conservation Reserve (Uttarakhand)** have been designated as **Ramsar sites** as **38th** and **39th**, respectively.
- **Keetham Lake**, which is also known as **Sur Sarovar**, in **Agra, Uttar Pradesh** has been added **40th Ramsar sites** in India.

### About Ramsar Site

- The **Convention on Wetlands** is an **intergovernmental treaty** adopted on **2 February 1971** in the **Iranian city of Ramsar**, on the southern shore of the **Caspian Sea**.
- Those **wetlands which are of international importance** are declared as **Ramsar sites**.
- The **2 February** is celebrated as "**World Wetlands Day**" every year.
- The **Convention's mission** is "**the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world**".

### Secretariat

- The **secretariat** of Ramsar convention is in **Gland, Switzerland**.

### Bodies of the Convention

- **Government agencies** of the contracting parties, i.e., nations are known as the **country's 'Administrative authority'**.
- They appoint a **National Focal Point** to coordinate the national **implementation of Ramsar projects** and act as the **daily focal point**.
- Every three years, **Parties meet at Conference of Parties (CoP)**, to **administer Convention**.
- There are **five International Organisational Partners (IOPs)** to provide the **necessary support to parties**.
  - a. Birdlife International
  - b. International Union for Conservation of Nature (IUCN)
  - c. International Water Management Institute (IWMI)
  - d. Wetlands International
  - e. World Wide Fund for Nature (WWF)

### Benefits of Joining Ramasar Convention

- Provision of facilities at the national level of policies and actions for the wise use of wetlands.
- Provides an opportunity for a country to be heard in the principal forum on conservation and wise use of wetlands.
- It also brings increased publicity and prestige for wetlands.
- It encourages international cooperation on wetlands and brings access to expert advice on national and site-related problems of wetland, conservation and management.
- It provides access to financial aid through the Convention's Small Grant Fund.
- It brings access to information and advice on the application of the Conventions' internationally accepted standards, such as guidelines on the application of the wise use concept and management planning in wetlands.

### Obligations under the Convention

- To **recommend sites for inclusion** in the "**List of Wetlands of International Importance**".
- To ensure **wise use of wetlands**.
- To **establish reserves and promote training in wetland research, management**.

### About Montreux Record

- The Montreux Record is a **register of wetland sites on the List of Wetlands of International Importance** where changes in **ecological character** have occurred, are occurring, or are likely to occur because of **technological developments, pollution, or other human interference**.
- It is **maintained as part of the Ramsar List**. At present, **two wetlands of India are in Montreux Record: Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur)**.
- **Chilika Lake (Odisha) was placed in the record but later removed from it.**

### Note:

- The **United Nations Educational, Scientific and Cultural Organization (UNESCO)** serves as **Depositary<sup>1</sup>** for the **Convention**, but the **Ramsar Convention** is not part of the **United Nations and UNESCO system of environmental conventions and agreements**.

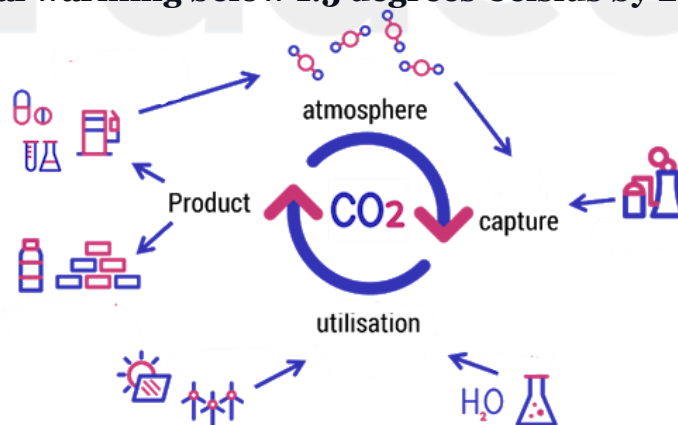
Topic- GS Paper III– Environment

Source-The Hindu Business Line

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

#### Why in the news?

- According to a report by **International Energy Agency (IEA)**, the **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.**



#### 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?

#### IPCC Report

- 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**.

#### Help to achieve Transition to Net-Zero Emissions

- 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**.
- **Net CCS** can **facilitate a just transition** by allowing industries to **make sustained contributions** to local economies while moving toward net-zero.

#### Production of Low- carbon hydrogen

- It is the **cheapest way** to **produce low-carbon hydrogen** at **scale coal** or **natural gas**.

#### Global progress on CCS

##### Absent from INDCs

- CCS is absent from **intended nationally determined contributions (INDCs)** of most countries.
- Thus, **national policies** have **not accepted CCS** as a **promising technology**.

##### Less CCS Facilities

- According to the **latest report** by the **Global CCS Institute**, as of 2020, there were **only 26 operational CCS facilities** capturing around **36-40 million tonnes of carbon per year**.
- Out of the **26 facilities** having CCS worldwide, **24 were in the industries**, and two were **coal-based power plants**.
- The **cost of storage and transportation** is one of the **major bottlenecks for the implementation of CCS**.

##### CCS in India

- **Commercial availability of CCS in India** depends **largely on the 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**.
- Industries, **especially steel and cement**, have been **proactively pursuing CCS** as part of their **emissions reduction ambitions**.

##### Government initiative

##### National Programme on CO<sub>2</sub> Research

- **India's Department of Science and Technology** has established a national programme on **CO<sub>2</sub> storage research**.

### Industry Charter

- 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**.

### ACT Initiative

- It is an **international initiative of 16 countries** to facilitate the **emergence of CCUS** via **transnational funding of projects** to **accelerate and maturing CCUS technology** through **targeted innovation and research activities**.
- In **August 2020**, **India** made a **call for proposals to support CCS research, development, pilot, and demonstration projects** which is a part of the **accelerating CCS technologies (ACT) initiative**.

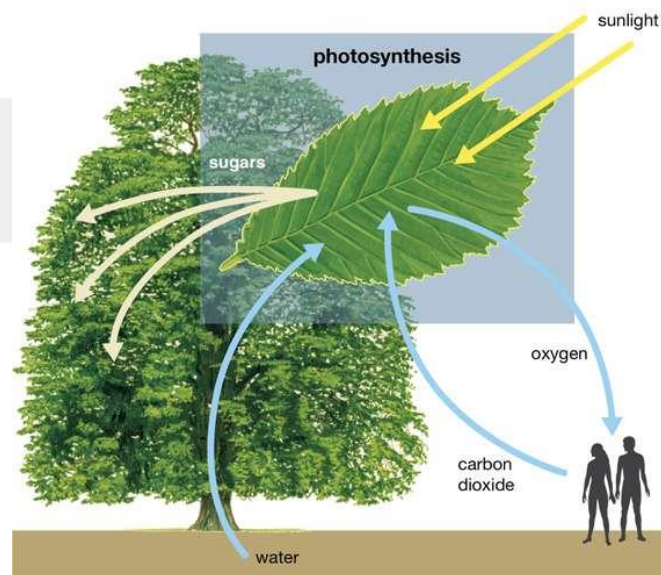
### Topic- GS Paper III–Environment

Source- The Hindu

### BBX11 Gene

#### Why in the news?

- Recently, the **Indian Institute of Science Education and Research (IISER)** researchers have identified a **gene called BBX11**.



#### About BBX11 Gene

- It is a **gene that facilitates the greening of plants by playing a crucial role** in regulating **protochlorophyllide levels**. Using **genetic, molecular, and biochemical techniques**, the researchers found a **mechanism where two proteins oppositely regulate the 'BBX11' gene to maintain optimum levels of 'BBX11'**.
- The study **highlighted that the amount of protochlorophyllide synthesised needed to be proportional to the number of enzymes available to convert them to chlorophyll**.

## Related Information

### About Protochlorophyllide

- It is an **intermediate** in the **biosynthesis** of the **green pigment chlorophyll**.
- The plants make a **precursor of chlorophyll** called '**protochlorophyllide**' in the **dark** to **facilitate chlorophyll's quick synthesis**.

**Topic- GS Paper III–Environment**

**Source- The Hindu**

### Kolar Leaf-Nosed Bat

#### Why in the news?

- The **Bat Conservation India Trust**, which has been **entrusted with drawing up a conservation plan**, has also been **awarded a grant to conduct further research** Kolar Leaf-Nosed species of bats.



