UPSC Monthly Current Affairs
October 2020

gradeup

Art and Culture

Sawantwadi Toy
Why in the news?
- Recently to **mark the occasion of 151 years** of **postcards in India**, **Maharashtra Circle of India Post** will release picture postcards on 'Sawantwadi Toys' on October 1.

About Sawantwadi toys
- It refers to **hand made works of art made of wood** in **Sawantwadi a town** in **Sindhudurg district of Maharashtra.**
- Most of these toys are made in the **village of Kolgaon in Sawantwadi taluka**.
- These toys are made from the wood of the **Indian Coral tree (Erythrina variegata).**
- **Craftsmen** who make these toys belong to the **Chittari community** who came to **Sawantwadi from Karwar and Goa.**

Topic- GS Paper I–Art and Culture
Source-PIB

Pakur Honey
Why in the news?
- **Minister of Tribal Affairs** has launched **Pakur Honey** on the **occasion of Gandhi Jayanti.**

About Pakur Honey
- It is a **100% natural honey** which is **Multi Floral and Forest Fresh**.
- It is **gathered by Santhal Tribals and Vulnerable Pahadhiya tribes** from **Pakur, Jharkhand.**
- The **collection of honey** is carried out in an **eco-friendly manner on sustainable basis** by the **local youth.**
- **Pure Multiflora Honey** is collected from a **variety of flowers and floras.**
- Natural Multiflora honey is a **good source of antioxidants and antiseptic vitamins, nutrients, enzymes,** and other herbal properties that **no other super-food can provide.**
- It will be **available in two different tastes**, i.e., **Karanj and Multifloral (Wild)**

Topic- GS Paper I–Art and Culture
**Source – DD News**

Sanskrit
Why in the news?
- **Uttar Pradesh government** has started issuing **significant press releases**, especially the speeches of **Chief Minister Yogi Adityanath**, in **Sanskrit language, besides English, Hindi** and **Urdu.**

About Sanskrit
- Sanskrit is an **Indo-Aryan language.**
- It is the **primary liturgical language** of **Hinduism and the predominant language** of **most works of Hindu philosophy** as well as some of the principal texts of **Buddhism and Jainism**.
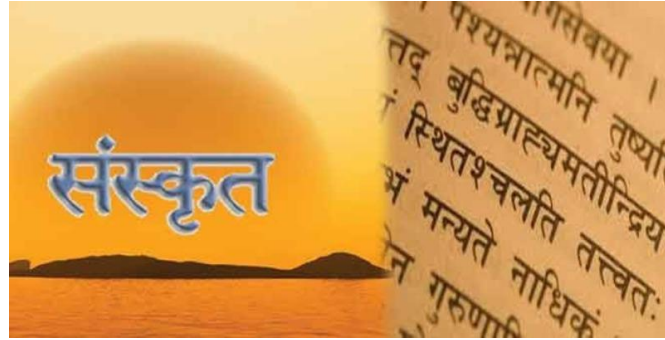
- **Modern Sanskrit** is traceable to the **2nd millennium BCE** in a **form known** as **Vedic Sanskrit**, with the **Rigveda as the earliest-known composition.**
- A more **refined and standardized grammatical** form called **Classical Sanskrit emerged** in the **mid-1st millennium BCE** with **the Aṣṭādhyāyī treatise of Pāṇini**.
- It is one of the **22 languages** listed in the **Eighth Schedule of the Constitution of India**.
- In the **2011 Census of India, 24,821 Indians** out of about **1.21 billion reported Sanskrit** to be **their mother tongue**.

- Some of the **eminent Sanskrit authors are Panini, Patanjali, Adi Shankaracharya, Ved Vyas, Kalidas** etc.
- **The only Sanskrit newspaper** in the world is called '**Sudharma**'.
- The newspaper has been **published since 1970** from **Mysuru in Karnataka** and is also available online.
- In **1786, English Philologist William Jones** suggested in his book '**The Sanscrit Language**'that Greek and Latin were related to Sanskrit.

Note:
- In modern times, the **first Sanskrit University** was **Sampurnanand Sanskrit University**, established in **1791 in the Indian city of Varanasi**.
- The **Sanskrit Diwas 2020** was celebrated on **3rd August**.

Topic- GS Paper I–Art and Culture
Source-PIB

Kasturi Cotton

Why in the news?
- **Union Minister of Textiles** launched the **1st ever Brand & Logo** for **Indian Cotton** on **2nd World Cotton Day on 7th October**.
- Now, the **India's premium Cotton** would be known as **'Kasturi Cotton'** in the **world cotton Trade**.
- The Kasturi Cotton brand **will represent Whiteness, Brightness, Softness, Purity, Luster, Uniqueness and Indianness.**

Related Information
- **India is the 2nd largest cotton producer** and th**e largest consumer of cotton in the world after China.**
- **India** produces about **51% of the total organic cotton** production of the world, which **demonstrates India's effort towards sustainability**.
- Accordingly, **Ministry of Textiles** through **APEDA under Ministry of Commerce and Industry** has prescribed a **certification system for organic Cotton** which will be introduced in phases in the **entire textile value chain.**
- Similarly, prescribing a **certification system for non-organic Cotton** has also been taken up with **APEDA so that usages of cotton** can be suitably augmented.

Cott-Ally

- Recently a mobile app, **"Cott-Ally"** has been developed by **Cotton Corporation of India (CCI)** for providing **latest news regarding weather condition**, Crop situation and best farm practices.

About World Cotton Day

- The **2nd World Cotton Day** was observed on **7th October 2020.**

Background

- It is the **initiative of the Cotton-4** (Benin, Burkina Faso, Chad and Mali) countries.
- The **World Trade Organization** had been hosted **1st World Cotton day** on **7 October 2019** with the **collaboration he UN FAO UNCTAD**, the **International Trade Centre (ITC)** and the **International Cotton Advisory Committee (ICAC).**

Objective

- To **recognize the importance of cotton** as a **global commodity** grown in over **75 countries across five continents** and to highlight its **central role in job creation** and **maintaining economic stability** in several **least-developed countries.**

Topic- GS Paper I—Art and Culture
Source-PIB

Kamdhenu Deepawali Abhiyan
Why in the news?

- **Rashtriya Kamdhenu Aayog (RKA)** has started a **nation- wide campaign** to celebrate **"Kamdhenu Deepawali Abhiyan"** this year on **Deepawali festival.**

About Kamdhenu Deepawali Abhiyan
- Through this **campaign, RKA** has been **interacting with various stakeholders** through a **series of webinars to focus and promote** use of cow-dung in manufacture of items that can be used in this year's Deepawali.

- RKA has **enhanced its presence** through their **representatives in every district across all States** for the campaign to **motivate and facilitate production** of **Kamdhenu Deepawali** related items in **Gaushalas all over the country** along with **nationwide marketing plan.**
- Various segments of stakeholders like **farmers, manufacturers, entrepreneurs, Gaushalas** and other concerned are **being involved at large** to make the **campaign of Kamdhenu Deepawali** a grand success.

Related Information

About Rashtriya Kamdhenu Aayog
- **Rashtriya Kamdhenu Aayog** has been constituted for the **conservation, protection and development of cows** and their **progeny and for giving direction** to the **cattle development programmes**.
- RKA is **high powered permanent body** to **formulate policy and to provide direction** to the **implementation of schemes** related to cattle to give more emphasis on **livelihood generation.**

Note:
- Recently, the **RKA had launched a nation-wide campaign** on various platforms of social media to **use eco-friendly material in manufacture of idols** of **Lord Ganesha** for this **year's Ganesha Festival** on **appeal of the Prime Minister.**
- It generated a **considerable interest in various stakeholders** like dairy farmers / unemployed youth / women and young entrepreneurs / Gaushalas/ Gopalaks / Self Help Groups etc.

Topic- GS Paper I−Art and Culture
Source- PIB

Peru's famous Nazca Lines

Why in the news?
- Recently **Peru's famous Nazca Lines** , a **UNESCO World Heritage Site** known for its **depictions of larger-than-life animals**, plants and

imaginary beings, grabbed the spotlight on social media recently after the discovery of a hitherto unknown massive carving –– that of a resting cat on the slope of a steep hill.

What are the Nazca Lines?

- The **Nazca Lines** are a **group of geoglyphs**, or large designs made on the ground by creators using elements of the landscape such as stones, gravel, dirt, or lumber.

- These are believed to be the greatest known **archaeological enigma**, owing to their size, continuity, nature, and quality.
- The images on the ground are so big in size that the best way to get a full view of them is overflying them.
- Drawn more than 2 millennia ago on the surface of southern Peru's arid Pampa Colorada **("Red Plain" in Spanish), the geoglyphs feature different subjects, but mainly plants and animals.**
- The figures include pelicans (the largest ones sized around 935 feet long), Andean Condors (443 feet), monkeys (360 feet), hummingbirds (165 feet), and spiders (150 feet).
- There are also geometric shapes, such as triangles, trapezoids and spirals, and some have been associated with astronomical functions.

Background
- The Lines were **first discovered in 1927 and** were declared a World Heritage Site by **UNESCO in 1994.**
- The site is around 450 km away from **capital Lima southwards along the South Pan-American Highway.**

Topic- GS Paper I–Art and Culture
Source- Indian Express

"Life in Miniature" project
Why in the news?
- **Union Minister of State for Culture and Tourism** has recently virtually launched **"Life in Miniature" project**, collaboration **between the National Museum, New Delhi, Ministry of Culture,** and **Google Arts & Culture**.
- It is part of **Prime Minister's 'Digital India' initiative** and the **role of technology in the preservation of India's heritage.**

Related Information
About the Life in Miniature" project
- Under the **project there are several hundred miniature paintings** from the **National Museum; New Delhi** can be viewed online on **Google Arts & Culture by people** around the **world in a new project titled "Life in Miniature."**
- The project **uses technologies like machine learning**, augmented reality, and digitization with **high-definition robotic cameras**, to showcase these **special works of art** in a **magical new way**.
- **On the Google Arts & Culture app,** online viewers can experience the **first Augmented Reality-powered art gallery** designed with **traditional Indian architecture** and explore a **life-size virtual space** where you can walk up to a **selection of miniature paintings**.
- The artworks showcased are presented along five universal themes of the **human relationship** with **nature, love, celebration, faith, and power.**

About the National Museum
- The **National Museum, New Delhi**, under the **Ministry of Culture, Government of India**, is the **premiere cultural institution** of the **Nation.**
- The **National Museum,** presently, has in its **possession over 2,00,000 antiquities & art objects,** both of **Indian and Foreign origin** covering **more than 5,000 years** of **our cultural heritage**.

About Google Arts & Culture
- Google Arts & Cultureputs the **collections of more than 2,000 museums** at one's fingertips.
- It is an **immersive way** to **explore art, history,** and the **wonders of the world**. The Google Arts & Culture **app are free and available online**.

Topic- GS Paper I–Art and Culture
Source- PIB

Evidence of dairy production in the Indus Valley Civilisation
Why in the news?
- Recently the **year 2020 marks 100 years of discovery of Indus Valley Civilisation,** and the **latest study has shown that dairy products** were being produced by the **Harappans as far back as 2500 BCE.**

Key findings
- By analyzing residues on **ancient pots**, researchers show the **earliest direct evidence of dairy product processing**, thus throwing **fresh light on the rural economy of the civilization.**

- The studies were carried out on **59 shards** of pottery **from Kotada Bhadli, a small archeological site in present-day Gujarat.**
- They studied the **tooth enamel from fossils of cattle**, **water buffalo, goat and sheep** found in the area.
- **Cows and water buffalo** were found to **consume millets, while sheep and goats** ate nearby grass and leaves.

Having surplus dairy production
- The **Harappans** did not just **use dairy for their household**.
- The **large herd indicates that milk** was produced in surplus so that it could be exchanged and there could have been trade between settlements.

Technique used
Carbon isotope studies
- The **team used molecular analysis techniques** to study the residues from **ancient pottery**.
- As **pots are porous**, as soon as we put **any liquid form of food**, it will absorb it.
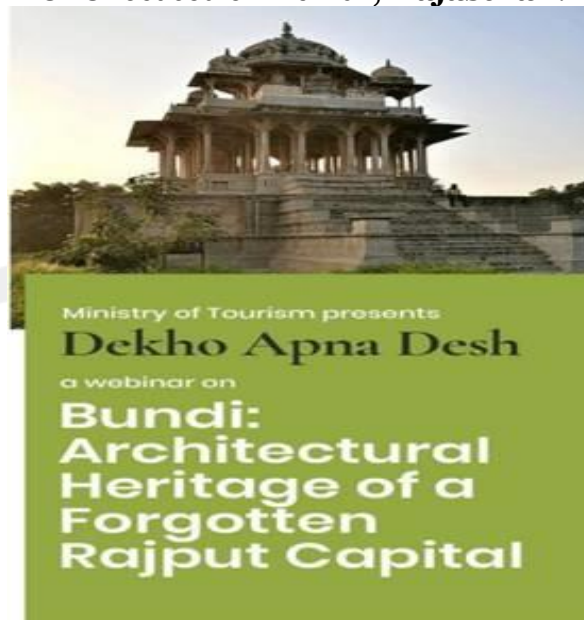- The **pot preserves the molecules** of food such as **fats and proteins.**

Topic- GS Paper I–History
Source- The Hindu

Bundi

Why in the news?
- The **Ministry of Tourism's Dekho Apna Desh Webinar series titled "Bundi**: **Architectural Heritage of a Forgotten Rajput Capital"** on **24th October 2020** focused on **Bundi, Rajasthan**.

About Bundi
- It is a district in the **Hadoti region of Rajasthan**.
- Bundi was the erstwhile **capital of Hada Rajput province known as Hadoti** located in **south-eastern Rajasthan**.
- **Bundi** is also known as **City of stepwells, blue city** and as **Chotti Kashi.**
- Bundi was known as **Chotti Kashi owing** to **presence of over hundred temples** within and around the **hada capital**.

Temples Style
- **Temples constructed** in early phase of **Bundi's growth** where is **classical Nagara style**, while in later phases **new temple typologies** emerged from **amalgamation of architectural** form of **traditional haveli** with the **classical Nagara style**.
- **Jain temples** formed **third type of temple** type constructed in **an introvert form.**
- A **fourth temple type** emerged in the **form of raised or elevated temple**.

- Absence of **monumentality** in their **scale is a distinctive feature** of temples in Bundi.

Topic- GS Paper I–Art and Culture
Source-PIB

Parampara Series
Why in the news?

- **Vice President of India** has recently launched the **festival of 'Parampara Series 2020- National Festival of Music & Dance.'**

About Parampara Series 2020

- It was organized by **Natya Tarangini in partnership with the United Nations.**
- **Natya Tarangini** is organizing the **'Parampara Series'** continuously since **past 23 years.**
- This **festival was organized** to coincide with the **World Day for Audio-visual Heritage.**

Related Information
About Natya Tarangini

- **Natya Tarangini Performing Arts Centre** was founded initially as a **Kuchipudi Dance Institute** by India's legendary dancing couple Dr. (s) Raja Radha and Kaushalya Reddy in the year **1976 in New Delhi.**

Topic- GS Paper I–Art and Culture
Source-Business Standard

Polity and Governance

Different Initiative for Farmers
Why in the news?
- **Union Minister for Chemicals & Fertilizers** has recently launched **POS 3.1 software**, **SMS Gateway,** and **Home Delivery facility of Fertilizers (RBK)** for farmers in **Andhra Pradesh.**

About these initiative
- **Under POS 3.1** version, keeping in view of **prevailing pandemic condition,** contactless OTP based **authentication option has been introduced.**
- Farmer will be able to purchase fertilizer **without touching fingerprint sensor.**
- **SMS Gateway** will periodically **send SMS to farmer** about **availability of fertilizer** at retail outlet from where he last **purchased the fertilizer.**
- Under an initiative of **Home delivery of Fertilizers** in Andhra Pradesh through **Rythu Bharosa Kendralu (RBK)** state Government has launched **10,641 Rythu Bharosa Kendralu (RBKs)** in **all gram panchayats** to provide farmers with **quality inputs and allied services**.
- Under this system, **farmers after biometric authentication** can order fertilizers from **RBK (Rythu Bharosa Kendra)** in their **village and fertilizer** will be delivered at their **doorstep.**
- **Andhra Pradesh** is the only state, which **has launched such unique initiative.**

Topic- GS Paper II–Governance
Source-PIB

Crimes against Scheduled Tribes saw 26% rise in 2019: NCRB report
Why in the news?
- The **National Crime Records Bureau (NCRB)** has released the annual **Crime in India 2019 report.**

Key highlights
- **Crimes against members of the Scheduled Castes (SCs)** and the **Scheduled Tribes (STs)** saw an **increase of over 7% and 26% in 2019** compared with the **2018 figures.**

- **Uttar Pradesh** recorded the **highest number of crimes** against the SCs in 2019, followed by **Rajasthan and Bihar.**

Strengthening the law

- The SC, in *Dr. Subhash Kashinath Mahajan vs State of Maharashtra*, held on March 20, 2018: No absolute bar against grant of anticipatory bail under the anti-atrocities law if no prima facie case is made out or if judicial scrutiny reveals the complaint to be prima facie *mala fide*

- Parliament introduces an amendment in 2018. Inserts Section 18A in the original Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act of 1989. Section 18A re-affirms the original legislative intention that Section 438 CrPC (pre-arrest bail) is not applicable to accused booked under the atrocities law

- Prathvi Raj Chouhan and other petitioners challenge the amendments as arbitrary

- February 10, 2020 judgment in Prathvi Raj Chouhan case: Justices Arun Mishra and Vineet Saran uphold Section 18A. However, the judges add that the High Courts will have an "inherent power" to grant anticipatory bail in cases in which *prima facie* an offence under the 1989 law is not made out

- Justice S. Ravindra Bhat adds a caveat about the use of this "inherent power" by courts. He says it should be used "only sparingly and in very exceptional cases". Otherwise, miscarriage of justice may result. The intention of Parliament to protect SCs and STs will be defeated

- "It is important to keep oneself reminded that while sometimes (perhaps mostly in urban areas) false accusations are made, those are not necessarily reflective of the prevailing and wide spread social prejudices against members of these oppressed classes": Justice Bhat

- In the **number of cases of rape of women belonging to the SCs**, Rajasthan topped the list followed by **Uttar Pradesh and Madhya Pradesh**.
- **Madhya Pradesh** recorded the **highest number of cases against the STs**, followed by **Rajasthan and Odisha.**

Crimes against SCs and STs include the following categories-
i.Atrocities committed by **non-SC/ST members** under the **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities Act), 1989**
ii.the Indian Penal Code
iii.the Protection of Civil Rights Act, 1955.
Crime against women
* The **rate of crime against women** has risen by **7.3% since 2018**.
* India recorded an **average of 87 rape cases every day in 2019.**
* The **highest number of incidents of rape of tribal women** was registered in **Madhya Pradesh.**
* **Assam** reported the **highest rate of crimes against women.**
* **Uttar Pradesh** also had the **highest number of crimes against girl children** under the **POCSO Act**, followed by **Maharashtra and Madhya Pradesh.**
* According to the report, due to **"non-receipt of data"** from **West Bengal for 2019,** the 2018 data had been used to **arrive at national and city-wise figures.**
Other Related News:

- The **Supreme Court** recently **upheld the constitutional validity** of the **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act, 2018.**
- The **amendment act was challenged** on the **grounds of violation of the fundamental right to equality (Article 14)** and **personal liberty (Article 21).**
- The amendment act adds **article 18A** which states that the **preliminary enquiry shall not be required** for registration of a **First Information Report against any person.**
- **In 1989, the Government of India passed the Prevention of Atrocities Act (POA)**, which **delineates specific crimes against**

Scheduled Castes and Scheduled Tribes as atrocities and describes strategies and prescribes punishments to counter these acts.

National Crime Record Bureau

- **NCRB** was **set-up in 1986** which function under the **Ministry of Home Affairs** who function as a **repository of information on crime and criminals** so as to assist the **investigators in linking crime** to the **perpetrators.**
- It is **headquartered in New Delhi**
- It was set up based on the **recommendations of the National Police Commission (1977-1981)** and the **MHA's Task Force (1985).**
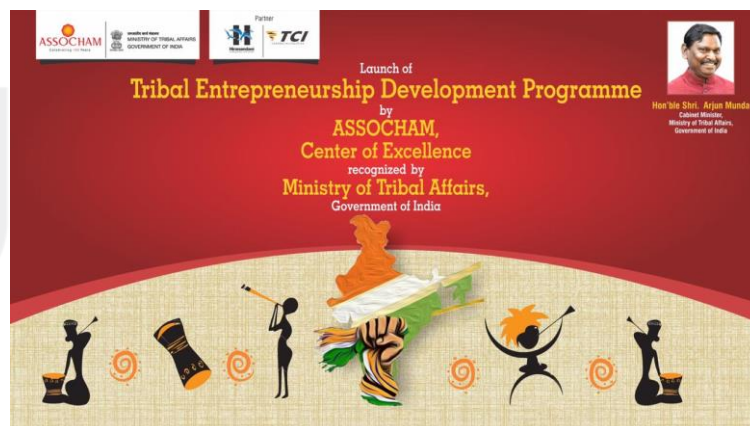- It is part of the **Ministry of Home Affairs (MHA).**

Topic- GS Paper II–Governance
Source-The Hindu

Tribes India E-Marketplace
Why in the news?

- **Minister of Tribal Affairs** will virtually launch **India's largest handicraft** and organic products marketplace- **Tribes India E-Marketplace** on the occasion of **Gandhi Jayanti.**

About Tribes India e-Marketplace

- It is an **ambitious initiative** through which **TRIFED aims to onboard 5 lakh tribal producers** for sourcing of **various handicraft, handloom, natural food products** across the **country and brings to you the best of tribal produce.**
- The **suppliers comprise of individual tribal artisans**, tribal SHGs, Organisations/ Agencies/ NGOs working with tribals.
- This path breaking initiative of **TRIFED under Ministry of Tribal Affairs** will showcase the produce and **handicrafts of tribal enterprises from across the country.**
- It will help them **market their products directly**.

Other steps taken by Government
TRIBES INDIA joins Amazon Seller Flex program

- It is a **long-standing partnership with Amazon**, which has **enabled sellers and artisans** to sell **Tribes India products** across **India and the world.**

- It will **help to accelerate the growth of tribal owned** and **run handicraft businesses, TRIFED (Tribes India)** will now be **associated with Amazon's Seller Flex Program.**
- This **program is intended to share Amazon's** best practices in **warehousing, inventory management**, and **shipping with sellers.**
- The **support and expertise from Amazon** will **help empower thousands of artisans** and **weavers who are part of Tribes India.**

About TRIFED

- The **Tribal Cooperative Marketing Development Federation of India (TRIFED)** came into **existence in 1987**.
- It is a **national-level apex organization** functioning under the administrative control of **Ministry of Tribal Affairs**.
- **TRIFED** has its **Head Office located in New Delhi**.

Objectives

- The **ultimate objective of TRIFED** is **socio-economic development of tribal people** in the country by way of **marketing development of the tribal products such as metal craft, tribal textiles, pottery, tribal paintings** and **pottery** on which the tribals depends heavily for major portion of their income.
- **TRIFED** acts as a **facilitator and service provider for tribes** to sell their product.
- The **approach by TRIFED** aims to **empower tribal people with knowledge**, tools and pool of information so that they can undertake their operations in a **more systematic and scientific manner**.
- It also involves **capacity building of the tribal people** through sensitization, formation of **Self-Help Groups (SHGs)** and imparting training to them for **undertaking a particular activity**.

Functions

- It mainly **undertakes two functions** viz. **Minor Forest Produce (MFP) development** and **Retail Marketing and Development.**

Minor Forest Produce (MFP)

- The **non-wood forest products,** generally termed **Minor Forest Produce.**
- This includes **all non-timber forest produce** of plant origin and includes bamboo, canes, fodder, leaves, gums, waxes, dyes, resins and many forms of food including nuts, wild fruits, honey, lac, tusser etc.
- They form a major portion of their food, fruits, medicines, and other consumption items and provide cash income through sales.

Topic- GS Paper II−Governance
Source-DD News

Pan India Time-Use Survey
Why in the news?

- **India's first Pan India time use survey** was released by the **Ministry of Statistics and Programme Implementation.**
- The **"NSS Report- Time Use in India 2019"** whose findings were revealed recently, is the **first such pan India survey conducted.**

- It is a sample survey conducted between **January and December 2019.**

What is a time-use survey?
- A **time use survey** measures the **amount of time people spend** doing **various activities**, such as paid work, childcare, volunteering, and socialising.
- The **primary objective of a time-use survey (TUS)** is to **measure participation of men and women** in paid and unpaid activities.
- It is an **important source of information** on the time **spent in unpaid caregiving activities**, volunteer work, unpaid domestic service producing activities of the **household members**.
- It also **provides information on time spent** on learning, socialising, leisure activities, self-care activities.
- The findings of these surveys are deemed to be **helpful in drafting policies** on **poverty, gender equity** and **human development**.

Key finding of the survey
- The **participation rate of men in paid employment** — which includes **jobs, farming, fishing, mining** amongst other **economic activities** — is high at **57.3 %,** compared to women whose participation rate is **only 18.4 %.**
- **Indian men** also spend **more time at paid work**, spending on **average 7 hours 39 minutes** compared to the **5 hours 33 minutes spent by women**.
- Around **81.2 % women participate in unpaid domestic services** spending an **average 4 hours 59 minutes** each day.
- The **participation rate of men in domestic services** is low at **26.1 % spending** an average **1 hour 37 minutes each day**.
- Contrary to popular **perception, men tend to participate more** in **socialising and communication**, community participation, and religious practice than women.
- Around **91.4 % of men participated in social activities**, spending **2 hours and 27 minutes** each day.
- The **participation rate for women** is just a little less at **91.3 % and** spends **2 hours and 19 minutes** each day.
- **Indians** do not like to **participate in unpaid volunteer work.**
- **Only 2.7 % of Indian men** participate as unpaid volunteers or trainees or participate in **other unpaid work.**
- The participation of women in **volunteer work is lesser at 2 %.**

Note:
- **India** is not the **first country having this survey**; the **United States** has been doing one **annually since 2003 whereas Australia** conducted its first **full-scale national survey in 1992.**
- **Canada, Germany, Austria,** and **Israel** have also conducted these surveys.

Topic- GS Paper II–Governance
Source-PIB

Child should learn mother tongue: Supreme Court
Why in the news?
- The **Andhra Pradesh government** has approached the **Supreme Court** challenging its **State High Court decision** to strike down a **government order of November 2019** which made **English medium education** compulsory from **classes I to VI in primary**, upper primary and high schools under all **managements from 2020-21.**

Background
- **Andhra Pradesh government** has introduced **English** as the **medium in schools from Classes I-VI,** while students are expected to **pick one of the two local languages, Telugu or Urdu,** as **compulsory subjects.**
- Action shall be taken for **reviving the English Language Teaching Centers** and **District English Centers (DECs)** and re-locate them in **District Institutes for Education and Training (DIETs).**
- According to the **state government**, **82% of upper caste students** study in **English medium schools**. While this figure is **only 2% for ST students** and **49% for SCs students.**
- By introducing **English as a medium of education,** the government aims to fulfil a **'welfare agenda'** to bring all students at par and make children **'industry ready'.**
- State government has **signed memorandum of understanding (MoU)s with language universities** and **institutes to train teachers** on a wide scale and has also recruited **new teachers for this purpose.**
- The government later wants to **extend this programme** from **classes VII-X**.
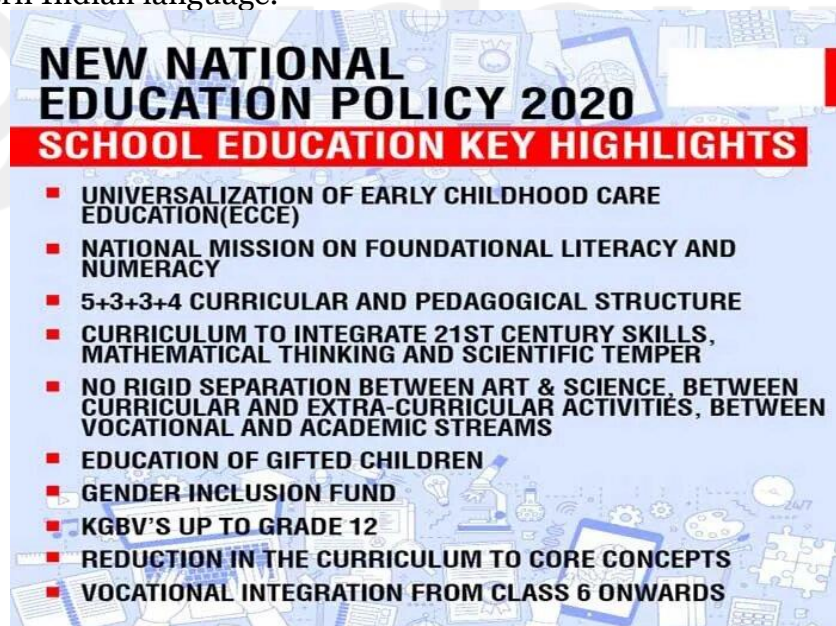- The **government wishes to transform the education sector** in the state and help it emerge as **'VIDHYANDHRA PRADESH'.**

Related Information
Autonomy in Language Policy
- In the **new National Educational Policy 2020**, it was **decided to push** for the **three-language formula**, to promote **multilingualism and national unity**.
- It has restarted the debate over suitability of **three language formulas all over India**.
- The three languages referred to **are Hindi, English and the regional language of the respective States.**
- Though the **teaching of Hindi across the country** was part of a **long-standing system,** it was **crystallized into a policy** in an **official document only** in the **National Policy on Education, 1968.**
- This document said **regional languages** were already in **use as the media of education in the primary.**

Kothari Commision 1968
- **First language**: It will be the **mother tongue or regional language.**
- **Second language**: In Hindi speaking states, it will be other modern **Indian languages or English.**
  - In non-Hindi speaking states, it will be Hindi or English.
- **Third Language**: In Hindi speaking states, it will be English or a modern Indian language. In the non-Hindi speaking state, it will be English or a modern Indian language.