#### About Kolar Leaf-Nosed Bat

- It is a species of bat in the family **Hipposideridae**.
- It is **endemic to India** and is currently only known from **two caves in Hanumanahalli village in Kolar district, Karnataka**.
- According to **recent estimates**, there are just **150 Kolar Leaf-Nosed Bats** left in these caves.

#### Conservation Status

- These are listed as **Critically Endangered** in **IUCN Red List**.

#### Related Information

##### About Bat conservation India Trust

- It is a **non-profit organization** which was **conceived for the protection of bat species in India** by protecting their habitat.

#### Mission

- To **preserve and conserve bats** and its **habitats across India** through partnership with **communities, scientists, researchers, government, and organizations**.



**Note:**

- **Chiropterologist** are those who **studies bats** (the flying mammals).

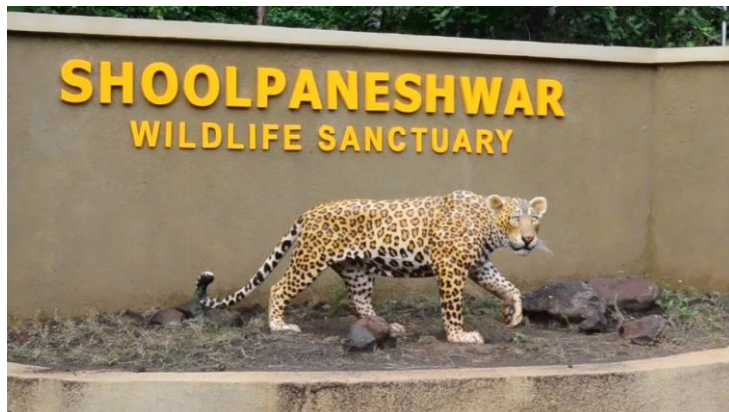
**Topic- GS Paper III–Environment**

**Source- The Hindu**

**Shoolpaneshwar Wildlife Sanctuary**

**Why in the news?**

- Recently, **Tribal communities** have **urged Prime Minister** to **withdraw the Centre’s notification** classifying **121 villages** around the **Shoolpaneshwar Wildlife Sanctuary** in **Narmada district** as **eco-sensitive zones**.



**About Shoolpaneshwar Wildlife Sanctuary**

- It is a **protected area** in **Gujarat state**, located in the **western Satpura Range** south of the **Narmada River**.
- It shares a **common boundary** with **Madhya Pradesh** and **Maharashtra**.
- The **Zarwani Waterfall** is **deep inside** the sanctuary.

**Related Information**

**About Eco-Sensitive Zones**

- **Eco-Sensitive Zones** or **Ecologically Fragile Areas** are areas **within 10 kms** around **Protected Areas, National Parks** and **Wildlife Sanctuaries**.
- These are notified by **Ministry of Environment, Forest, and Climate Change (MoEFCC)** **Government of India** under **Environment Protection Act 1986**.
- In case of **places with sensitive corridors, connectivity, and ecologically important patches, crucial for landscape linkage**, even area **beyond 10 km width** can also be included in the **eco-sensitive zone**.
- The **basic aim is to regulate certain activities** around **National Parks and Wildlife Sanctuaries** so as to **minimize the negative impacts of such activities on the fragile ecosystem** encompassing the protected areas.

**Topic- GS Paper III–Environment**

**Source- Indian Express**

## Geography

### Mount Ili Lewotolok

#### Why in the news?

- Recently, **Mount Ili Lewotolok**, a volcano in eastern Indonesia erupted.



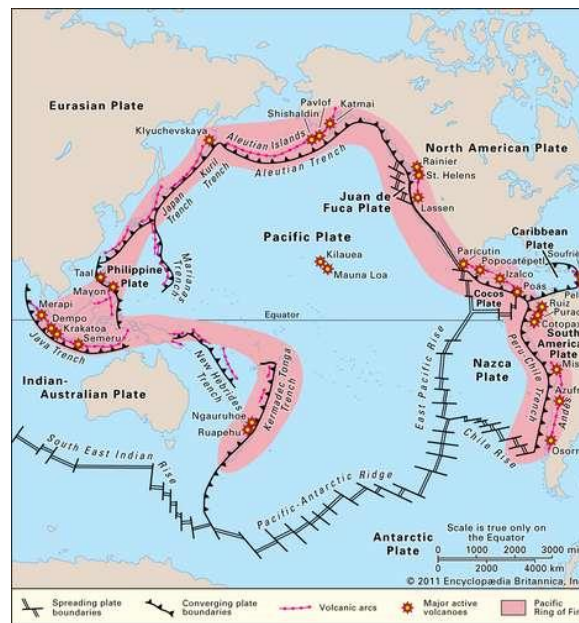
#### About Mount Ili Lewotolok

- It is located on **Lembata island** of **East Nusa Tenggara province** in **Indonesia**.
- The **mountain is one of the three** currently erupting in **Indonesia** along with **Merapi on Java Island** and **Sinabung on Sumatra Island**.
- There are **more than 120 active volcanoes** in **Indonesia** prone to **seismic upheaval** due to its **location on the Pacific “Ring of Fire,”** an arc of **volcanoes and fault lines** around the **Pacific Ocean**.
- **Mount Ili Lewotolok** has been erupting on and off since **October 2017**.

#### Related Information

##### About the Pacific Ring of Fire

- The **Ring of Fire** is a roughly **25,000-mile chain of volcanoes** and seismically active sites that **outline the Pacific Ocean**.
- It is also known as the **Circum-Pacific Belt**.
- The **Ring of Fire is a Pacific region** home to **over 450 volcanoes**, including **three of the world’s four most active volcanoes** – **Mount St. Helens in the USA, Mount Fuji in Japan and Mount Pinatubo in the Philippines**.
- Around **90% of the world’s earthquakes** occur in the **Ring of Fire**, and **80% of the world’s largest earthquakes**.
- The **Ring of Fire** traces the **meeting points of many tectonic plates**, including the **Eurasian, North American, Juan de Fuca, Cocos, Caribbean, Nazca, Antarctic, Indian, Australian, Philippine**, and other smaller plates, which all encircle the **large Pacific Plate**.



### How was the Ring of Fire formed?

- The **Ring of Fire** is the result **from subduction of oceanic tectonic plates** beneath lighter continental plates.
- The area where these **tectonic plates** meet is called a **subduction zone**.

**Topic- GS Paper I– Geography**

**Source- Indian express**

### Cyclone Burevi

#### Why in the news?

- The India Meteorological Department (IMD) has warned of heavy rain for Tamil Nadu and Kerala by the Cyclone Burevi.

#### About Cyclone Burevi

- Burevi, named given by the Maldives.



### Related Information

#### How did a cyclone get its name?

- In 2000, the World Meteorological Organisation (WMO) and the United Nations Economic and Social Commission for Asia and the Pacific

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(UNESCAP) agreed to give names to the tropical cyclones in the Bay of Bengal and the Arabian Sea in a systematic manner.

- The naming of the tropical cyclones over the north Indian Ocean commenced from September 2004.
- With names provided by eight Members, i.e., Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand and later, Iran, Qatar, Saudi Arabia, the UAE and Yemen also joined the panel in 2018.
- All these 13 members suggested 13 names each which mean a total of 169 names.
- In the new list, India has suggested names like Gati, Tej, Murasu, Aag, Vyom, Jhar, Probaho, Neer, Prabhanjan, Ghurni, Ambud, Jaladhi and Vega.
- In general, tropical cyclones are named according to the rules at the regional level.
- In the North Indian Ocean basin, the names are listed alphabetically country wise and are neutral gender-wise.
- Regional Specialised Meteorological Centres (RSMC), i.e. Indian Metrological Department, names cyclones from the lists of names in the basin.
- If a cyclone is particularly deadly or costly, then its name is retired (removed) and replaced by another one.
- Several names were suggested for this cyclone like Nisarga was listed by Bangladesh while India's suggestion was Gati.

#### **Why are cyclones named?**

- Earlier cyclones were identified by using latitude-longitude numbers.
- The method was subjected to errors and often led to confusion.
- Hence later the WMO decided to start giving short, distinctive names to the cyclones.
- According to the World Meteorological Organisation (WMO) guidelines, countries must name cyclones in their regions.

#### **The naming of a Cyclone:**

- Helps swift identification of storms in warning messages
- Eases exchanging detailed storm information between widely scattered stations, coastal bases, and ships at sea.
- Makes far more comfortable to remember than numbers
- Makes easier for the media to report on tropical cyclones, increases interest in warnings and community preparedness.
- Makes easier for the government to identify the cyclone and create awareness regarding it.