NEW NATIONAL EDUCATION POLICY 2020
SCHOOL EDUCATION KEY HIGHLIGHTS
- UNIVERSALIZATION OF EARLY CHILDHOOD CARE EDUCATION(ECCE)
- NATIONAL MISSION ON FOUNDATIONAL LITERACY AND NUMERACY
- 5+3+3+4 CURRICULAR AND PEDAGOGICAL STRUCTURE
- CURRICULUM TO INTEGRATE 21ST CENTURY SKILLS, MATHEMATICAL THINKING AND SCIENTIFIC TEMPER
- NO RIGID SEPARATION BETWEEN ART & SCIENCE, BETWEEN CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES, BETWEEN VOCATIONAL AND ACADEMIC STREAMS
- EDUCATION OF GIFTED CHILDREN
- GENDER INCLUSION FUND
- KGBV'S UP TO GRADE 12
- REDUCTION IN THE CURRICULUM TO CORE CONCEPTS
- VOCATIONAL INTEGRATION FROM CLASS 6 ONWARDS

Note:
Sustainable Development Goal related to Education
- Goal 4 of SDG: **Education for all** – ensures equitable, inclusive, and quality education along with the promotion of lifelong learning **opportunities for all by 2030.**
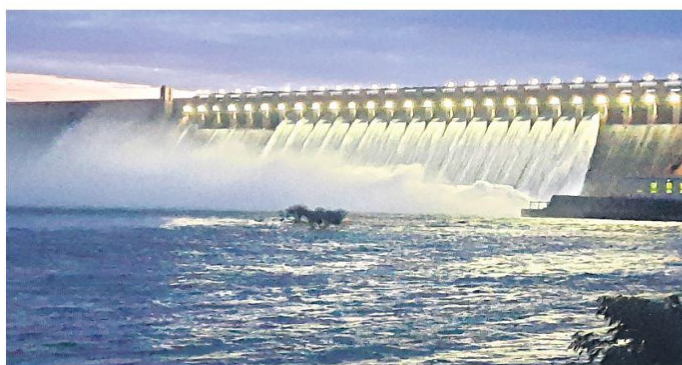
Topic- GS Paper II–Governance
Source-the Hindu

Centre to fix jurisdiction of river boards

Why in the news?

- The **Centre** will determine the **jurisdictions of the Krishna and Godavari river management** boards (**KRMB and GRMB**).
- An **apex council meeting** involving the **Centre, Andhra Pradesh and Telangana** was held **primarily to resolve the conflict** between the two **States over executing irrigation projects** and sharing water from the **Krishna** and **Godavari rivers.**

■ SEARCHING FOR
SOLUTIONS

● Second Apex Council meeting held after a gap of four years in New Delhi

● Telangana CM K Chandrashekhar Rao, AP CM Y S Jaganmohan Reddy attend via videoconferencing

● Both the Chief Ministers agree to submit DPRs of all new projects taken up

● With regard to sharing of Krishna and Godavari river waters between the two States, Rao agrees to withdraw case filed by TS in Supreme Court immediately

● This will enabling the Ministry to refer the issue to the Tribunal as per Section 3 of the Interstate River Water Disputes Act 1956

On sharing of Godavari waters, both CMs told to send requests to the Ministry so that the Centre could refer them to the Tribunal as per ISRWD Act

The Centre will go ahead and notify the jurisdiction of KRMB and GRMB. Telangana Chief Minister objected to it, but we said that as per the Reorganisation Act, there is no need of a consensus and the Centre can issue the notification. He finally agreed to it

— GAJENDRA SINGH SHEKHAWAT, Union Jal Shakti Minister

Related Information

Water dispute between Telangana and Andhra Pradesh

- **Telangana and Andhra Pradesh** share stretches of the **Krishna** and the **Godavari** and **own their tributaries**.
- **Both states have proposed** several **new projects** without **getting clearance** from the **river boards, the Central Water Commission,** and the **Apex Council**, as mandated by the **Andhra Pradesh Reorganisation.**
- The **Andhra Pradesh Reorganisation Act, 2014** mandates for constitution of an **Apex Council by Central Government** for the supervision of the functioning of the **Godavari River Management Board** and **Krishna River Management Board.**
- The **Apex Council comprises** the **Union Water Resources Minister** and the **Chief Ministers of Telangana** and **Andhra Pradesh**.
- The Andhra Pradesh government's proposal to increase the **utilisation of the Krishna water** from a section of the **river above the Srisailam Reservoir** led to the **Telangana government** filing a **complaint against Andhra Pradesh.**
- **The Srisailam reservoir** is constructed across the **Krishna River in Andhra Pradesh.**
- It is located in the **Nallamala hills.**

Inter-State Water Disputes

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

- Under this, **Parliament may by law** provide for the **adjudication of any dispute or complaint** with respect to the **use, distribution and control of waters** of any inter-state river and river valley.
- **Parliament** may also provide that **neither the Supreme Court** nor any other court is to **exercise jurisdiction in respect** of any **such dispute or complaint**.

The Parliament has enacted the two laws,
a. the River Boards Act (1956)
b. Inter-State Water Disputes Act (1956).

The River Boards Act, 1956
- It provides for the **establishment of river boards** for the **regulation and development of Inter-state River and river valleys**.
- A **river board** is established by the **Central government** on the request of the **state governments concerned to advise them.**

About Inter-State Water Disputes Act (1956)
- The Inter-State Water Disputes Act **empowers the Central government** to set up an **ad hoc tribunal for the adjudication** of a **dispute between two or more states** in relation to the **waters of an inter-state river or river valley.**
- **The decision of the tribunal is final** and binding on the parties to the dispute.
- Neither the **Supreme Court nor any other court** is to have **jurisdiction in respect of any water dispute** which may be referred to such a **tribunal under this Act.**

Topic- GS Paper II—Governance
Source-the Hindu

Natural Gas Marketing Reforms

Why in the news?
- Recently, the **Cabinet Committee on Economic Affairs** chaired by the **Prime Minister** has approved the **'Natural Gas Marketing Reforms'.**

Objectives of the Natural Gas Marketing Reforms
- The **objective of the policy** is to prescribe **standard procedure to discover market price of gas** to be **sold in the market by gas producers**.

- It is **aimed at developing a transparent** and **competitive process** in the **natural gas market.**
- The policy has also permitted **Affiliate companies** to participate in the bidding process in view of the **open, transparent and electronic bidding.**
- It **aims to provide standard procedure** for **sale of natural gas** in a **transparent and competitive manner** to discover **market price by issuing guidelines for sale** by **contractor through e-bidding.**
- It will also **grant marketing freedom** to the **Field Development Plans (FDPs)** of those **Blocks in which Production Sharing Contracts** already provide pricing freedom.

Significance of Natural Gas Marketing Reforms

- These reforms will prove **very significant for Atmanirbhar Bharat** by **encouraging investments** in the **domestic production of natural gas** and **reducing import dependence.**
- It will **bring uniformity** in the **bidding process across the various contractual regimes** and **policies to avoid ambiguity** and contribute **towards ease of doing business.**
- The **whole eco-system of policies** relating to **production, infrastructure and marketing of natural gas** has been made **more transparent with a focus** on **ease of doing business.**
- These **reforms will prove** to be another **milestone in moving towards** a **gas-based economy** by encouraging investments.
- The **increased gas production consumption** will help in **improvement of environment.**
- These reforms will **also help in creating employment opportunities** in the **gas consuming sectors including MSMEs.**

Related Information

- In **February 2019**, **Government implemented major reforms** in **upstream sector** and brought **paradigm shift by focusing on production maximization**.
- **Acreages under Open Acreage Licensing Policy (OALP)** rounds are being allocated based on **work programme** only in **Category II and Category III basins.**

About Open Acreage Licensing Policy

- The OLAP was **declared by the union government in June 2017.**
- Under it, the **potential investors** choose the exact areas they are **interested in**, convey their **interest to the government,** which then places just those **blocks up for bidding.**
- **Companies are allowed to choose the areas** in which they **want to explore oil and gas, under OALP.**
- After choosing the area, **companies put in an expression of interest** which is then put on **auction by the government**.
- The **process offers attractive and liberal terms** like reduced royalty rates, no oil cess, marketing and pricing freedom, round the year bidding, freedom to investors for carving out blocks of their interest, a single license to cover both conventional and unconventional hydrocarbon resources,

exploration permission during the entire contract period, and an easy, transparent and swift bidding and awarding process.

Natural gas production and delivery
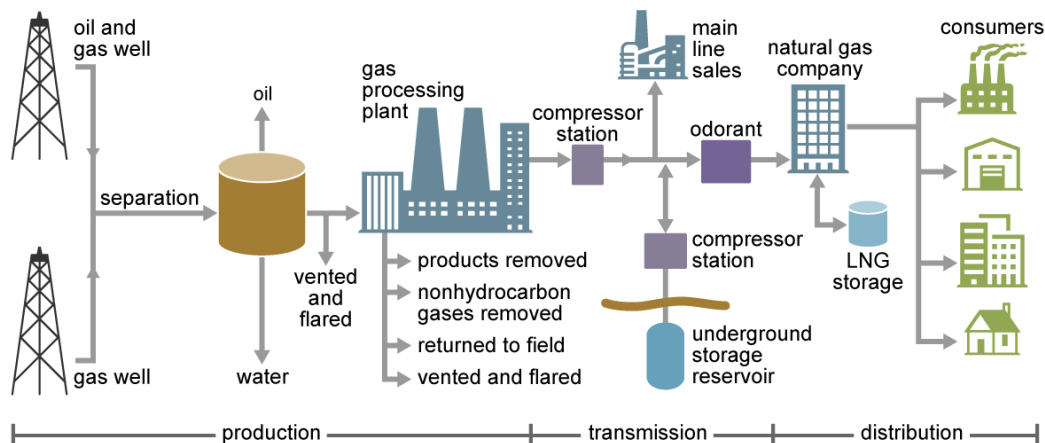
Image courtesy: US Energy Information Administration

Topic- GS Paper II & III– Governance + Environment
Source- The Hindu

Gyan Circle Ventures
Why in the news?
- **Union Minister for Education** inaugurated the **Gyan Circle Ventures, a MeitY** funded **Technology Business Incubator (TBI)** of **Indian Institute of Information Technology, Sri City (Chittoor), Andhra Pradesh.**

About Gyan Circle Ventures
- It would function as a **Technology Incubation and Development of Entrepreneurs (TIDE 2.0) incubation center** as approved by the **Ministry of Information Technology (MeitY).**
- The **incubator** would leverage the **institutions' entrepreneurial spirit** via utilizing its **intellectual capital and engage** in using **emerging technologies such as Artificial Intelligence (AI),** Block-chain, Cyber Physical Systems (CPS), Cyber Security, Internet of Things (IoT), Robotics, etc.
- It will also serve as a **hub for innovation and startups** by providing support, in various phases, via **investments, infrastructure and mentoring.**

Topic- GS Paper II– Governance
Source- The Hindu

Tech for Tribals Initiative

Why in the news?

- Recently **TRIFED under Ministry of Tribal Affairs** in **collaboration with Chhattisgarh MFP Federation** and **IIT, Kanpur** will be **launching Tech for Tribals initiative.**

About the Tech for Tribals Initiative

- The program titled **"Tech for Tribals"** aims at the **holistic development of tribals** with a **focus on entrepreneurship development**, **soft skills, IT,** and **business development** through **SHGs operating** through **Van Dhan Kendras (VDVKs).**
- **Tech for Tribals** is a **unique program** to make tribals of India **"Aatmanirbhar", focusing to bridge the gap** between **tribal entrepreneurs and urban markets**.
- Under this initiative, **TRIFED** has tied up **reputed national institutions** such as IIT, Kanpur; Art of Living, Bangalore; TISS, Mumbai; KISS, **Bhubaneswar; Vivekananda Kendra**, **Tamil Nadu** and **SRIJAN, Rajasthan.**
- This program will mainly entail **three aspects of development** for **sustainable entrepreneurship** which can be considered as the three pillars
    a. Engagement
    b. Capacity Building
    c. Market linkages.
- This will lead to the **path of commercialization** of the **tribal entrepreneurs.**

Related Information

About the Tribal Cooperative Marketing Development Federation of India

- It is a **national-level apex organization** functioning under the **administrative control of Ministry of Tribal Affairs.**
- It came into **existence in 1987.**
- **TRIFED** has its **Head Office** located in **New Delhi** and has a **network of 13 Regional Offices** located at **various places in the country.**

Objectives

- The **ultimate objective of TRIFED** is **socio-economic development of tribal people** in the country by way of **marketing development of the tribal products** such as **metal craft, tribal textiles, pottery, tribal paintings and pottery** on which the **tribals depends heavily for major portion of their income.**
- TRIFED acts as a **facilitator and service provider** for tribes to sell their product.
- The approach by **TRIFED aims to empower tribal people** with knowledge, tools, and pool of information so that they can undertake their operations in a more systematic and scientific manner.
- It also **involves capacity building of the tribal people** through sensitization, **formation of Self-Help Groups (SHGs)** and imparting training to them for undertaking a particular activity.

Functions

- It **mainly undertakes two functions** viz. Minor Forest Produce (MFP) development and Retail Marketing and Development.

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

Allocation of party symbols by the Election Commission of India

Why in the news?

- In the **upcoming Bihar assembly**, apart from lotus, arrow, the hand and hurricane lantern, voters can also expect to see a myriad of other symbols like chapatti roller, dolli, bangles, capsicum on the ballots.

How many types of symbols are there?

- As per the **Election Symbols (Reservation and Allotment) (Amendment) Order, 2017**, party symbols are either **"reserved" or "free".**
- Currently the eight national parties and 64 state parties across the country have "**reserved" symbol**s.
- The Election Commission also has a pool of nearly **200 "free" symbols that are allotted to the thousands of unrecognized regional parties that pop up before elections**.
- **For example**, if a party recognized in a particular state contests in elections in another state, it can "reserve" the symbol being used by it, provided the symbol is not being used or bears resemblance to that of any other party.
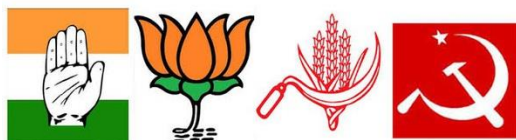
National Parties of India

How are symbols allotted to political parties?
- **The order, first promulgated in 1968**, mandates the Election Commission to provide for "specification, reservation, choice and allotment of symbols at parliamentary and assembly elections, for the recognition of political parties".
- **As per the guidelines**, to get a symbol allotted, a party/candidate has to provide a list of three symbols from the EC's free symbols list at the time of filing nomination papers.
- Among them, **one symbol is allotted** to the party/candidate on a **first-come-first-serve basis.**
- **In case of split:** When a **recognised political party splits**, the Election Commission takes the decision on assigning the symbol.

What is the significance of symbols in elections?
- In a **vast and diverse country like India**, where **several nondescript** and **small political parties** try out their luck in **state elections, symbols are crucial campaigning tools** to connect with the voters.
- Symbols have **become a crucial part of the electoral process** ever since India held its **first national polls in 1951-52.**
- Since **nearly 85 per cent of the electorate** was **illiterate at that point, visual symbols** were **allotted to parties** and **candidates to help** them **identify the party of their choice**.

Note:
- According to **Election Commission, there are 2,538 unrecognised** parties in India.

Topic- GS Paper II—Governance
Source- The Hindu

Public Safety Act (PSA) 1978
Why in the news?
- The **Jammu & Kashmir administration** revoked the detention under the **Public Safety Act (PSA)** of former **Chief Minister and Peoples Democratic Party (PDP)** president **Mehbooba Mufti**, who has been under arrest for more than **14 months**.

CAN BE HELD FOR UP TO 2 YRS WITHOUT TRIAL

➤ J&K PSA Act of 1978 allows govt to detain a person for up to 2 years without trial	4 weeks of detention order ➤ Board must determine if there are sufficient grounds for detention within 8 weeks
➤ Detainees not required to be produced in a court	➤ If the board agrees, a person can be detained for a maximum of 12 months in a case involving public order, and for 2 years in a case involving the security of the state
➤ Govt has to set up an advisory board within	

About Public Safety Act
- The **Jammu & Kashmir Public Safety Act (PSA), 1978** is a **preventive detention law**, under which a person is taken into **custody to prevent him** or her from **acting in any manner that** is prejudicial to "the security of the state or the maintenance of the public order".
- It is very similar to the **National Security Act** that is used by **other state governments for preventive detention.**
- It comes into force by **an administrative order** passed either by **Divisional Commissioner** or the **District Magistrate** and not by a **detention order by police** based on **specific allegations or for a specific violation of laws**.

Topic- GS Paper II–Governance
Source- The Hindu

Nirbadh Initiatives

Why in the news?
- **Employees' Provident Fund Organisation (EPFO)** has recently **launched WhatsApp** based **helpline-cum-grievance redressal mechanism**, under its **series of Nirbadh initiatives** aimed at **ensuring seamless and un-interrupted service delivery** to subscribers during COVID-19 pandemic.

About Nirbadh Initiatives
- This **new grievance redressal mechanism** using **Whatsapp has gained immense popularity** amongst **EPFO's stakeholders**.
- This has **led to decline in registration of grievances/queries on social media** like **Facebook /Twitter by 30%** and on **EPFiGMS (EPFO's online grievance resolution portal) by 16%** since the **launch of WhatsApp helpline numbers.**
- This facility has been **given in addition to the various** other means of grievance redressal forums of EPFO which include **web based EPFiGMS portal**, **CPGRAMS, social media pages** (Facebook & Twitter) and a **dedicated 24x7 call centre.**

Related Information
About Employees' Provident Fund Organisation
- It is a **government organization** that **manages provident fund** and **pension accounts of member employees** and **implements the Employees' Provident Fund and Miscellaneous Provisions Act,**

1952 which is **applicable to whole of India** with exemption **given only to Jammu & Kashmir.**

- The **Employees' Provident Fund and Miscellaneous Provisions Act, 1952** provides for the **institution of provident funds for employees** in **factories and other establishments.**
- It is administered by the **Ministry of Labour & Employment,** Government of India.
- It is one of the **World's largest Social Security Organisations** in terms of clientele and the **volume of financial transactions undertaken.**

Topic- GS Paper II— Social Issue
Source- Hindustan Times

Cabinet approves World Bank aided project STARS

Why in the news?

- The **Union Cabinet** has **recently approved the Strengthening Teaching-Learning** and **Results for States (STARS) project** to set up a **national assessment center** and **help six states on a pilot basis** to **improve learning and assessment in schools.**

About Strengthening Teaching-Learning and Results for States Program (STARS)
Implementation

- **STARS project** would be **implemented as a new Centrally Sponsored Scheme** under **Department of School Education and Literacy, Ministry of Education (MOE).**
- **STARS build on the partnership** between **India and the World Bank since 1994 for strengthening** the **school education system** and to **support the goal of providing education to all.**

Funding

- The **Project is aided by World Bank.**

Coverage

- The **project covers 6 States** namely **Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala, and Odisha.**
- More than **52% of children in government-run schools** in the **six project states belong to vulnerable sections, such as Scheduled Castes, Scheduled Tribes, and minority communities.**

The STARS Project has two major components:

1)   At the national level, the project envisages the following interventions which will benefit all states and UTs:

- To **strengthen MOE's national data systems** to capture robust and authentic data on retention, transition, and completion rates of students.
- To **support MOE** in **improving states PGI scores** by incentivizing states governance reform agenda through SIG (State Incentive Grants).
- To **support the strengthening of learning assessment systems.**
- To support **MOE's efforts** to establish a **National Assessment Center (PARAKH).**

- The **STARS project** includes a **Contingency Emergency Response Component (CERC)** under the **National Component** which would enable it to be **more responsive to any natural, man-made and health disasters**.
- It will help the **government respond to situations** leading to **loss of learning** such as **school closures/infrastructure damage**, **inadequate facilities** and **use technology** for **facilitating remote learning** etc.
- The **CERC component** would **facilitate the rapid re-categorization** of **financing and the utilization** of **streamlined financing request procedures.**

2)   At the State level, the project envisages:

- Strengthening Early Childhood Education and Foundational Learning
- Improving Learning Assessment Systems
- Strengthening classroom instruction and remediation through teacher development and school leadership
- Strengthening Vocational education in schools through mainstreaming, career guidance and counselling, internships, and coverage of out of school children

- The STARS project also **aims to focus on initiatives of PM e-Vidya**, **Foundational Literacy and Numeracy Mission** and **National Curricular and Pedagogical Framework for Early Childhood Care** and **Education** as part of the **Atmanirbhar Bharat Abhiyan**.

Measurable outcomes of the project

a. Increase in students achieving minimum proficiency in grade 3 language in selected states,
b. Improvement in secondary school completion rate
c. Improvement in governance index scores
d. Strengthened learning assessment systems
e. Strengthened school management by training of Head Teachers and Principals for improved education service delivery.

Topic- GS Paper II– Governance
Source- PIB

Gujarat's Amended Disturbed Areas Act
Why in the news?

- Recently **President** has given his **assent to the Bill** amending the **Gujarat Prohibition of Transfer of Immovable Property and Provisions of**

Tenants from **Eviction from Premises in Disturbed Areas Act**, passed by the **Gujarat Assembly in 2019.**

About Gujarat's Amended Disturbed Areas Act

- Under the Act, the **transfer of any immovable property** in disturbed areas cannot be done without permission of the district collector concerned.
- The **Act bans sale of property** by members of **one religious' community** to those from another community without the prior approval of the district collector in areas declared as **"disturbed areas".**
- The **new Act** would **ensure peace, stop polarisation** and keep a check on attempts to cause **demographic imbalance.**
- The Act is in force in **various parts of the state**, including **Ahmedabad, Vadodara, Surat, Himmatnagar, Godhra, Kapadvanj and Bharuch.**

Key provisions in the Amended Act

- The **amended Act** has also enlarged the scope of the term **"transfer of property"** in the disturbed area, while **bringing the transfer of property** through gift, exchange, lease, or sale under its purview.
- The **amendment allows the state government** to review the decision of concerned collectors granting **approval of transfer of a property** in a disturbed area, even if there is no **appeal against such an approval**.
- **Under the amended Act, a committee** will be formed in **every district and commissionerate** areas of the state consisting of the concerned **police commissioner/superintendent of police**, district collector and regional municipal commissioner.
- This will guide the **state government** in **declaring an area** as a **disturbed area.**
- The same committee will also assist a **state-level monitoring and advisory committee** to be formed **under the provisions of the Act**.
- A provision has been made for the **creation of a special investigation team (SIT)** or committee to **probe these aspects.**
- In municipal corporation areas, the **SIT will comprise the concerned Collector, Municipal Commissioner**, and **Police Commissioner as members**.

- In areas other than municipal corporations, the **SIT will have the Collector, Superintendent of Police**, and **Regional Municipal Commissioner** as members.

Note:

- The **provisions of the Act** will not be applicable to the **government's rehabilitation schemes** in a **disturbed area**, where it **resettles displaced people.**

Topic- GS Paper II– Governance
Source- Indian Express

Gorkhaland issue

Why in the news?

- Earlier this month, the Ministry of Home Affairs (MHA) had invited the West Bengal government, the Gorkha Territorial Administration (GTA), and the Gorkha Janmukti Morcha (GJM) for a tripartite meeting to discuss issues related to Gorkhaland.

Proposed Map Of Gorkhaland

About the Gorkhaland

- **Gorkhaland region** consists of **Nepali-speaking people of Darjeeling, Kalimpong, Kurseong** and other **hilly districts of West Bengal.**
- The **crisis in Gorkhaland** has been brewing for **many decades and the stems from language**.
- The **first demand for Gorkhaland** was **submitted in 1907** to **Morley-Minto Reforms** panel.
- Since then from time to time the region has **witnessed various violent protests** for **creation of the separate state.**

History of Gorkhaland movement

- In **1780,** the **Gorkhas captured Sikkim** and **most part of North Eastern states** that includes **Darjeeling, Siliguri, Simla, Nainital, Garhwal hills, Kumaon and Sutlej**, that is, the **entire region from Teesta to Sutlej.**

- After **35 years of rule**, the **Gorkhas surrendered the territory to British** in the **Treaty of Segoulee in 1816,** after they **lost the Anglo-Nepal war.**
- However, though the **British handed over Darjeeling to Sikkim**, it was taken back for **political reasons in 1835.**
- **Before 1905,** when **Viceroy of India, Lord Curzon** directed the **partition of Bengal, Darjeeling** was a part of **Rajshahi division**, which now **falls in Bangladesh**.
- For a **short period from 1905-1912**, it was even a **part of the Bhagalpur division.**

Related information
About Gorkhaland Territorial Administration (GTA)

- It is a **semi-autonomous administrative body** for the **Darjeeling and Kalimpong hills** in **West Bengal, India.**
- It was created by **West Bengal Legislative Assembly** by passing a bill in 2011.

Topic- GS Paper II—Governance
Source- Indian Express

District Development Councils
Why in the news?

- The **Centre** has **recently amended the Jammu and Kashmir Panchayati Raj Act, 1989,** to **facilitate the setting up of District Development Councils (DDC)**, the members of which will be **directly elected by voters in the Union Territory.**

What are DDCs and how will they be represented?

- The **District Development Councils (DDCs)** are set to become a **new unit of governance in Jammu and Kashmir.**
- **Legislation** to this effect was **brought in by the Ministry of Home Affairs** on **October 16** through an **amendment to the Jammu and Kashmir Panchayati Raj Act, 1989.**
- This **structure** will include a **DDC and a District Planning Committee (DPC).**
- The **J&K administration** has also amended the **J&K Panchayati Raj Rules, 1996,** to provide for **establishment of elected District Development Councils in J&K.**

- This **system effectively replaces** the **District Planning and Development Boards** in all districts and will **prepare and approve district plans** and **capital expenditure.**

Features
- The **DDCs** will have **elected representatives from each district**.
- Their **number has been specified** at **14 elected members** per district **representing its rural areas**, alongside the **Members of Legislative Assembly chairpersons** of **all Block Development Councils** within the district.

Tenure
- The **term of the DDC** will be **five years**, and the **electoral process** will allow for **reservations for Scheduled Castes**, **Scheduled Tribes, and women**.
- The **Additional District Development Commissioner** (or the **Additional DC)** of the **district shall be the Chief Executive Officer** of the **District Development Council.**
- The **council, as stated in the Act,** will hold at **least four "general meetings"** in a year, **one in each quarter.**

Background
- The DDCs replace the District Planning and Development Boards (DDBs) **that were headed by a cabinet minister of the erstwhile state of Jammu and Kashmir.**
- For Jammu and Srinagar districts, as winter and summer capitals, **the DDBs were headed by the Chief Minister.**
- However, **for Leh and Kargil districts, the Autonomous Hill Development Councils performed the functions designated for the DDBs.**
- The **Councils will oversee the functions of the Halqa Panchayats** and the **Block Development Councils** in tandem with the **line departments of the Union Territory.**

Topic- GS Paper II- Governance
Source- PIB

Govt. refuses to give details of CIC applicants
Why in the news?
- The post of **Chief Information Commissioner (CIC)** has been vacant for almost two months and the **Department of Personnel and Training (DoPT)** had received **139 applications for CIC post.**
- Now, **DoPT** has denied a **Right to Information (RTI) request** seeking **further details about the candidates**, the search committee members, and the short-listing criteria, despite a **Supreme Court order** directing the government to make **such information public**.

Reason
- The **Department** hold that **information relating to particulars** of applicants is exempted under section **8(1) (j) for RTI Act, 2005,** which aims to **protect privacy** unless the **larger public interest is involved**.

Related Information

About Chief Information Commissioner (CIC)

- The **Central Information Commission** was established by the **Central Government in 2005.**
- It was constituted through an **Official Gazette Notification** under the **provisions of the Right to Information Act (2005).**
- Hence, it is **not a constitutional body**.

Composition

- The Commission consists of a **Chief Information Commissioner** and not more than **ten Information Commissioners**.
- The Commission, when constituted initially, had **five commissioners including the Chief Information Commissioner**.
- At **present (2019),** the **Commission has six Information Commissioners** apart from the **Chief Information Commissioner**
- The **Chief Information Commissioner (CIC) and Information Commissioners (CI)** shall be appointed by the **President** on the recommendation of a **committee consisting of:**
  - The **Prime Minister**, who shall be the **Chairperson of the committee.**
  - The **Leader of Opposition** in the **Lok Sabha**.
  - A **Union Cabinet Minister** to be **nominated by the Prime Minister**.