#### **The few cyclones will be named**

- **Nisarga:** Suggested by Bangladesh
- **Gati:** Suggested by India
- **Nivar:** Suggested by Iran
- **Burevi:** Suggested by the Maldives
- **Tauktae:** Suggested by Myanmar
- **Yaas:** Suggested by Oman

#### **Topic- GS Paper I–Geography**

**Source-Indian Express, TOI**

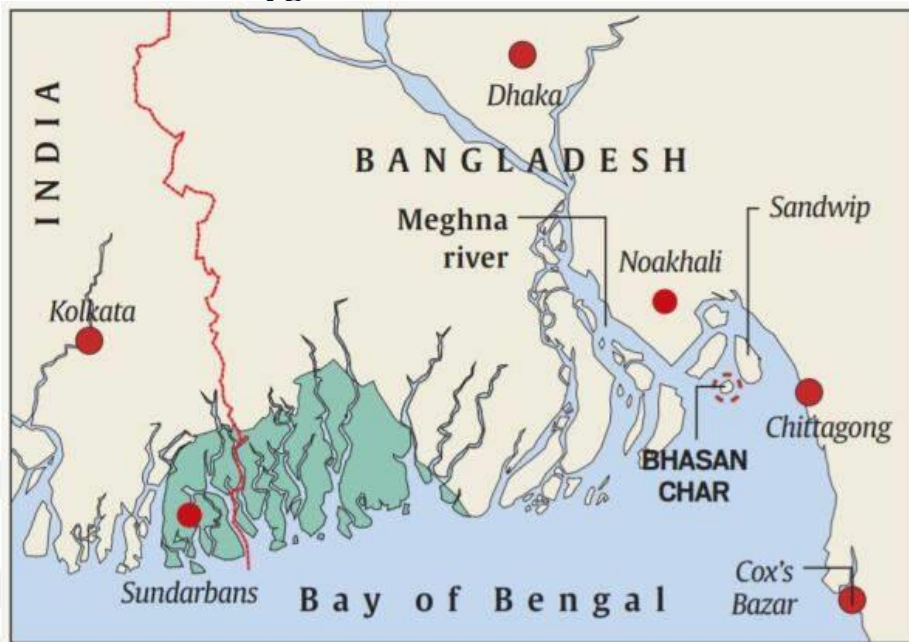
## Bhasan Char

### Why in the news?

- Bhasan Char, the **site where Bangladesh has begun sending Rohingya refugees** from the overcrowded camps at **Cox's Bazar**, is an island formed by sedimentation (char is Bengali for sediment) close to the coast.

### Background

- It is estimated that **more than 8 lakh Rohingya**, who fled an army crackdown in **Myanmar's Rakhine Province in 2016**, live in the camps at **Cox's Bazar in unhygienic conditions**.



- Bangladesh plans to move some **1 lakh refugees to Bhasan Char, 39 km from Noakhali on the mainland**.
- The plan has been in the **making since 2017**.

### About Bhasan Char

- It is located near the **mouth of the river Meghna** where it flows into the **Bay of Bengal**; Bhasan Char surfaced only in 2006 from the sediment deposited by the river.
- Bhasan Char is **less an island and more mudflat** and is vulnerable to going **underwater from tides and flooding**.
- Much of it is **submerged during the monsoon**.
- Bhasan Char **spans 40 sq km** only.

### Topic- GS Paper I–Geography

#### Source-The Hindu

## Kilauea volcano

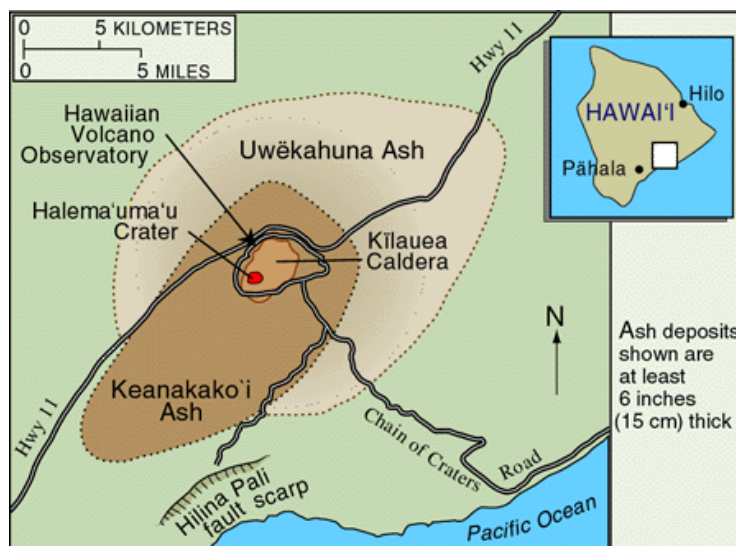
### Why in the news?

- Kilauea volcano in **Hawaii's Big Island** erupted recently followed by an earthquake.



### About Kilauea Volcano

- Kilauea is an **active shield volcano** in the **Hawaiian Islands**.
- It is also called **Mount Kilauea** is in **Hawaii Volcanoes National Park** on the **southeastern part of the island of Hawaii, U.S.A.**
- It is the **most active of the five volcanoes** that form the **Island of Hawaii**.



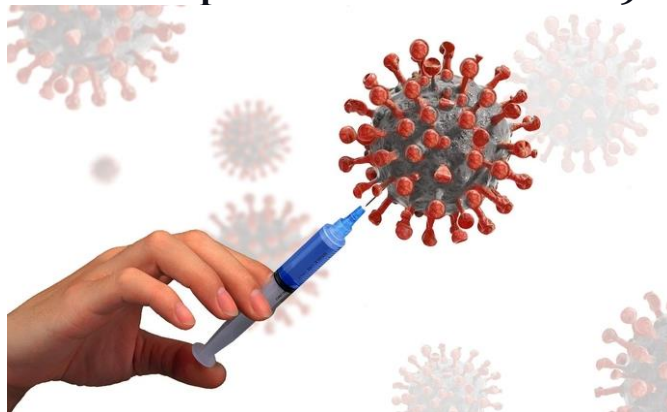
**Topic- GS Paper I- Geography**  
**Source-Indian Express**

## Schemes, Reports and Committees

### Mission COVID Suraksha

#### Why in the news?

- The **Government of India (GOI)** has announced the **third stimulus package for the Mission COVID Suraksha- The Indian COVID-19 Vaccine Development Mission.**
- This grant will be provided to the **Department of Biotechnology (DBT) for Research & Development of Indian COVID-19 vaccines.**



#### About Mission COVID Suraksha

##### Objective

- To **accelerate preclinical & clinical development** by **establishing clinical trial sites** and **strengthening existing immunoassay laboratories**, central laboratories and suitable facilities for animal studies, production facilities and other test facilities to support Covid-19 vaccine development.
- The other important objective will be **supporting the development of standard harmonized protocols**, training, data management systems, regulatory submissions, internal and external quality management systems, and accreditations.
- It aims to **enable the development of indigenous, affordable, and accessible vaccines** for our country and **will complement the National Mission of AtmanirbharBharat.**

##### Implementation

- The **mission is led by the Department of Biotechnology** and implemented by a dedicated **Mission Implementation Unit at Biotechnology Industry Research Assistance Council (BIRAC).**

##### Related Information

#### About Biotechnology Industry Research Assistance Council

- It is a **not-for-profit state-owned enterprise** under the **Department of Biotechnology (DBT)** to **strategically empower emerging biotech companies.**

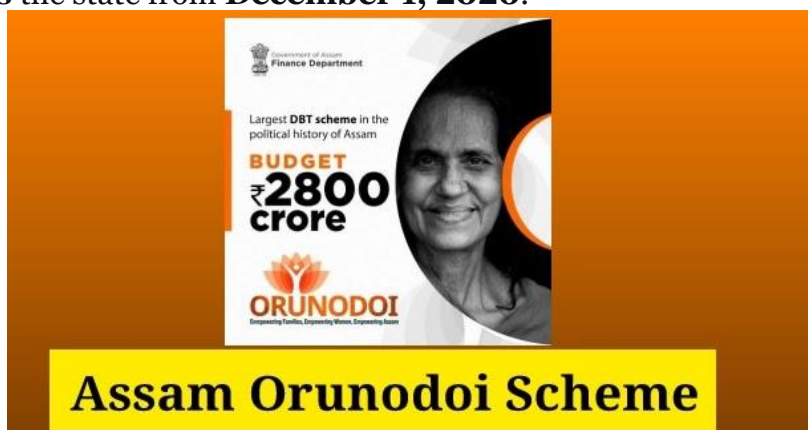
**Topic- GS Paper II– Governance (important Scheme)**

**Source- PIB**

## Orunodoi Scheme

### Why in the news?

- The **Assam government** has launched the **Orunodoi scheme** a massive **beneficiary scheme** by **covering almost 22 lakh families** across the state from **December 1, 2020**.



### About Orunodoi Scheme

- It is the **biggest ever Scheme in post-Independence Assam** because the Scheme would **strengthen the role of the women** as the money will be **deposited in the bank accounts** of the women of the families.
- The Scheme **announced in the state budget of 2020-21**.

### Direct Benefit Transfer (DBT) scheme

- It is a **cash transfer scheme** of the state in which the **beneficiaries will receive 830 rupees per month** in their bank accounts.
- The **monthly assistance** would support a family to buy **medicines worth Rs 400 per month**, **50 per cent subsidy of four kg pulses worth Rs 200**, **Rs 80 for sugar** and **essential vegetables and fruits worth Rs 150**.
- The Scheme will be **rolled out in 29 districts**.

### Significance of Orunodoi Scheme

- It is **first of its kind initiative** because the **state government has introduced a massive cash transfer programme** which is very close to the **initiative of Prime Minister universal basic income**.
- It is the **first of its kind in the country** as no other state has such a **high coverage of Direct Benefit Transfer (DBT) scheme** nor matches the **amount of cash transfer** that is being made.
- It marks a **paradigm shift** in the approach to **poverty alleviation programme** but where a **substantial cash transfer to poor households** shall enable them to **make informed decision to spend money on health and nutrition**.
- This is the **most extensive programme** by the **state government for women empowerment** as they will be **direct beneficiaries**.
- **Widow, unmarried or divorced women** and the **physically challenged** are usually considered a **burden in many households**, but



this will ensure that they are not a **liability**. Still, an **asset** and their **position** in the family will improve.

**Topic- GS Paper II– Governance (important Scheme)**

**Source- PIB**

### Mission Organic Value Chain Development for North East Region (MOVCD-NER)

**Why in the news?**

- **Arunachal** is **first in the country** to obtain **Organic Certification for Kiwi** under **Mission Organic Value Chain Development for North East Region (MOVCD-NER)**.



**About the Kiwi of Arunachal Pradesh**

- This fruit grows wild in **Arunachal Pradesh's Ziro Valley**.

**About Mission Organic Value Chain Development for North East Region (MOVCD-NER)**

- It is a **Central Sector Scheme**, a **sub-mission under National Mission for Sustainable Agriculture (NMSA)**, launched by the **Ministry of Agriculture and Farmers Welfare**.
- It has been **implemented in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura**, during the 12th plan period. The **Scheme aims to the development of certified organic production in a value chain mode to link growers with consumers** and to support the **development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative**.

**Mission Objectives**

- To **develop crop commodity-specific organic value chain** and **address gaps in organic crop production**, wild crop harvesting, organic livestock management and processing handling and marketing of organic agricultural products through:
- Developing crop-specific organic production clusters with necessary infrastructural, technical, and financial support
- By facilitating partnerships between farmers and organic businesses: Local enterprises and Farmer Producer Companies based on back-to-back long-term trade relations with clients in domestic and export markets.

- By providing an enabling environment for project initiatives and development programs with the necessary support for organic value chain development and create market access.

#### **About Organic certification**

- An **agricultural practise/product** is considered **organic** when there are **no chemical fertilisers or pesticides** involved in its **cultivation process**.
- Such **certificates in India** can be obtained after a **strict scientific assessment done** by the regulatory body, **Agricultural and Processed Food Products Export Development Authority (APEDA)**.

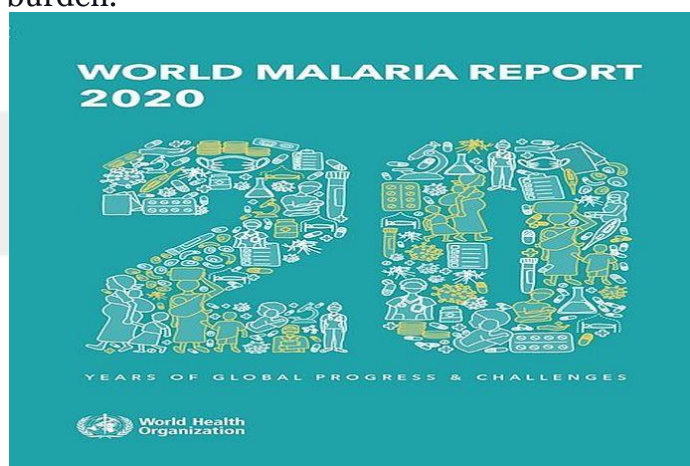
#### **Topic- GS Paper II– Governance (important Scheme)**

**Source- PIB**

### World Malaria Report 2020

#### **Why in the news?**

- The World Malaria Report (WMR) 2020 released by WHO, which gives the estimated cases for Malaria across the world, based on mathematical projections, indicates that India has made considerable progress in reducing its malaria burden.



#### **Highlights of the report**

- Countries in South-East Asia made substantial progress, with reductions in cases and deaths of 73% and 74%, respectively.
- According to the report, the South-East Asia Region accounted for about 3% of the burden of malaria cases globally.
- The report noted that the 11 highest-burden countries - Burkina Faso, Cameroon, the Democratic Republic of the Congo, Ghana, India, Mali, Mozambique, Niger, Nigeria, Uganda and Tanzania - account for 70% of the global estimated case burden and 71% of global estimated deaths from Malaria.
- Malaria cases reduced by 73% in the region, from 23 million in 2000 to about 6.3 million in 2019.

#### **India and the report**

- India is the only high endemic country which has reported a decline of 17.6% in 2019 as compared to 2018.

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- The Annual Parasitic Incidence (API) reduced by 27.6% in 2018 compared to 2017 and by 18.4% in 2019 as compared to 2018.
- India has sustained API less than one since the year 2012.
- India has also contributed to the largest drop in cases region-wide, from approximately 20 million to about 6 million.
- The percentage drop in the malaria cases was 71.8%, and deaths were 73.9% between 2000 to 2019.
- States of Odisha, Chhattisgarh, Jharkhand, Meghalaya and Madhya Pradesh disproportionately accounted for nearly 45.47 per cent of malaria cases and 70.54 per cent of falciparum Malaria cases in 2019. 64% of malaria deaths were also reported from these states.

### **India efforts for the elimination of Malaria**

#### **National Framework for Malaria Elimination**

- In 2016, the Ministry of Health and Family Welfare introduced its first National Framework for Malaria Elimination (2016-2030).

#### **National Strategic Plan for Malaria Elimination (2017-22)**

- It was launched by the Health Ministry in July 2017 which laid down strategies for the next five years.

#### **WHO initiation with India**

- WHO has initiated the **High Burden to High Impact (HBHI) initiative** in 11 high malaria burden countries, including India.
- Implementation of HBHI initiative has been started in four states, i.e. West Bengal and Jharkhand, Chhattisgarh and Madhya Pradesh in July 2019.