Tenure and Service Conditions

- The Chief Information Commissioner and an **Information Commissioner** shall hold office for such term as prescribed by the **Central Government** or until they **attain the age of 65 years,** whichever is earlier**.**
- They are not **eligible for reappointment.**
- The **President** can remove the **Chief Information Commissioner** or any **Information commissioner** from the office under the following circumstances:
  - if he is adjudged an insolvent; or
  - if he has been convicted of an offence which (in the opinion of the President) involves a moral turpitude; or
  - if he engages during his term of office in any paid employment outside the duties of his office; or
  - if he is (in the opinion of the President) unfit to continue in office due to infirmity of mind or body; or

- o if he has acquired such financial or other interest as is likely to affect prejudicially his official functions.
- In addition to these, the **President can also remove the Chief Information Commissioner** or any Information Commissioner on the ground of proved misbehavior or incapacity.
- However, in these cases, the **President** must refer the **matter to the Supreme Court for an enquiry.**
- If the **Supreme Court,** after the enquiry, **upholds the cause of removal** and advises so, then the **President can remove him**.
- The salary, allowances and other service conditions of the **Chief Information Commissioner and an Information Commissioner** shall be such as prescribed by the **Central Government**.
- It hears appeals from **information-seekers** who have **not been satisfied** by the public authority and **addresses major issues** concerning the RTI Act.
- **CIC submits** an **annual report to the Union government** on the **implementation of the provisions of RTI Act**.

Topic- GS Paper II—Polity
Source- The Hindu

Ayushman Sahakar

Why in the news?

- **Union Minister for Agriculture** launched **AYUSHMAN SAHAKAR**, a unique scheme to **assist cooperatives** to **play an important role in creation** of **healthcare infrastructure** in the country.

About Ayushman Sahakar Scheme

- The scheme is **formulated by the National Cooperative Development Corporation (NCDC)**, the **apex autonomous development finance institution** under the **Ministry of Agriculture and Farmers Welfare**.
- **NCDC** would **extend term loans to prospective cooperatives** to the tune of **Rs.10,000 Crore** in the coming years.

- **NCDC's scheme** aligns itself with the focus of the **National Health Policy, 2017.**
- It covers the **health systems in all their dimensions- investments in health**, organization of healthcare services, access to technologies, development of human resources, encouragement of medical pluralism, affordable health care to farmers etc.

- It has **comprehensive approach-hospitals**, healthcare, medical education, nursing education, paramedical education, health insurance and holistic health systems such as AYUSH.
- **Ayushman Sahakar scheme fund** would also assist cooperative hospitals take up **medical / Ayush education.**

Objectives of the scheme are:

a) To assist provision of affordable and holistic healthcare through hospitals / healthcare / education facilities by cooperative societies,

b) To assist promotion of AYUSH facilities by cooperative societies,

c) To assist cooperative societies meet the objectives of National Health Policy,

d) To assist cooperative societies participate in the National Digital Health Mission,

e) To assist cooperative societies provide comprehensive healthcare including education, services, insurance and activities related thereto.

Related Information

About National Cooperative Development Corporation

- It was **set up under an Act of Parliament in 1963** for promotion and development of cooperatives
- It functions under the **Ministry of Agriculture and Farmers Welfare.**
- Recent initiatives include **Sahakar Cooptube NCDC Channel** (Youth-focussed), **Sahakar Mitra** (Internship Programme), etc.

Topic- GS Paper II—Governance

Source- PIB

ECI constitutes committee to examine issues concerning expenditure limits

Why in the news?

- **Election Commission** has **constituted a committee** comprising **Sh. Harish Kumar, Ex. IRS** and **DG (Investigation), Sh. Umesh Sinha, Secretary General and DG (Expenditure)** to examine the issues concerning expenditure limit for a candidate in view of **increase in number of electors** and **rise in Cost Inflation Index** and other factors.

About the Committee

The committee will have following terms of reference:

- To assess the change in number of electors across the States/Union Territories and its bearing on expenditure.
- To assess the change in Cost Inflation Index and its bearing on the pattern of expenditure incurred by the candidates in recent elections.

- o To seek views/inputs of the political parties and other stakeholders.
- o To examine other factors which may have bearings on expenditure?
- o To examine any other related issue.
- The Committee will submit its **report within 120 days** of its constitution.

Reason for review
- In last **6 years the limit was not increased** despite **increase in electorate from 834 million to 910 million** in 2019 to 921 million now.
- Further, **Cost Inflation Index** during this period has **increased from 220 to 280 in 2019 to 301 now.**

Recent Development
- The **Ministry of Law & Justice** has also **notified an amendment in Rule 90 of Conduct of Elections Rules, 1961** enhancing the **existing expenditure limit by 10%.**
- This **increase of 10%** will be **applicable with immediate effect** in ongoing elections.
- **Expenditure limit** for a **candidate was last revised in 2014** vide **notification dated 28.02.2014**, while in **respect of Andhra Pradesh** and **Telangana** it was **revised vide notification dated 10.10.2018**.

Topic- GS Paper II– Governance
Source- PIB

Ghar Tak Fibre

Why in the news?
- Recently, the **Prime Minister of India** inaugurated **'Ghar Tak Fibre' scheme** in **Bihar.**

About Ghar Tak Fibre Scheme
- It aims to **connect all 45,945 villages of Bihar** with **high-speed optical fibre internet** by **31st March 2021**.
- Under the **Ghar Tak Fibre scheme**, **Bihar** must provide at least **five fibre-to-the-home (FTTH) connections per village**, while there should also be at **least one WiFi hotspot** per village.
- It **aims to connect** all the villages with **high-speed internet**.
- The **main objective of this scheme** is to make the **broadband services available in rural** and **remote areas of the nation**.

Implementing Agency
- The Scheme will be implemented by the **Ministry of Electronics and Information Technology**.

- The Scheme will lead the following
  - Digital services including e-Education
  - E-Agriculture
  - Tele-Medicine
  - Tele-law and other social security schemes in Bihar ensuring easy access to all state natives.
- It is also likely to **boost the local employment generation** with the **implementation of Bharat Net initiative** which will be done by **recruiting local workers.**

About BharatNet project

- BharatNet Project is the **world's largest rural broadband connectivity programme** using Optical fiber.
- It is **implemented by Bharat Broadband Network Limited (BBNL)** – a special purpose vehicle under the **Telecom Ministry** and is the **Government of India's ambitious rural internet connectivity programme**.
- The **BharatNet project**, which **initially began as the National Optical Fibre Network** in **October 2011** which has been **renamed as BharatNet Project in 2015.**

Aim

- To connect all the **2, 50,000 Gram panchayats** in the **country and provide 100 Mbps connectivity** to **all gram panchayats.**
- To facilitate the **delivery of e-governance**, e-health, e-education, e-banking, Internet, and other services to rural India.
- To achieve this, the **existing unused fibres (dark fibre)** of public sector **undertakings (PSUs)** (BSNL, Railtel and Power Grid) were utilised and **incremental fibre** was laid to connect to Gram Panchayats wherever necessary.

Implementation

- The project is a **Centre-State collaborative project**, with the states contributing **free Rights of Way** for establishing the **Optical Fibre Network**.

The three-phase implementation of the BharatNet project is as follows:

- **First Phase**: Provide one lakh gram panchayats with broadband connectivity by laying underground optic fibre cable (OFC) lines by December 2017.
- **Second Phase:** Provide connectivity to all the gram panchayats in the country using an optimal mix of underground fibre, **fibre overpower lines**, radio, and satellite media. It is to be completed by March 2019.
- **Third Phase:** From **2019 to 2023**, a **state-of-the-art**, future-proof network, including **fibre between districts and blocks**, with ring topology to provide redundancy would be created.

Topic- GS Paper II– Governance
Source- The Hindu

'Meri Saheli' Initiative
Why in the news?
- Recently, the staff of **Indian Railway Protection Force Service (earlier known as Railway Protection Force**) in **Vijayawada Division** has launched the **'Meri Saheli' initiative**.

About 'Meri Saheli' Initiative
- The main motto of the **'Meri Saheli' initiative** is to provide a safe and secure environment to **lady passengers travelling** in trains throughout their journey.
- The initiative will be carried out by an **all-women team headed by one Indian Railway Protection Force Service** Lady Sub-Inspector and few Constables.
- The initiative was launched by **Indian Railway Protection Force Service** to continuously **monitor the safety of lady passengers** from the **originating station to the destination.**

Related Information
Operation Shakti
- It has been also **launched by Indian Railway Protection Force Service** in **May 2018 to ensure a safe train journey** for women passengers.
- It also helps in **major safety operation** backed by **extensive analysis of data on crime-prone trains** and railway stations **across the South Western Railway Zone.**

Topic- GS Paper II—Governance
Source-AIR
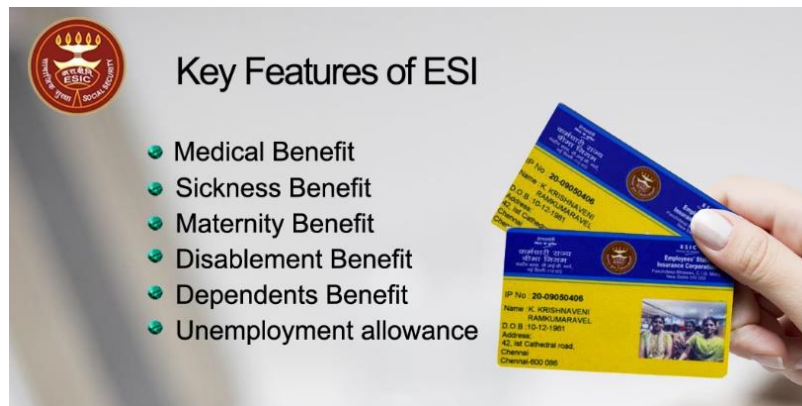
Employees' State Insurance (ESI) Scheme
Why in the news?
- **Government of India** has now **extended the Employees' State Insurance (ESI) Scheme** for the **first time to Arunachal Pradesh**, with **effect from 1st November 2020.**
- The **Central Government** is notifying the district of **Papum Pare, under ESI Scheme**.

Related Information
About Employees' State Insurance (ESI) Scheme in India
- It is a **self-financed comprehensive social security scheme** which is function under the **Ministry of Labour & Employment**.

- It protects the **employees against financial distress** arising out of events of **sickness, disablement, or death** due to **employment injuries.**
- **Employees' State Insurance Corporation (ESIC)** is responsible for the **administration of ESI Scheme**.
- **ESIC is a statutory corporate body** set up under the **ESI Act, 1948.**

Coverage of the Scheme

- The **ESI Scheme applies to factories** and other **establishment's** viz. **Road Transport, Hotels, Restaurants, Cinemas, Newspaper, Shops,** and **Educational/Medical Institutions** wherein 10 or more persons are employed.
- However, in some **States** the **threshold limit for coverage** of establishments is still 20.
- **Employees** of the aforesaid categories of factories and establishments, drawing wages upto **Rs. 15,000 per month,** are entitled to **social security cover under the ESI Act.**
- However, **ESI Corporation** has also **decided to enhance** the **wage ceiling for coverage of employees** under the ESI Act from **Rs. 15,000 to Rs. 21,000.**

Benefits

- **Medical Benefit** - Full medical care to the insured person and his family members with no ceiling on expenditure of the treatment.
- **Sickness Benefit** - In the form of cash compensation at the rate of 70 per cent of wages.
- **Maternity Benefit** - For confinement/pregnancy is payable for 26 weeks, which is extendable by further one month on medical advice.

Disablement Benefit -
a. Temporary disablement benefit (TDB)
b. Permanent disablement benefit (PDB)

Dependents Benefit - Paid in the form of monthly payment to the dependants in cases where death is due to employment injury or occupational hazards.

Other Benefits -
o Funeral Expenses
o Old Age Medical Care
o Confinement Expenses
o Vocational Rehabilitation
o Physical Rehabilitation

- Apart from **various benefits**, the **employees covered under ESI Scheme** are also **entitled to unemployment allowance**.
- There are **two unemployment allowance schemes** namely **Atal Beemit Vyakti Kalyan Yojna (ABVKY) and Rajiv Gandhi Shramik Kalyan Yojna (RGSKY)**.

**Topic- GS Paper II–Social Security**
Source- Business Standard

CBSE introduces facial recognition system for accessing digital documents
Why in the news?

- The **Central Board of Secondary Education (CBSE)** has **introduced 'facial recognition system** which will enable students to download their **digital academic documents of classes 10, 12.**

More about facial recognition system

- This **computer application** matches **human face from a digital image already stored in the database**.
- The **computer and the human interact** to **map facial features**.
- Further, a **live image of the student** will be **matched with the photograph on the CBSE admit card** already stored in the **repository, and once successful,** the **certificate will be emailed** to the **student, as per board**.
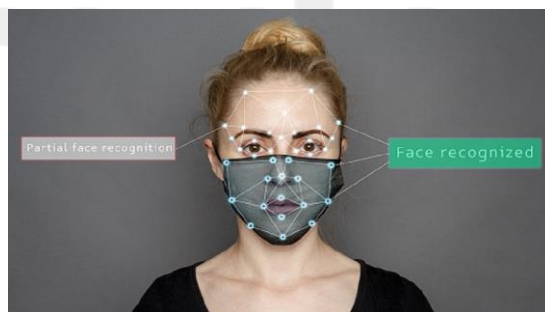
- The application is now available on **Parniaam Manjusha and Digi locker** at **digilocker.gov.in/cbse-certificate.html** for all **2020 records.**
- CBSE has already **pushed 12 crore digital academic documents** in **Digi locker** which can be **opened by a student to access mark sheets**, **pass, and migration certificates.**

Benefits

- The **latest facility of face matching** will immensely help **foreign students** and those who are **unable to open Digi locker account** for any reason such as **Aadhaar card or wrong mobile numbers.**

Topic- GS Paper II–Governance
Source- PIB

Libya ceasefire agreement
Why in the news?

- **Rival parties in Libya** announced a **historic ceasefire** followed by **five days of the 5+5 Libyan Joint Military Commission (JMC)** talks in

Geneva, giving way to the possibility that the **long-drawn conflict** might be **coming to an end.**


Background

- **Libya** has been **embroiled in a tussle** for **power between rival militias** ever since **Muammar Gaddafi** was ousted from power by **NATO-backed forces** and was **killed by rebel militia** in **October 2011.**
- **Gaddafi's death marked the end** of an **eventful 42-year rule** by the **former Army officer** who took over the **reins of power from King Idris** in a **military coup in 1969.**
- In the wake of **Gaddafi's ouster**, dozens of militias led by **multiple warlords scrambled** to **occupy the power vacuum**.
- As a result, **Libya turned into a war zone** with **different militant leaders** claiming control of the **North African nation**.

What is the new ceasefire agreement about?

- As per this **new agreement facilitated** by **the UN**, all **foreign mercenaries** and **armed forces** will have to **withdraw within the next 90 days** and the parties also agreed that **any violations in the ceasefire** will be **dealt by a joint military force,** which will be **under a unified command**.
- The ceasefire, however, **does not apply to UN-designated terrorist groups**. The agreement has also **established a Joint Police Operations** room that will **implement and propose special arrangements** to secure the areas that are **cleared of military units** and **armed groups**.
- Further, the **5+5 have also agreed** to **open the land and air routes** that **connect the regions and cities of Libya**.