### **Topic- GS Paper II–Health Issue (Important Report)**

#### **Source-DD NEWS**

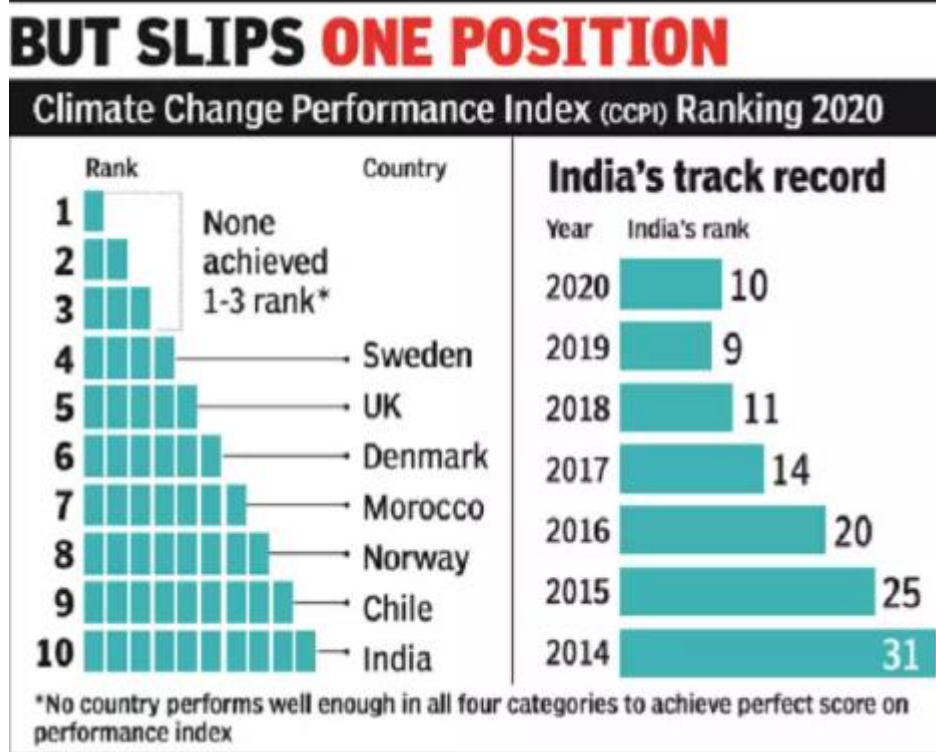
### **Climate Change Performance Index (CCPI) 2021**

#### **Why in the news?**

- Recently, **India has ranked high along with the European Union and the United Kingdom in the latest edition of the Climate Change Performance Index (CCPI).**

#### **Highlights of the index**

- According to the index, **no country is doing enough to meet the goals of the 2015 Paris Agreement.** The **biggest current emitter** of greenhouse gases (GHG) **China figures at 33rd rank.**
- Only two G20 countries - **the UK and India - are among the high rankers** while six others - the **USA, Saudi Arabia, Canada, Australia, South Korea, and Russia (52nd)** – are at the bottom of the index.
- The **United States, with a rank of 61, was the worst performer.**



### Indian and CPI

- **India**, for the **second time in a row**, continued to **remain in the top ten**.
- The **country scored 63.98 points out of 100**.
- Last year, **India** had been ranked at the **ninth position**, with an **overall score of 66.02**.
- It **received high ratings** on all **CCPI indicators** except ‘**renewable energy**’, where it was **categorised** as having a ‘**medium**’ performance.

### About the Climate Change Performance Index

- The **CCPI** is an **independent monitoring tool** for tracking countries’ **climate protection performance**.
- It has been published **annually since 2005**.
- The **CCPI** is developed by **not-for-profit organisations** **Germanwatch** and **NewClimate Institute** (Germany) together with the **Climate Action Network (CAN International)**.
- It is an **essential tool to enhance transparency** in international climate **politics** and **enables comparison of climate protection efforts** and progress made by **individual countries**.
- The **CCPI** **currently evaluates** and compares the **climate protection performance of 57 countries** and of the **European Union (EU)**, which are together responsible for more than **90% of global greenhouse gas (GHG) emissions**.
- The last country to be **added** was **Chile** for the **CCPI 2020**.

**The CCPI assesses countries’ performance in four categories:**

- **GHG Emissions** (40% of overall score),

- **Renewable Energy** (20% of overall score),
- **Energy Use** (20% of overall score) and
- **Climate Policy** (20% of overall score).

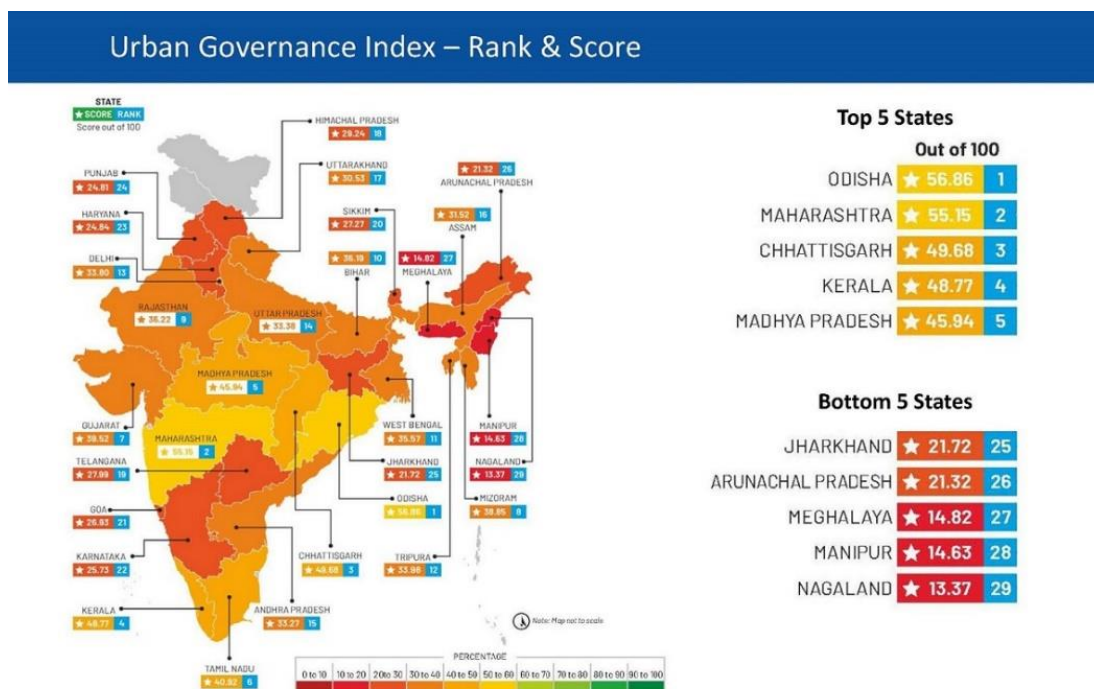
**Topic- GS Paper III– Environment**

**Source- Down to Earth**

**Urban Governance Index 2020**

**Why in the news?**

- The **Urban Governance Index 2020** has been recently released by **Praja Foundation**, a **Mumbai-based think tank**.



**Highlights**

- **Odisha** was ranked first in the index followed by **Maharashtra, Kerala, Madhya Pradesh, and Chhattisgarh**.
- **Jharkhand, Arunachal Pradesh, Meghalaya, Manipur, and Nagaland** performed the worst in the index.
- The **National Capital Territory (NCT) of Delhi** ranked 13th.

**About Urban Governance Index 2020**

- The index ranks states to indicate where they stand in terms of **real empowerment of grassroots democracy and local self-government**.

**Themes**

- The **ranking** is based on these **main themes**-
  - How empowered elected city representatives and legislative structures are?
  - How empowered the state’s city administration is?
  - How empowered the citizens are and finally, the financial empowerment and financial autonomy of the state?

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- The **Urban Governance Index 2020** spanned **three years (2017-2020)** in **40 cities across 28 states** as well as the **NCT of Delhi**.

**Topic- GS Paper II–Governance**

**Source- PIB**

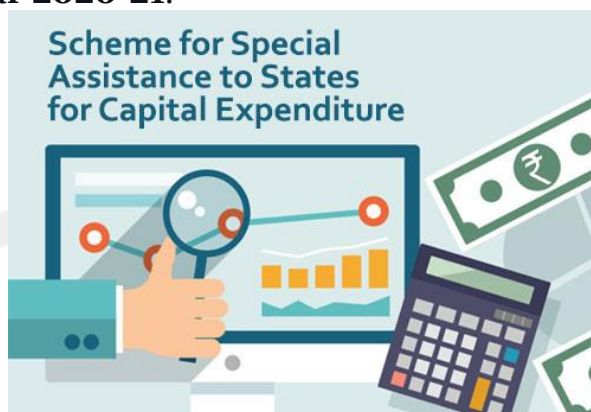
### ‘Special Assistance to States for Capital Expenditure’ Scheme

#### **Why in the news?**

- Recently, **all the States** except **Tamil Nadu** have **availed benefits** of the newly announced Scheme for **“Special Assistance to States for Capital Expenditure”**.

#### **Background**

- The **Finance Minister** announced the Scheme on **12th October 2020** as a part of the **AatmaNirbhar Bharat package**.
- The **Central government** has decided to **extend special assistance** to the **State Governments** in **respect of capital expenditure**, in the **financial year 2020-21**.



#### **About the Special Assistance to States for Capital Expenditure Scheme** **The Scheme has three parts.**

- ✓ Part –I of the Scheme covers the north-eastern region:
  - Under this Part, Rs.200 crores is allocated to 7 north-eastern States (Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura).
  - Because of higher population and geographical area, Assam has been allocated Rs.450 crores under the Scheme.
- ✓ Part-II of the Scheme:
  - It included all other States other than not included in Part-I.
  - The amount has been allocated amongst these States in proportion to their share of central tax as per the interim award of the 15th Finance Commission for the year 2020-21.
- ✓ Part-III of the Scheme
  - It is aimed at pushing various citizen-centric reforms in the States.
  - Under this Part, an amount of Rs.2000 crores is earmarked.
  - This amount will be available only to those States who carry out at least 3 out of the four reforms specified by the Ministry of Finance in its letter dated 17th May 2020 regarding reform linked additional borrowing permissions.

- The four reforms are –
  - One Nation One Ration Card
  - Ease of Doing Business Reform
  - Urban Local Body/ Utility Reform and
  - Power Sector Reform

### Benefits

- The Scheme is **aimed at boosting capital expenditure** by the **State Governments** who are **facing challenging economic environment** this year due to the **shortfall in tax revenue** arising from the COVID 19 pandemic.
- The **capital Expenditure** has a **higher multiplier effect**, **enhancing the future productive capacity of the economy**, and results in a **higher rate of economic growth**.
- The **capital expenditure projects** have been **approved in diverse sectors of the economy** like **Health, Rural Development, Water Supply, Irrigation, Power, Transport, Education, Urban Development**.

Topic- GS Paper III– Economy

Source- PIB

### Recognition Scheme for Hygiene Rating Audit Agencies

Why in the news?

- **Quality Council of India (QCI)** has recently come out with a **Scheme for approval of Hygiene Rating Audit Agencies** to scale up **Hygiene Rating** by increasing the number of recognised **Hygiene Rating Audit Agencies** in the country.



### About the Recognition Scheme for Hygiene Rating Audit Agencies

- The scheme **aims to allow consumers to make informed choices/decisions** pertaining to the food outlets where they **eat by encouraging food businesses** to improve their **hygiene and safety standards**.

How does it work?

- The **food establishments** are rated **based on food hygiene and safety conditions** observed at the time of the audit.

- The **hygiene rating** will be in the **form of smileys (1 up to 5)**, and the certificate should be **displayed prominently** in the **consumer-facing area**.
- The **recognised Hygiene Rating Audit Agencies** will be responsible for **verifying the compliance** with **food hygiene and safety procedures** laid by **FSSAI** and **get Hygiene Rating**.
- Currently, this **scheme is applicable for Foodservice establishments** (such as hotels, restaurants, cafeteria, Bhabha's, etc.), **sweet shops, bakeries and retail meat stores**.

#### Benefits

- **Hygiene Rating Scheme** can be **instrumental in creating awareness** amongst the **consumers and developing a culture of self-compliance** amongst **food business operators**.
- It will improve the **quality of the food supply and increase demand** as well.
- It will help in **enhancing the confidence of the Indian consumer** and **food service operators in the basic hygiene and quality of the food**.

#### Topic- GS Paper II–Governance

Source-PIB

### Human Development Index (HDI)

#### Why in the news?

- **India ranked 131 among 189 countries** on the **Human Development Index (HDI) for 2019**, slipping two places from the previous year, according to the **Human Development Report (HDR) 2020** released by the **United Nations Development Program (UNDP)**.

#### Miles to go

Though India improved its absolute value of the Human Development Index (0.645 in 2019 from 0.642 the previous year), it dropped a place in the overall ranking

Country	HDI rank (2019)	Change from 2018
Russia	52	-3
Sri Lanka	72	1
Brazil	84	0
China	85	2
South Africa	114	1
<b>India</b>	<b>131</b>	<b>-2</b>
Bangladesh	133	1
Nepal	142	1
Pakistan	154	0

#### Key Highlight of the index

- **Norway topped the index**, followed by **Ireland** and **Switzerland**.
- **Hong Kong** and **Iceland** complete the **top five**.



### Asia high human development Countries

- **Sri Lanka (72), Thailand (79), China (85) and Indonesia and Philippines (both 107), and Vietnam (117),** among others, were "**high human development**" countries.

### Medium Human Development Countries

- **India, Bhutan, Bangladesh, Myanmar, Nepal, Cambodia, Kenya, and Pakistan** were ranked among countries with "**medium human development**" with ranks between **120 and 156 among the 189-countries.**
- In the **BRICS grouping, Russia** was 52 in the human development index, Brazil 84, and China 85.

### India and HDI

- **India's HDI value for 2019 is 0.645,** which puts the country in the **medium human development category,** positioning it at **131 out of 189 countries** and territories.
- Between **1990 and 2019, India's HDI value increased from 0.429 to 0.645, an increase of 50.3%.**
- **India's GNI per capita increased by about 273.9% between 1990 and 2019.**

### Life Expectancy

- **Life expectancy for Indian's at birth was 69.7 years in 2019,** slightly lower than the **South Asian average of 69.9 years** but slightly higher than the **average of medium human development index groupings in the world at 69.3 years.**

### India's green energy initiatives

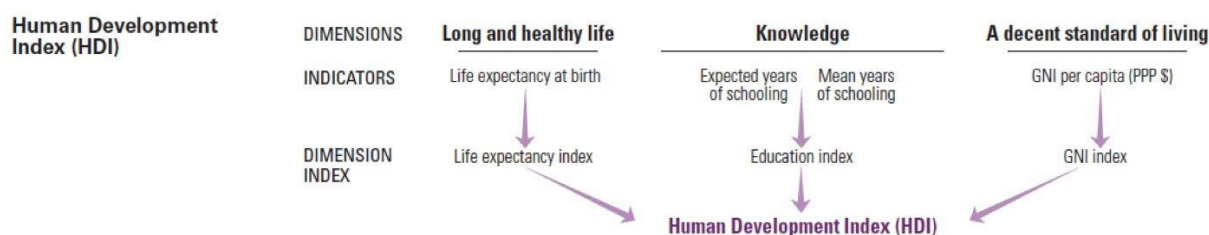
- **Solar capacity in India increased from 2.6 gigawatts in March 2014 to 30 gigawatts in July 2019,** achieving its **target of 20 gigawatts** four years ahead of schedule.
- **In 2019, India ranked fifth for installed solar capacity.**

### Multidimensional Poverty Index

- The **most recent survey data publicly available for India's MPI (Multidimensional Poverty Index) estimation refer to 2015-2016.**
- In **India, 27.9%** of the populations are **multi-dimensionally poor,** while an additional **19.3% are classified** as vulnerable to **multidimensional poverty.**

### About the Human Development Index

- It is a **statistical tool** used to measure a **country's overall achievement** in its **social and economic dimensions,** which has been published by the **United Nations Development Programme (UNDP).**
- It is part of the Human Development Report.
- HDI measures the **average achievement of a country in three basic dimensions of human development:**
  - A long and healthy life.
  - Access to knowledge.
  - A decent standard of living.



### Background

- The **HDI was developed by Indian economist Amartya Sen and Pakistani economist Mahbub ul Haq**, which was further used to measure the **country's development by the United Nations Development Program (UNDP)**.
- The **2010 Human Development Report** introduced an **Inequality-adjusted Human Development Index (IHDI)**.

Topic- GS Paper II– Governance

Source- The Hindu

### Kisan Kalyan Mission

#### Why in the news?

- The **Uttar Pradesh government** has decided to launch '**Kisan Kalyan Mission**' to double the income of farmers.

#### About the Kisan Kalyan Mission

- 'It is a **special program** to double the income of farmers which will **cover all assembly constituencies of the state**.
- Under the Kisan Kalyan mission, various **programs will be organized across the state**.



- **Exhibitions of agriculture and Associate sectors** will be organized, which will **include the products of Micro, Small & Medium Enterprises (MSME) sector** units and livelihood missions.
- Under the Kisan Kalyan mission, **many departments of state government** like **agriculture marketing Mandi Parishad, Horticulture, animal husbandry, fisheries, sugarcane food and supply, and Panchayati Raj** will work together.

Topic- GS Paper II– Governance

Source- AIR

## Human Freedom Index 2020

### Why in the news?

- Recently, the **Human Freedom Index 2020** was released by the Cato Institute in the United States and Fraser Institute in Canada.