About Libya

- **Libya**, officially the **State of Libya**, is a country in the **Maghreb region in North Africa.**
- It is bordered by the **Mediterranean Sea** to the north**, Egypt** to the east, **Sudan** to the southeast, **Chad** to the south, **Niger** to the southwest, **Algeria** to the west, and **Tunisia** to the northwest.
- The **sovereign state** is made of **three historical regions**: **Tripolitania, Fezzan,** and **Cyrenaica.**
- **Libya** is the **fourth largest country** in **Africa** and is the **16th largest country** in the world.
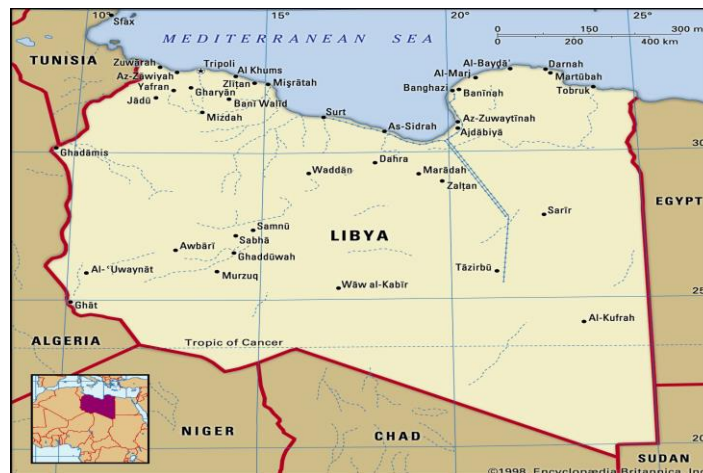
- It has the **10th-largest proven oil reserves** of any country in the world.
- The largest city and **capital, Tripoli**, is in **western Libya**.

Topic- GS Paper II–International Relation
Source- Indian Express

Male govt. employees as single parents entitled to childcare leave

Why in the news?

- **Union Minister of Personnel, Public Grievances, and Pensions** said that the **male employees of the government** are also now **entitled to Child Care Leave.**

Who are entitled?

- The **provision of Child Care Leave (CCL)** will be available only for those male employees who happen to be **"single male parent".**
- **'Single male parent'** includes **unmarried employees**, **widowers, and divorcees**, who may be expected to take up the **responsibility of caring for a child single-handedly.**

Duration and allowance

- **Childcare leave** can be granted at **100 per cent of leave salary** for the first **365 days and 80 per cent of leave salary** for the **next 365 days.**
- An **employee on Child Care Leave** may now leave the **head quarter with the prior approval of Competent Authority.**
- In addition, the **Leave Travel Concession (LTC)** may be **availed by the employee** even if he is on **Child Care Leave.**

- Another **welfare measure** introduced in this regard is that in case of a disabled child, the condition that **childcare leave** can be availed by the parents only till the **child is 22 years of age** has been removed.

Topic- GS Paper II– Social Security
Source-The Hindu

Centers of Excellence for Tribal Welfare

Why in the news?

- Recently **Union Minister of Tribal Affairs** announced to launch two **Centers of Excellence for Tribal Welfare** in collaboration between **Ministry of Tribal Affairs and Art of Living (AoL)** through video conference.
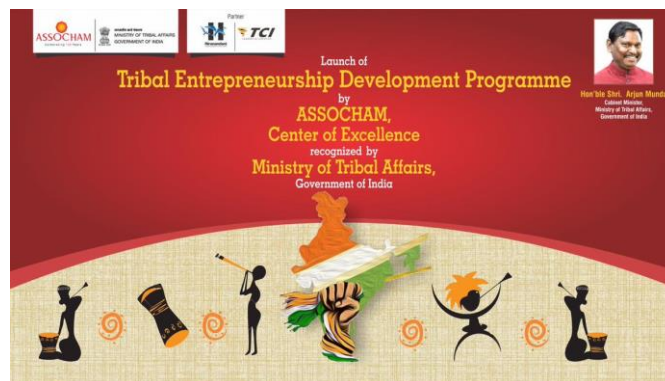
Related Information

- The first initiative **'Strengthening Panchayati Raj Institutions (PRIs')** will be launched in **5 districts covering 30 Gram Panchayts** and **150 villages of Jharkhand**, in creating awareness among **elected representatives of PRI** about **various Tribal Acts**.
- The model is **designed to create the youth volunteers** among the **tribal youths** by giving them **personality development training,** instilling the sense of **social responsibility** among them and thereby **creating the tribal leaders** who will work for **their community in spreading this awareness.**
- **The second is about training 10000** tribal farmers in **Aurangabad District of Maharashtra** on sustainable natural farming based on **Go-Adharith farming techniques.**
- **Farmers** will be helped in getting the **Organic certification** and the marketing opportunities will be made available to them to make each of them **Atmanirbhar Tribal Farmers.**

Topic- GS Paper II–Governance
Source-PIB

PM SVANidhi Scheme

Why in the news?

- **Prime Minister Narendra Modi** has recently **interacted with beneficiaries of PM SVANIDHI Yojana** from **Uttar Pradesh** through video conferencing.

About PM SVANidhi Scheme

- The **PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)** was launched by the **Ministry of Housing and Urban Affairs** on **June 01, 2020** for **providing affordable Working Capital loan** to **street vendors to resume their livelihoods** that have been **adversely affected due to Covid-19 lockdown.**
- It was announced as a part of the **Economic Stimulus-II under the Atmanirbhar Bharat Abhiyan.**

Duration

- The duration of the scheme is **until March 2022.**

Target beneficiaries

- This scheme targets to benefit over **50 lakh Street Vendors.**

Implementation agency

- The Implementation agency of the scheme is **Small Industries Development Bank of India (SIDBI)**

Who are Vendors under this scheme?

- A vendor, **according to the scheme guidelines** is any person engaged in vending of articles, goods, wares, food items or merchandise of daily use or offering services to the public in a street, footpath, pavement etc., from a temporary built up structure or by moving from place to place.
- The goods supplied by them include vegetables, fruits, ready-to-eat street food, tea, pakodas, breads, eggs, textile, apparel, artisan products, books/ stationary etc. and the services include barber shops, cobblers, pan shops, laundry services etc.

Scheme Benefits

- Vendors can **avail a working capital loan** of up to **Rs. 10,000**, which is repayable in **monthly instalments** in the **tenure of one year**.
- On **timely/ early repayment of the loan**, an **interest subsidy @ 7% per annum** will be **credited to the bank accounts of beneficiaries** through **Direct Benefit Transfer** on **quarterly basis.**
- There will be **no penalty on early repayment of loan.**
- The **scheme promotes digital transactions** through **cash back incentives** up to an amount of **Rs. 100 per month.**

- The vendors can **avail the facility of escalation** of **the credit limit on timely/ early repayment of loan.**

Recent Development
- The Ministry **of Housing and Urban Affairs (MoHUA)** has recently entered a Memorandum of Understanding (**MoU) with Swiggy to onboard** street food vendors on its **e-commerce platform.**

Topic- GS Paper II–Governance
Source-PIB

Shipping Ministry issues draft Coastal Shipping Bill, 2020
Why in the news?
- The **Shipping Ministry** has issued draft **'Coastal Shipping Bill, 2020'** for **public consultation**, in accordance with **Prime Minister** vision for **augmenting people's participation** and **transparency in the governance.**
- The **Ministry of Shipping** has **drafted a Coastal Shipping Bill, 2020** in lieu of **part XIV of the Merchant Shipping Act, 1958**.

Some of the highlights of the Bill are as under:
- The **definition of coastal shipping** and **coastal waters** has been **expanded**.
- It is **proposed to do away** with the requirement of **trading license for Indian flag vessels for coastal trade**.
- The **Bill seeks to create a competitive environment** and reduce **transportation costs**, while **encouraging Indian vessels** to **increase their share in coastal shipping.**
- The Bill also **proposes integration of coastal maritime transport** with **inland waterways.**
- There is a **provision for a National Coastal** and **Inland Shipping Strategic Plan.**

Topic- GS II–Governance
Source-PIB

SERB – POWER (Promoting Opportunities for Women in Exploratory Research)

Why in the news?

- **Union Minister for Science & Technology, Earth Sciences** and **Health & Family Welfare** has launched a **Scheme titled "SERB-POWER (Promoting Opportunities for Women in Exploratory Research)",** designed **exclusively for women scientists.**

About SERB – POWER Scheme

The Scheme will have two components namely

- SERB-POWER Fellowship
- SERB- POWER Research Grants.

Salient features of the SERB-POWER Fellowship:

- **Target**: Women researchers in **35-55 years of age**. Up-to **25 Fellowships per year** and not **more than 75** at any point in time.
- **Components of support:** Fellowship of **Rs. 15,000/- per month** in addition to regular income; Research **grant of Rs. 10 lakh per annum**; and **Overhead of Rs. 90,000/- per annum.**
- **Duration:** Three years, without the possibility of extension. Once in a career.

B. Salient features of the SERB – POWER Research Grants:

- POWER Grants will empower women researchers by funding them under following two categories:
  - **Level I** (Applicants from IITs, IISERs, IISc, NITs, Central Universities, and National Labs of Central Government Institutions)
  - The scale of funding is up to 60 lakhs for three years.
  - **Level II** (Applicants from State Universities / Colleges and Private Academic Institutions)
  - The scale of funding is up to 30 lakhs for three years.
- **POWER Grant** will be **regulated through terms of reference** conforming to **SERB-CRG** (Science and Engineering Research Board-Core Research Grant) guidelines.
- It is proposed to **institute 25 POWER Fellowships** annually.
- A **total of 50 Power Grants** each will be sanctioned in **Level I & Level II per annum.**

Significance

- These **Schemes of the Government** will **empower women scientists** and **cultivate women friendly culture** in our academic and **research institutions** and ensure more **women in leadership positions** in decision making bodies.

Related Information

Fund for Improvement of Science and Technology (FIST) Programme

- Recently, the **Department of Science and Technology** has called for restructuring its **Fund for Improvement of Science and Technology (FIST) Programme.**

About Fund for Improvement of Science and Technology (FIST) Programme

- The **FIST programme for Infrastructure in Universities** and **Higher Educational Institutions** aims to cater to **high-end requirements of startups** and industries and align it with the government's **'self-reliant India' campaign.**
- The **FIST programme** will now be **reinvented as FIST 2.0** to orient it towards **the goal of 'Aatmanirbhar Bharat'** to create **research and development infrastructure.**
- It supports scaling up of the **network of infrastructural facilities** for **teaching and research in universities** and **higher educational institutions**.
- FIST 2.0 will also link up programmes like FIST, **Sophisticated Analytical Instrument Facilities (SAIF**), and **Sophisticated Analytical & Technical Help Institutes (SATHI),** all of which are designed to set up **science and technology infrastructure centers** at department, university, regional and national level,

Topic- GS II–Women Empowerment and Education

Source-The Hindu

Dam Rehabilitation and Improvement Project – Phase II and Phase III

Why in the news?

- The **Cabinet Committee on Economic Affairs** has **approved the Dam Rehabilitation and Improvement Project (DRIP) Phase II** & **Phase III** with the **financial assistance of the World Bank (WB)** and **Asian Infrastructure Investment Bank (AIIB).**
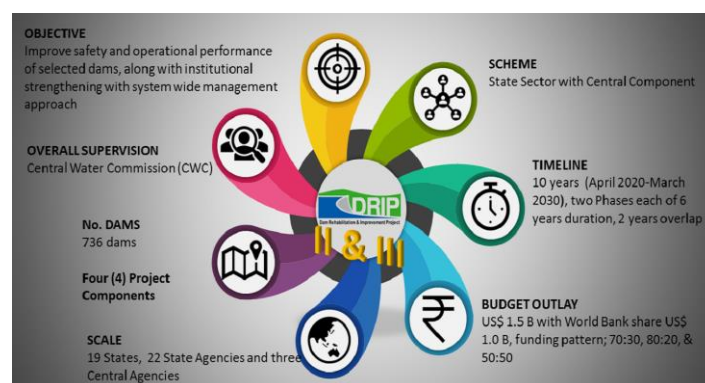
About the Project

Objective

- To **improve the safety and operational performance** of selected dams across the whole country, along with **institutional strengthening with system** wide management approach.

- **The Scheme** envisages **comprehensive rehabilitation of 736 existing dams located across the country.**

Tenure

- The **Project will be implemented** over a **period of 10 years duration in two Phases**, each of **six years duration** with two years overlapping from **April 2021 to March 2031.**

To achieve the objective, DRIP Phase II & Phase III has following components:

- o Rehabilitation and improvement of dams and associated appurtenances,
- o Dam safety institutional strengthening in participating States and Central agencies,
- o Exploration of alternative incidental means a few of selected dams to generate the incidental revenue for sustainable operation and maintenance of dams, and
- o Project management.

Topic- GS II–Governance
Source-PIB

International Matters

Quadrilateral Security Dialogue (Quad)
Why in the news?
- Recently U.S. **Secretary of State Mike Pompeo** has directly **criticized China** for the **coronavirus crisis** as well as its actions in the **Indo-Pacific region**, and he also called for the **Quadrilateral dialogue, or "Quad",** to **"collaborate" in countering China**.