### Key Highlights of the index

- The Human Freedom Index 2020, which uses data from 2008 to 2018, noted a decrease in personal freedoms since 2008 globally.
- This sixth annual index uses 76 distinct indicators of personal and economic freedom in the following areas:
  - Rule of Law Security and Safety
  - Movement
  - Religion
  - Association, Assembly, and Civil Society
  - Expression and Information
  - Identity and Relationships
  - Size of Government
  - Legal System and Property Rights
  - Access to Sound Money
  - Freedom to Trade Internationally
  - Regulation of Credit, Labor, and Business
- It provides a **human rating on a scale of 0 to 10**, where 10 represents more freedom, the average human freedom rating for 162 countries in 2018 was 6.93

### Global Performance

- **New Zealand was ranked one in the index**, followed by Switzerland and Hong Kong.
- The index put **China at 129** due to the **Chinese Communist Party's unprecedented intervention in Hong Kong in 2019 and 2020**.
- Bangladesh got 139 and Pakistan at 140 in this index.
- **The three least-free countries** in descending order are **Venezuela, Sudan, and Syria**.
- The report added that out of 10 regions, the regions with the **highest levels of freedom** are North America (Canada and the United States), Western Europe and East Asia.

- **Women-specific freedoms** are strongest in North America, Western Europe, and East Asia and are least protected in the Middle East and North Africa, sub-Saharan Africa, and South Asia.

### **India's performance in Human Freedom Index 2020**

- India was ranked 111th out of the 162 countries under personal, civil and economic freedom.
- India was ranked 110 in terms of personal freedom and 105 on economic freedom, with an overall score of **6.43 out of 10**.
- India ranks above neighbours Pakistan (140), Bangladesh (139) and China (129) but below Bhutan (108), Sri Lanka (94) and Nepal (92).

**Topic- GS Paper II– Issue of Social Sector/Services.**

**Source- The Hindu**

### **Post Matric Scholarship to Students belonging to Scheduled Castes (PMS-SC)**

#### **Why in the news?**

- The **Union Cabinet** has recently **approved major changes** in the '**Post Matric Scholarship to students belonging to Scheduled Castes (PMS-SC)**' to benefit more than 4 Crore SC students in the next five years.



#### **About Post Matric Scholarship to students belonging to Scheduled Castes**

- It is a **Centrally Sponsored Scheme**.

#### **Objective**

- The scheme aims to **provide financial assistance to the Scheduled Caste students studying at post matriculation or post-secondary stage** to complete their education.
- The scheme will be **run on an online platform** with **robust cybersecurity measures** that **assure transparency and timely delivery of the assistance**.
- The States will **undertake fool-proof verification** of the **eligibility, caste status, Aadhar identification and bank account details** on the online portal.
- **Transfer of financial aid to the students under the scheme** shall be on **DBT mode**, preferably using the **Aadhar Enabled Payment System**.
- Starting from 2021-22, the **Central share (60%) in the scheme** would be **released on DBT mode** directly into the **students' bank accounts**.

### **Monitoring Mechanism**

- The **monitoring mechanism** will be **further strengthened** by **conducting social audits, annual third-party evaluation, and half-yearly self-audited reports** from each institution.
- The **Central Assistance around Rs 1100 crore** annually during **2017-18 to 2019-20** would be **increased more than five times** to be around **Rs 6000 core annually** from **2020-21 to 2025-26**.

### **Increase in Gross Enrolment Ratio**

- The **Gross Enrolment Ratio (higher education)** among the **SCs** has **increased from six per cent in 2002-03 to 23 per cent in 2018-19**.

**Topic- GS Paper III– Education**

**Source- Indian Express**

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## Art and Culture

### 21st edition of the Hornbill Festival

#### Why in the news?

- This year, amid the **global coronavirus pandemic**, **21st edition of the Hornbill Festival in Nagaland** will be conducted through a virtual platform from **December 1 to 5 2020**.



#### About Hornbill Festival

- It is **organized by the State Tourism and Art & Culture Departments of Nagaland** annually in the **first week of December**.
- The festival was first held in the **year 2000**. It is called as '**festival of festivals**'.
- The festival is named after the **bird – Hornbill** which is the **most revered and admired bird for the Nagas**.
- It **aims to encourage inter-tribal interaction** and **promote the cultural heritage of Nagaland**.

#### State Bird

- The **great hornbill** is the **state bird of Chin State in Myanmar, and Kerala and Arunachal Pradesh in India**.
- **Blyth's tragopan** is the **state bird of Nagaland**.

#### About Hornbill

- **India** is home to **nine species of hornbills**, of which two are endemic.
- It is referred to as '**forest engineers**' or '**farmers of the forest**' for playing a **pivotal role in dispersing seeds of tropical trees**.
- The **Great Hornbill** occurs in **north, north-east and south India**, apart from **Nepal, Bhutan, and Bangladesh**.

#### Conservation Status of Hornbills

- The **Rufous-necked Hornbill** is listed as '**Vulnerable**' by the IUCN.
- The **Great Hornbill, Brown Hornbill** and the **Malabar Pied Hornbill** are listed under the **Near threatened** by IUCN.
- Other **Hornbill species in India** are listed as '**Least Concern**'.
- **Six species of hornbills** are listed in **Schedule I of the Wildlife Protection Act of India 1972**.

- These six species are the Great Hornbill, Rufous-necked Hornbill, Wreathed Hornbill, Narcondam Hornbill, Oriental Pied Hornbill, and the Brown Hornbill.

**Topic- GS Paper II- Art and Culture + environment**

**Source- PIB**

### Tharu tribes

#### **Why in the news?**

- The **Uttar Pradesh government** has recently embarked upon a scheme called ‘**homestay scheme**’ to take the unique culture of its **ethnic Tharu tribe** across the world.



#### **About the Tharu people**

- The word tharu is believed to be derived from sthavir, meaning followers of Theravada Buddhism.
- The community belongs to the **Terai lowlands**, amid the **Shivaliks or lower Himalayas**.
- Most of them are **forest dwellers and some practised agriculture**.

#### **Languages**

- They **speak various dialects of Tharu**, a language of the **Indo-Aryan subgroup**, and variants of **Hindi, Urdu, and Awadhi**.
- In central **Nepal**, they talk about a **variant of Bhojpuri**, while in eastern Nepal; they talk about a **variant of Maithili**.

#### **Worship**

- **Tharus worship Lord Shiva as Mahadev** and call their supreme being “**Narayan**”, who they believe is the **provider of sunshine, rain, and harvests**.
- Tharu women have **more substantial property rights** than can women in **mainstream North Indian Hindu custom**.

#### **Distribution**

- The **Tharus live in both India and Nepal**.
- In the **Indian Terai**, they live **mostly in Uttarakhand, Uttar Pradesh, and Bihar**.
- According to the **2011 census**, the **Scheduled Tribe population in Uttar Pradesh was more than 11 lakhs**; now this number is estimated to have crossed 20 lakhs.

## Related Information

### About homestay scheme

- In this scheme, the **state government is working to connect Tharu villages** in the districts of **Balrampur, Bahraich, Lakhimpur and Pilibhit bordering Nepal**.
- The idea is to **offer tourists an experience of living in the natural Tharu habitat**, in **traditional huts** made of grass collected mainly from the forests.

### Benefits

- **Tharu homeowners** will be able to **charge tourists directly** for the **accommodation and home-cooked meals**.

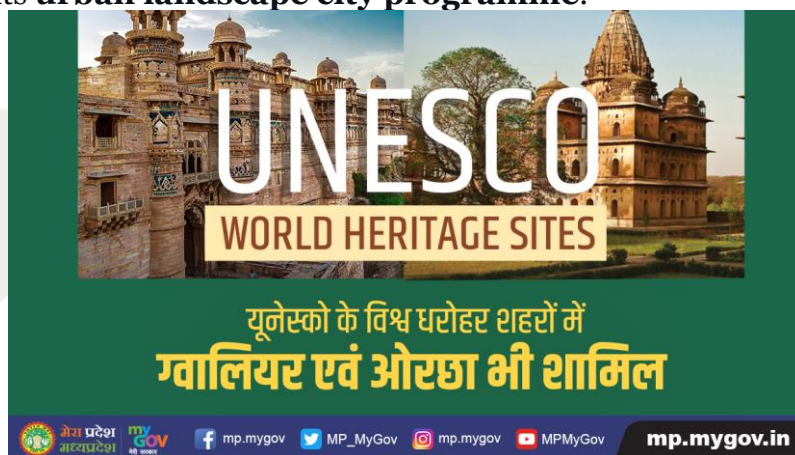
Topic- GS Paper I– Art and Culture

Source- AIR

## Gwalior & Orchha included in the list of World Heritage City by UNESCO

### Why in the news?

- Recently, the **historical fort cities of Gwalior and Orchha in Madhya Pradesh** have been included in the list of **UNESCO's world heritage cities** under its **urban landscape city programme**.



### About Orchha

- It is in the **Bundelkhand region of Madhya Pradesh**.
- **Orchha** is famous for its **temples and palaces** and was the capital of the **Bundela kingdom** in the **16th century**.
- The **famous spots** in the town are **Raj Mahal, Jehangir Mahal, Ramraja Temple, Rai Praveen Mahal, and Laxminarayan Mandir**.

### About Gwalior

- **Gwalior city** has been the capital of **Gurjar Pratihara, Tomara, Baghel Kachhwaha and Scindia Rajvansh**.
- The **ancient signs left** by them will be found in the **form of monuments, forts, palaces**.



## Related Information

### About UNESCO World Heritage site

- These **sites are the places** which have been **officially recognized by a specialized agency** of the **UN (United Nations)**, UNESCO based on their natural, cultural, historical, and scientific importance

### About United Nations Educational, Scientific and Cultural Organization

- It is a **specialized agency of the UN**, whose **objective is to contribute to peace and security** by promoting **international collaboration** through **educational, scientific, and cultural reforms**.
- It is in **Paris, France**. The list of **World Heritage sites** is maintained by **World Heritage Programme** which is **administered by the UNESCO World Heritage Committee**.

### About UNESCO World Heritage Committee

- It is **composed of 21 UNESCO member states** which are **elected by the UN General Assembly**.
- These are **areas of importance of cultural or natural heritage** as described in the **UNESCO World Heritage Convention, 1972**.

### Topic- GS Paper I–Art and Culture

Source- AIR

## UN Population Award 2020

### Why in the news?

- Recently, **NGO HelpAge India** received the **"2020 UN Population Award"** in the **institutional category** for its **contribution towards serving disadvantaged elderly people and raising awareness** on their cause.
- **Bhutan's Queen Mother Gyalyum Sangay Choden Wangchuck** was given the **2020 United Nations Population Award** in the **individual category** for her work on **sexual health and gender violence**.



### About the UN Population Award

- The award was **established by the United Nations General Assembly (UNGA) in 1981**.
- It was **first presented in 1983**.
- The **Committee for the United Nations Population Award** honours an **individual and/or institution** in recognition of **outstanding**

**contributions to population and reproductive health** questions and to their solutions.

- It consists of a **gold medal, a diploma, and a monetary prize.**

#### **Members**

- The **Committee for the United Nations Population Award** is comprised of **10 UN Member States**, with **United Nations Secretary-General** and **UNFPA Executive Director** serving as **ex-officio members.**

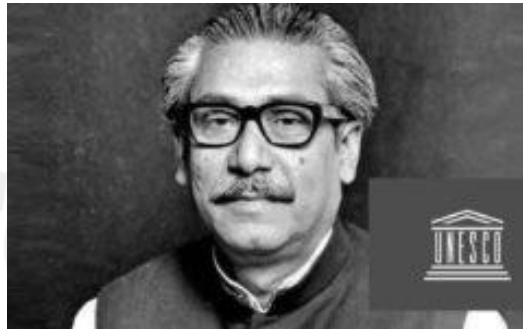
**Topic- GS Paper I–Art and Culture**

**Source- UN**

#### **UNESCO Creative Economy award**

##### **Why in the news?**

- The **United Nations Educational, Scientific and Cultural Organization (UNESCO)** has recently decided to launch an international prize in the field of "**creative economy**" in the name of **Bangabandhu Sheikh Mujibur Rahman.**



##### **About UNESCO Creative Economy award**

- This award will be starting in **November 2021.**
- It will be given away once in **two years for global economic initiatives** of the youth.
- The award **will recognize exceptional initiatives** taken by cultural workers and organizations in the development of the **creative economy.**

##### **Related Information**

##### **About Bangabandhu Sheikh Mujibur Rahman**

- Sheikh Mujibur Rahman was a **Bangladeshi politician and statesman.** He is called the "**Father of the Nation**" in Bangladesh.
- He served as the **first President of Bangladesh** and later as the **Prime Minister of Bangladesh from 17 April 1971** until his assassination on **15 August 1975.**
- He is the **driving force behind the independence of Bangladesh.**
- He is popularly dubbed with the title of "**Bangabandhu**" (meaning 'Friend of Bengal') by the people of Bangladesh.

##### **Note:**

- **UNESCO** has declared 2021 as "**International Year of Creative Economy for Sustainable Development**".

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**Source- AIR**

## Indigenous Games

### Why in the news?

- The Sports Ministry has recently approved the inclusion of four Indigenous Games to be a part of Khelo India Youth Games 2021, scheduled to take place in Haryana.
- The games include **Gatka, Kalaripayattu, Thang-Ta and Mallakhamba.**



### About these indigenous games

#### **Kalaripayattu**

- It has its origin from Kerala and has practitioners all over the world.

#### **Mallakhamb**

- It has been well-known across India.
- Madhya Pradesh and Maharashtra have been the hotspots of Mallakhamb.

#### **Gatka**

- It originates from the State of Punjab, and this traditional fighting style of the Nihang Sikh Warriors is used both as self-defence as well as a sport.

#### **Thang-Ta**

- It is a Manipur martial art and will get national recognition again with the help of the Khelo India Youth Games 2021.

### Topic- GS Paper I–Art and Culture

### Source-PIB

## 'Legion of Merit' award

### Why in the news?

- US President Donald Trump has recently presented the prestigious Legion of Merit award to Prime Minister Narendra Modi for his leadership in elevating strategic partnership of the two countries and emergence of India as a global power.

### About Legion of Merit award

- It is a military award of the United States Armed Forces that is given for exceptionally meritorious conduct in the performance of outstanding services and achievements.
- It is the highest degree Chief Commander of the Legion of Merit which is given only to the Head of State or Government.



### Other who received Legion of Merit award

- The US President also presented the Legion of Merit to Australian Prime Minister Scott Morrison and the former Japanese Prime Minister Shinzo Abe.
- Their respective ambassadors received the awards in Washington DC.

### Topic- GS Paper I–Art and Culture

Source- AIR

### Zomi: An Ethnic group of Manipur

#### Why in the news?

- Recently, **Manipur's Zomi ethnic group has renewed its demand for the creation of Zoland Territorial Council (ZTC) under the Sixth Schedule of the Constitution, a self-administered zone on the lines of the Bodoland Territorial Council in Assam.**



- In **India**, they live with and are **similar in language** and habits to the **Paite and the Simte peoples**.
- In **India**, the **Zou are officially recognized** as one of the **thirty-three indigenous people** within the **state of Manipur** and are one of the **Scheduled tribes**.
- The Zous can be found in **different parts of India** and of the world.
- According to the **2001 Census**, the **Zou/Jou population in Manipur** is around 20,000, **less than 3% of the population**.

- The community is concentrated in **Churachandpur and Chandel districts** of Manipur.

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**Source-Indian Express**

### Monpa Handmade Paper

**Why in the news?**

- Recently the **1000-year-old heritage art** – the **Monpa Handmade Paper of Arunachal Pradesh** – which was driven to the **extinction**, has come to life once again, with **Khadi and Village Industries Commission (KVIC)**.



**About the Monpa Handmade Paper**

- It is a **fine-textured handmade paper** called **Mon Shugu** in the local dialect, which is **integral to the vibrant culture** of the local tribes in **Tawang, Arunachal Pradesh**.
- The **Monpa handmade paper** will be made from the bark of a **local tree called Shugu Sheng**, which has **medicinal values too**.

**Historical Significance**

- The paper has **significant historical and religious significance** as it is the paper used for **writing Buddhist scriptures and hymns in monasteries**.
- These papers were selling in the countries like **Tibet, Bhutan, Thailand, and Japan** as **no paper making industry existed** in these countries.
- However, the **local sector gradually began declining**, and the **indigenous handmade paper** was taken over by **inferior Chinese paper**.

**Topic- GS Paper I–Art and Culture**

**Source- PIB**

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