About Quadrilateral Security Dialogue (Quad)
- It is the **informal strategic dialogue** between **India, USA, Japan and Australia** with a **shared objective** to ensure and support a **"free, open and prosperous" Indo-Pacific region.**
- The **Ministers** met also **discuss collective efforts** in our **shared commitments** and **close cooperation on counter terrorism**, mentoring, assistance in disaster relief, airtime security, cooperation, development, finance and cybersecurity efforts.
- The **idea of Quad** was first mooted by **Japanese Prime Minister Shinzo Abe** in **2007.** However, the idea **couldn't move ahead with Australia** pulling out of it**, apparently due to Chinese pressure.**
- In December 2012, **Shinzo Abe again** floated the concept of Asia's **"Democratic Security Diamond"** involving **Australia, India, Japan and the US** to safeguard the **maritime commons from the Indian Ocean** to the **western Pacific.**
- In **November 2017, India, the US, Australia** and **Japan** gave shape to the long-pending **"Quad" Coalition** to develop a **new strategy** to keep the **critical sea routes** in the **Indo-Pacific free** of **any influence (especially China).**
- **Quad is criticised by China** as **Asian version of the North Atlantic Treaty Organization (NATO).**

Topic- GS Paper II—International Organization
Source-The Hindu

Food and Agriculture Organization
Why in the news?
- On **75th Anniversary of Food and Agriculture Organization (FAO)** on **16th October 2020**, **Prime Minister of India** will release a commemorative coin of **Rs 75 denomination to mark the long-standing** relation of **India with FAO.**

About Food and Agriculture Organization
- It is a **specialized agency of the United Nations** that **leads international efforts** to **defeat hunger** and **improve nutrition and food security.**

The Food and Agriculture Organization of the United Nations or FAO

- It was **established in 1945** with the **objective of eliminating hunger** and **improving nutrition and standards of living** by **increasing agricultural productivity.**
- Its secretariat is in **Rome, Italy.**

Some of the important key programmes of FAO are
  a. Food Security Programmes
  b. Codex Alimentarius
  c. International Plant Protection Convention (IPPC) etc.,

About the Codex Alimentarius Commission
- It has been **established by FAO and WHO** is an **international food standard setting body.**
- It has **recently adopted three Codex standards** for black, white, and green pepper, cumin and thyme owing to India's efforts to benchmark global spices trade.
- With the **adoption of codex standards**, spices have been included for the **first time as commodities** that will have **universal standards.**

International Plant Protection Convention (IPPC)
- It aims to protect **cultivated and wild plants** by preventing the **introduction and spread of pests.**

India & FAO
- **FAO council approved India's membership** to the **Executive Board of the World Food Program (WFP)** for 2020 and 2021.
- It has also decided to observe **"International Year of Millets"" in 2023**, upon the request from **Indian government.**
- **India celebrated 2018 as "National Year of Millets"** and notified millets as nutri-cereals & allowed its inclusion in Public Distribution System (PDS).
- **WFP is the world's largest humanitarian agency that fights hunger by providing food** assistance, school meals, cash-based transfers etc.
- In India, WFP has moved from providing direct food aid to providing technical assistance and capacity building services.
- **The Ministry of Agriculture is the nodal agency.**

Note:

- **Indian Civil Service Officer Dr. Binay Ranjan Sen** was the Director **General of FAO** during **1956-1967.**
- The **World Food Programme**, which has won the **Nobel Peace Prize 2020,** was established during his time.
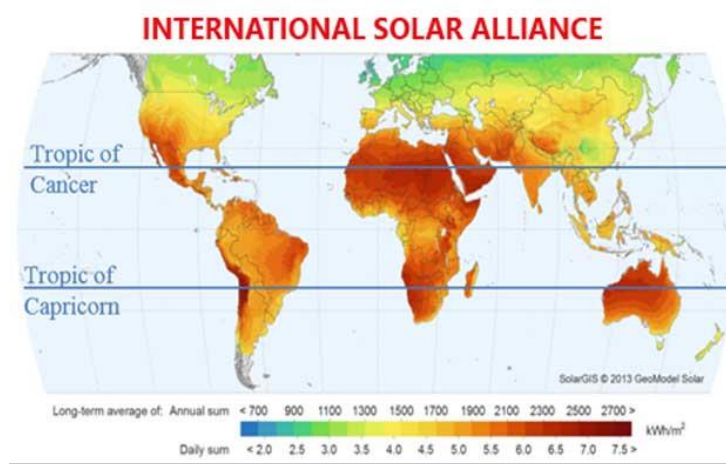
Topic- GS Paper II–International Organization
Source- PIB

International Solar Alliance (ISA)

Why in the news?

- Recently the **Third Assembly of the International Solar Alliance** has been attended by **34 ISA Members ministers.**

Highlights

- **India** has been **re-elected as the President of the International Solar Alliance (ISA)** and **France as the Co-President for a term of two years.**
- The assembly also **approved the initiatives of the ISA Secretariat** in **institutionalizing ISA's engagement** with the **private and public corporate sector** through the **Coalition for Sustainable Climate Action (CSCA).**
- The **assembly witnessed** the conferment of the **Visvesvaraya award which recognizes** the countries with **maximum floating solar capacity** in each of the **four regions of ISA.**
- The **awards went to Japan** for the **Asia Pacific region** and the **Netherlands for Europe and Others region.**

About International Solar Alliance

- It is an **Indian initiative**, jointly **launched by India and France in Paris,** on the **sidelines of COP-21**, the **UN Climate Conference** held at **Paris**.
- The **ISA is headquartered** in **Gurgaon, India.**
- It **aims to channel $300 billion** in **10 years to promote renewable energy projects** under a **global mega fund for clean energy.**

Membership
- The **121 prospective member countries** (those falling between the Tropics of Cancer and Capricorn) of the **ISA and are also the United Nations member**, can join the **Alliance by signing and ratifying the Framework Agreement** or by **acceptance or approval.**
- **UN member countries** which are **located beyond the Tropics** can join the **ISA as Partner Countries".**
- UN including its organs can **join the ISA as "Strategic Partners".**

Recent Developments
- **Global Solar Bank** - ISA plans to **setup global solar bank** to **finance $150 billion of power projects.**
- ISA will **approach multilateral development banks (MDBs)** to create a **special purpose vehicle (SPV).**
- This SPV would become a **Global Solar Bank.**

Assembly
- The **First Assembly of the ISA** was held in **October 2018** in **Greater Noida, India.**
- The **Second Assembly of the ISA** was convened in **2019 at New Delhi**.
- The **Third Assembly of the ISA** will be convened from **14 to 16 October 2020 in virtual mode.**

Topic- GS Paper II–International Organization
Source- The Hindu

United Nations Relief and Works Agency

Why in the news?
- Recently **India** has **contributed one million dollars** to the **United Nations Relief and Works Agency (UNRWA)** for **Palestine Refugees in Near East**.

About United Nations Relief and Works Agency (UNRWA)
- It was established by **United Nations General Assembly Resolution** in **1949,** following the **1948 Arab-Israeli conflict.**
- It was **constituted to carry out direct relief** and **works programmes for Palestine refugees.**
- It defines **Palestine refugees as persons** whose **normal place of residence** was **Palestine during the period 1 June 1946 to 15 May 1948,** and who lost both **home and means of livelihood** because of the **1948 conflict.**

- It has **contributed to the welfare** and **human development of four generations** of Palestine refugees.
- The **Agency's services encompass education**, health care, relief and social services, camp infrastructure and improvement, microfinance, and emergency assistance, including in times of armed conflict.

Regions covered

- The **aid is provided in five areas of operation**: Jordan, Lebanon, Syria, the Gaza Strip, and the West Bank, **including East Jerusalem** whereas the aid for Palestinian refugees outside these **five areas is provided by UNHCR.**

Funding

- It is **funded almost entirely by voluntary contributions** from UN Member States.
- It also receives some funding from the **Regular Budget of the United Nations,** which is used **mostly for international staffing costs.**

Related Information
United Nations Relief and Works Agency vs. United Nations High Commissioner for Refugees

- **UNRWA** is separate from the **office of the United Nations High Commissioner for Refugees (UNHCR)**, the **main UN refugee agency**, which was **created in 1950.**

Region covered

- **UNRWA** is the only **UN agency dedicated to helping refugees** from a **specific region whereas UNHCR** is responsible for aiding other refugees all over the world.

Refugee status

- **UNRWA allows refugee status** to be inherited by some descendants but UNHCR has a **specific mandate to aid its refugees** to **eliminate their refugee status** by **local integration in current country**, resettlement in a third country or repatriation.

Topic- GS Paper II– International Organization
Source- The Hindu+ unrw.org

United Nations Alliance of Civilizations
Why in the news?

- Recently the United Nations Alliance of Civilizations (UNAOC) has condemned the beheading of a teacher in the northwestern suburbs of Paris in France.
- The French teacher was killed after he taught freedom of speech and showed caricatures depicting the Islamic prophet Muhammad to his students.

About United Nations Alliance of Civilizations (UNAOC)

- The United Nations Alliance of Civilizations (UNAOC) was **established in 2005**, as the **political initiative of Mr. Kofi Annan**, former **UN Secretary-General** and co-sponsored by the **Governments of Spain and Turkey.**

- A **High-Level Group of experts** was **formed by Mr. Annan** to explore the **roots of polarization** between **societies and cultures today**, and to recommend a practical **programme of action** to **address this issue.**
- The **Report of the High-Level Group** provided analysis and **put forward practical recommendations** that **form the basis for the implementation plan** of the **United Nations Alliance of Civilizations.**
- The **United Nations Alliance of Civilizations High Representative** and **Secretariat** are based and **operating from New York.**

Functions
- The **Alliance maintains a global network of partners** including **states, international and regional organizations, civil society groups, foundations,** and the **private sector to improve cross-cultural relations** between **diverse nations and communities**.
- **In its 2006 report, the High-Level Group identified four priority areas for action:**
  a. Education
  b. Youth
  c. Migration
  d. Media
- **UNAOC project activities**, fashioned **around these four areas**, which can **play a critical role** in **helping to reduce cross-cultural tensions** and to **build bridges between communities.**
- In **2019, Mr. Moratinos** announced that he **intends to propose** adding "**Women as peace mediators**" as an additional pillar of **UNAOC.**

Topic- GS Paper II–International Organization
Source- The Hindu

SCO Startup Forum
Why in the news?
- Recently the **first-ever SCO Startup Forum** will be launched on **27th October 2020** ahead of the **Shanghai Cooperation Organization (SCO)** trade ministers meeting on **28th October 2020.**
- The forum will lay the **foundation for multilateral cooperation** and engagement among the **SCO Member States** to **develop and hone their startup ecosystems**, collectively.

Key Focus area
- **Innovation and Startups** will be the **key focus area of SCO Heads of Government** meeting on **30th November 2020** to be **hosted by India.**

India and Startup

- **India** is **currently the third-largest startup ecosystem** in the world with over **35,000 startups**, close to **25% of which are core technology startups** operating in areas of **AI, Robotics, Cloud Computing, IoT, Digital Health, Financial & Education Technology**.
- The '**Startup India'** has launched **10 bilateral bridges** since its **inception and has helped** many **technology-based startups** to expand their **businesses to global markets**.

Related Information

About Shanghai Cooperation Organization

- It is a **Eurasian political, economic, and military organization** 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 Organization** 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 **National Disaster Response Force (NDRF).**
- The **5th meeting of Shanghai Cooperation Organization (SCO)'s Heads of Ministries and Department of Science and Technology** was held in **Russia.**
- In this meeting, **members have agreed to the 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 SCO Secretary-General and the Director of the Executive Committee of the SCO RATS are appointed by the Council of Heads of State for a term of three years.**

Topic- GS Paper II– International Organization
Source- The Hindu

Financial Action Task Force (FATF)
Why in the news?

- Global terror financing watchdog **Financial Action Task Force (FATF)** has decided to keep **Pakistan on its "grey list"** till **February 2021,** despite **progress by Islamabad** on meeting **international anti-terrorism financing norms.**

About Financial Action Task Force

- It is a **global watchdog** that was founded to **tackle money laundering initially**, but its **role became prominent post** the **9/11 terror attacks.**
- It was set up **in 1989 by the G7 countries,** with headquarters in **Paris**.

Objectives

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

- It is therefore a **"policy-making body"** which works to **generate the necessary political** will to bring about **national legislative and regulatory reforms in these areas.**
- It is **empowered to curtail** financing of **UN-designated terrorist groups**.
- The **FATF monitors countries** to ensure they **implement the FATF Standards fully** and **effectively and holds countries** to account that do not comply.

Members
- The FATF currently **comprises 37 member jurisdictions** and **2 regional organizations**, representing **most major financial centers** in all parts of the globe.
- The **two regional organizations** are – **Gulf Cooperation Council** and the **European Commission**.
- **India** became a **full member** in **2010.**

Financial Action Task Force has two lists:

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

Consequences of being in the FATF grey list:

Considered in the grey list may face:
a. Economic sanctions from IMF, World Bank, ADB
b. Problem in getting loans from IMF, World Bank, ADB and other countries
c. Reduction in international trade
d. International boycott

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

Note:
- As of **2019, FATF** has **blacklisted North Korea and Iran** over terror financing.
- **Twelve countries** are in the **grey list,** namely**: Bahamas, Botswana, Cambodia, Ethiopia, Ghana, Pakistan, Panama, Sri Lanka, Syria, Trinidad and Tobago, Tunisia,** and **Yemen.**

**Topic- GS Paper II–International Organization**
Source- The Hindu

The US 'State Sponsor of Terrorism' list
Why in the news?
- Recently, the **US has removed Sudan** from its **State Sponsor of Terrorism list**, of which the **North African country** was a part for **over 27 years.**

State sponsors of terrorism
Designation dates of countries determined to have repeatedly provided support for acts of international terrorism.

IRAN
Jan 19, 1984

NORTH KOREA
Nov 20, 2017

UNITED
STATES

SUDAN
Aug 12, 1993

SYRIA
Dec 29, 1979
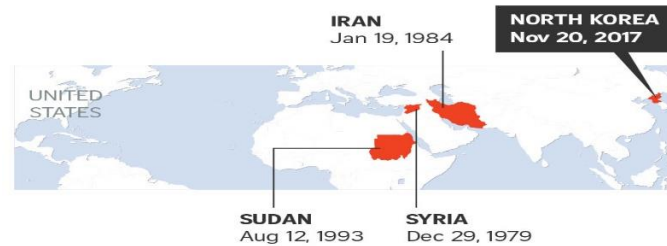
Source: US DEPARTMENT OF STATE
STRAITS TIMES GRAPHICS

What is the US State Sponsor of Terrorism list?
- The US Secretary of State (the minister primarily in charge of foreign relations) has been given **powers to designate countries** that "**have repeatedly provided support for acts of international terrorism**" as "**State Sponsors of Terrorism".**
- According to the **State Department website**, the US can place **four categories of sanctions** on countries part of the list:
    a. restrictions on U.S. foreign assistance
    b. a ban on defence exports and sales
    c. certain controls over exports of dual use items
    d. miscellaneous financial and other restrictions.
- Sanctions can also be **placed on countries and persons** that engage in **certain trade with designated countries**.
- After **Sudan's delisting**, three countries remain with the **designation: Syria (listed in 1979), Iran (1984)** and **North Korea (2017).**
- Apart from **Sudan**, other countries which were once part of the list and later **removed include Iraq** (first removed in 1982, relisted in 1990, and again removed in 2004), **South Yemen** (1990, when it merged with North Yemen), Libya (2006) and Cuba (2015).

When and how was Sudan put in the list in the first place?
- The **US added Sudan** to the **terrorism list in 1993**, after it was **accused of harbouring groups** such as **Hezbollah and Palestinian militant outfits** which **Washington deems as terrorists.**
- After its **designation in the US terrorism list**, **Sudan** was cut off from the **global economy**, and was **starved of foreign investment.**

About Sudan
- **Sudan** officially the **Republic of the Sudan** is a country in **North-East Africa.**
- It is **bordered by Egypt to the north**, **Libya to the northwest**, **Chad to the west**, the **Central African Republic** to the **southwest**, **South Sudan** to the **south**, **Ethiopia** to the **southeast**, **Eritrea** to the **east**, and the **Red Sea** to the **northeast**.

- It is the **Africa's third-largest country** and the **third largest** in the **Arab world.**
- It was the **largest country in Africa** and the **Arab world** by area before the **secession of South Sudan in 2011.**

Topic- GS Paper II—International Relation
Source-Indian Express

India, US sign landmark defence pact BECA
Why in the news?
- **India and the US** have **recently signed the Basic Exchange and Cooperation Agreement (BECA)** for **geo-spatial cooperation**.

About BECA
- BECA is the **fourth and final "foundational" understanding the US has with India**.
- It is a **communication agreement between the National Geospatial-Intelligence Agency of the US Department of Defence** and the **Ministry of Defence of the Government of India.**
- It **allows India and the US** to share **military information** including **advanced satellite and topographic data** such as **maps, nautical and**

aeronautical charts and **geodetic, geophysical, geomagnetic** and **gravity data**.

Significance

- It will **enable India to use US geospatial maps** to **enhance military accuracy** of **automated hardware systems and weapons** such as **cruise and ballistic missiles.**

Related Information

The two countries have already signed

a. General Security of Military Information Agreement (2002)
b. Logistics Exchange Memorandum of Agreement (2016)
c. Communications Compatibility and Security Agreement (2018) to exchange military logistics and enable secure communications.

About General Security of Military Information Agreement (GSOMIA)

- It has been **signed in 2002.**
- It allows militaries to share the **intelligence gathered** by them.
- An extension to the **GSOMIA, the Industrial Security Annex (ISA),** was **signed at the 2+2 dialogue** in **2019**.

About Logistics Exchange Memorandum of Agreement (LEMOA)

- It has been **signed in 2016**.
- It **allows both countries** to have access to **each other's designated military facilities** for **refueling and replenishment**.

About Communications Compatibility and Security Agreement (COMCASA)

- It has been **signed in 2018.**
- It **aims to provide a legal framework** for the **transfer of highly sensitive communication security equipment** from the **USA to India** that will **streamline and facilitate interoperability** between their armed forces.

Topic- GS Paper II–International Relation
Source-Indian Express

India Post, US Postal Service sign agreement for electronic exchange of customs data

Why in the news?

- Recently **Department of Posts** and **United States Postal Service, USPS** have **entered into an agreement for electronic exchange of customs data** related to **postal shipments exchanged** between the **two countries**.

Background
- **USA is the top export destination for India** which is also **reflected in exchange of goods** through **postal channel.**
- In **2019, around 20 per cent of outbound EMS** and **30 per cent of Letters and Small Packets transmitted by India Post** were destined to **USA whereas 60 per cent of the Parcels** received by **India Post were originated from USA.**

About Agreement for Electronic Exchange of Customs Data
- The agreement will make it **possible to transmit and receive electronic data of international postal items** prior to their **physical arrival** at the destination and would **enable customs clearance of postal items** in advance in line with the **evolving global postal framework.**
- This will also **improve the performance of postal services** in terms of **reliability, visibility, and security.**

Objectives
- The **primary objective** that will be **served by this agreement** is to **facilitate ease of exports for small and large exporters through postal channels from different parts** of the country and will contribute towards making **India an Export Hub** for the world.

Significance
- **Exchange of Electronic Advance Data** as per the **Agreement will be a key driver towards promoting mutual trade** with emphasis on the exports from **different parts of India to USA** through postal channel.
- USA is a **major destination of MSME products, Gems and Jewelery, Pharmaceuticals** and other **local products from India.**
- This will **fulfill a major demand of export** industry to **expedite customs clearances of export items.**

Topic- GS Paper II–International Relation
Source-AIR

Economic Development

Google India launches Make Small Strong campaign

Why in the news?

- **Google India** has recently announced the **launch of its nationwide campaign "Make Small Strong"** to **help support small businesses** and **drive demand** through **customer support**.

About the Google Campaign

- The **tech giant's "Make Small Strong' campaign** is meant to **"rally support from the citizens** for **small businesses by buying locally**, leaving reviews and **ratings and promoting their favourite retailers** on **social media** to help **generate demand for these businesses**.
- The **new initiative** is based on **feedback from Small and Medium sized Businesses (SMBs).**
- It was announced as part of a **research by Google in collaboration** with **Kantar.**
- As per the report, **5 out of 10 businesses** are **engaged with customers through digital channels.**
- However, **92% of businesses** are **facing customer-related challenges**, **revenue loss** due to **less demand and payment of fixed costs**.
- So, the need to go **digital is necessary and SMBs** need to be **digitize fast to support business recovery** during the current crisis.

Topic- GS Paper III–Economics
Source-Indian Express

India's external debt

Why in the news?

- Recently, **India's external debt** declined to **US$ 554.5 billion** end **June 2020,** recording a **decrease of US$ 3.9 billion** over its level at **end-March 2020.**

Factors responsible for Decline in India's External Debt
Decrease in long-term debt

- The **long-term debt** (with original maturity of above one year) was **placed at US$ 449.5 billion**, recording a **decrease of US$ 2.0 billion over** its level at **end-March 2020.**

Decrease in short-term debt
- The **share of short-term debt** (with original maturity of up to one year) in **total external debt declined to 18.9%** at **end-June 2020 from 19.1%** at **end-March 2020.**
- The **ratio of short-term debt** (original maturity) to **foreign exchange reserves declined to 20.8%** at end-June 2020 (22.4% at end-March 2020).

Decrease in outstanding debt of government and non-government sectors
- The **borrower-wise classification** shows that the **outstanding debt of both government** and **non-government sectors** decreased at **end-June 2020.**

Components of India's External Debt
- The **US dollar denominated debt** remained the **largest component of India's external debt** at **end-June 2020**, followed by the **Indian rupee, yen, SDR and the euro.**
- The **share of outstanding debt** of **non-financial corporations** in **total external debt** was the **highest followed** by **deposit-taking corporations (except the central bank)**, general government and **other financial corporations.**
- The **instrument-wise classification** shows that the loans were the **largest component of external debt** followed **by currency and deposits**, **trade credit** and **advances and debt securities**.
- The **commercial borrowings** remained the **largest component of external debt** followed by **non-resident deposits** and **short-term trade credit.**

Topic- GS Paper III–Economics
Source-Business Standard

Government names 3 new members to RBI monetary panel
Why in the news?
- The **government** has **finally appointed three economists — PMEAC member Ashima Goyal**, **NCAER's Shashanka Bhide** and **IIM-Ahmedabad professor Jayanth Varma** — as new members of the RBI's monetary policy committee (MPC) to decide on **interest rates.**
- The **new members nominated** have been given a **four-year term.**
- The other **three ex-officio members** of the **MPC are Reserve Bank Governor Shaktikanta Das, Deputy Governor** (in-charge of monetary policy) **Michael Patra** and **executive director Janak Raj.**
- The panel is chaired by **RBI governor Shaktikanta Das**.
- The **six-member Monetary Policy Committee** has the mandate to maintain **annual inflation at 4 percent**, with an **upper tolerance of 6 percent** and a **lower tolerance of 2 percent.**

- The **last meeting of the panel** was held in **August wherein the committee** had **decided to keep interest rates** unchanged in a **bid to tame inflation.**

Related Information

Prime Minister's Economic Advisory Council (PMEAC)

- It is a **non-constitutional and non-statutory**, **non-permanent** and **independent body.**
- It is constituted with the **prime and sole aim to analyse all critical issues**, economic or otherwise, referred to it by the **prime minister and advising him thereon.**
- It is mandated to **give advice to prime minister** on **economic matters** such as inflation, GDP changes, export-import changes, creating supporting environment for increased trade and commerce.

Functions

- They **submit periodic reports to Prime Minister** related to macroeconomic developments and issues which will have **implications of the economic policy.**
- Analyse any topics, issues assigned by the PM and provide advice to them.
- **Analyse macroeconomic issues** having high importance and present the views to PM and any other task which is assigned by Prime Minister.

Topic- GS Paper III–Economics
Source-TOI

Union Finance Minister announces Stimulus to boost Demand in the Economy

Why in the news?

- **Union Finance Minister** announced **two sets of measures to generate consumption** demand and **boost capital spending in the economy**.

Proposals to stimulate consumer spending has two components

- LTC Cash Voucher Scheme
- Special Festival Advance Scheme

About LTC Cash Voucher Scheme
- **Under LTC Cash Voucher Scheme**, the **Government** has decided to **give cash payment to employees in lieu** of **one LTC during 2018-21**, in which full payment on **Leave encashment and tax-free payment of LTC** fare in **3 flat-rate slabs** depending on **class of entitlement will be given.**
- An employee, **opting for this scheme**, will be **required to buy goods / services worth 3 times** the fare and **1 time the leave encashment before 31st March 2021.**
- The items bought should be those **attracting GST of 12% or more**. Only **digital transactions are allowed**, **GST Invoice** to be produced.
- The **biggest incentive for employees** to **avail the LTC Cash Voucher Scheme** is that in a **four-year block ending in 2021**.

About Special Festival Advance Scheme
- **Special Festival Advance Scheme** which was **meant for non-gazetted government employees** is being revived as a **one-time measure, for gazetted employees too.**
- **All central govt. employees** can now get **interest-free advance of Rs. 10,000**, in the form of a **prepaid RuPay Card, to be spent by March 31, 2021.**

Capital Expenditure Boost for States
- A **special interest-free 50-year loan to states** is being issued, for **₹ 12,000 crore capital expenditure** (the interest-free loans given to states are to be spent by March 31, 2021):
  - ₹ 200 crore each for 8 North East states
  - ₹ 450 crore each Uttarakhand, Himachal
  - ₹ 7,500 crore for remaining states, as per share of Finance Commission's devolution
- A **special interest-free 50-year loan** to states is being issued, for **₹ 12,000 crore capital expenditure.**

Topic- GS Paper III–Economics
Source- The Hindu + Hindustan Times

GST Council still divided on States' compensation

Why in the news?

- The **Goods and Services Tax (GST) Council** failed again to **reach an agreement on the contentious issue of borrowings** to meet **shortfalls in cess collections** used to **recompense the States for revenue losses** from the **indirect tax implementation.**
- **Finance Minister**, however, said the **Centre is ready to help the States** who have **decided to borrow to bridge the cess shortfall.**

Background

- The **GST became applicable** from **1st July 2017** after the enactment of the **One Hundred and First Constitution Amendment Act, 2016.**
- With GST, many **central and state indirect taxes** merged into a **single tax.**
- **The Centre** promised **compensation to the States** for any shortfall in **tax revenue due to GST implementation for a period of five years.**
- This promise convinced many reluctant **States to sign on to the new indirect tax regime.**

What is GST Compensation?

- Under the **GST (Compensation to States) Act, 2017**, states are guaranteed compensation for **loss of revenue on account of implementation of GST** for a **transition period of five years (2017-22).**
- The **compensation is calculated based** on the **difference between the states' current GST revenue** and the protected revenue after estimating an **annualised 14% growth rate** from the **base year of 2015-16.**
- **GST Compensation Cess or GST Cess** was introduced by the government to **compensate for the possible revenue losses** suffered by such **manufacturing states.**
- **Compensation cess** is levied on **five products considered to be 'sin' or luxury** as mentioned in the **GST (Compensation to States) Act, 2017** and includes items such as- **Pan Masala, Tobacco, and Automobiles** etc.
- The **compensation cess payable to states** is calculated based on the **methodology specified in the GST (Compensation to States) Act, 2017.**

Topic- GS Paper III– Economics
Source- The Hindu

State Developments Loans

Why in the news?

- The **Reserve Bank of India (RBI)** will **conduct first-ever open market operation (OMO)** purchase of **State Developments Loans (SDLs)** on **October 22, 2020.**

More in the news

- The **OMOs worth ten thousand crore rupees** will be conducted as a **special case during the current financial year** with an **aim to improve liquidity** and **facilitate efficient pricing.**
- The **size of the auctions** may be **enhanced subsequently**, depending on the **market response.**
- The **RBI will purchase the SDLs** through a **multi-security auction** using the **multiple price method.**
- At present, **SDLs are eligible collateral** for the **Liquidity Adjustment Facility (LAF) along with T-bills, dated government securities and oil bonds.**
- The OMOs will be conducted for a basket of SDLs comprising securities issued by states.

About State Development Loans (SDLs)

- State Development Loans (SDLs) are **dated securities issued by states** for meeting their **market borrowings requirements**.
- In effect, the SDL are **like the dated securities issued** by the **central government.**

Purpose

- The **purpose of issuing State Development Loans** is to meet the budgetary needs of state governments. Each state can borrow upto a set limit through State Development Loans.

SDL securities are eligible securities for SLR and LAF of the RBI

- The **SDL securities** issued by states are **credible collateral for meeting the SLR requirements of banks** as well as collateral for **availing liquidity** under the **RBI's LAF including the repo.**

SDL as a market based borrowing arrangement for states

- One **remarkable feature of SDL** is that it is a **market-oriented instrument for states** to **mobilize funds** from the open market.
- **Higher the fiscal strength of a state**, lower will be the **interest rate (yield)** it must pay for the **SDL borrowings.**

Topic- GS Paper III—Economics
Source- The Hindu

India's First Seaplane Project
Why in the news?

- The **first of the five seaplane** services in **Gujarat, connecting Sabarmati River in Ahmedabad** to the **Statue of Unity in Kevadia in Narmada district**, will be inaugurated on **October 31**, the **birth anniversary of Sardar Vallabhbhai Patel.**

What is India's first seaplane project?

- The **first seaplane project of the country** is part of a **directive of the Union Ministry of Civil Aviation.**
- As per the directive, the **Airports Authority of India (AAI)** requested state governments of **Gujarat, Assam, Andhra Pradesh and Telangana** and the administration of **Andaman & Nicobar** to propose potential **locations for setting up water aerodromes** to **boost the tourism sector.**
- A **seaplane is a fixed-winged aeroplane** designed for **taking off and landing on water**. It offers the **public the speed of an aeroplane** with the **utility of a boat.**

There are two main types of seaplane:
   a. Flying boats (often called hull seaplanes)
   b. Floatplanes.

What impact will it have on the environment?

- The **water aerodrome** is **not a listed project/activity** in the **Schedule to the Environmental Impact Assessment Notification, 2006** and its amendments.
- However, the **Expert Appraisal Committee** was of the opinion that the **activities proposed under the water aerodrome project** may have a similar type of impact as that of an airport.
- In Narmada, **the Shoolpaneshwar Wildlife Sanctuary** is located at an **approximate aerial distance of 2.1 km** from the **proposed project site** in **south-west direction while the nearest reserve forest** is situated at a **distance of 4.7 meters in east direction**, which serves **local sensitive species of fauna**.

Topic- GS Paper III–Infrastructure
Source- AIR

Indian Academy of Highway Engineers (IAHE)
Why in the news?
- Recently the **Fifth General Council meeting of Indian Academy of Highway Engineers (IAHE)** was held under the **chairmanship of Union Minister for Road Transport and Highways.**

भारतीय राजमार्ग अभियन्ता अकादमी
Indian Academy of Highway Engineers (Formerly NITHE)
सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार
Ministry of Road Transport and Highways, Government of India

About Indian Academy of Highway Engineers (IAHE)
- It has been **created in 1983; IAHE** has been providing **training to highway engineers and professionals** working in etc.
- Accordingly, **Ministry** constituted a **committee under the chairmanship Shri Y. S. Malik**, former **Secretary, Ministry of Road Transport & Highways (MoRTH)** to give recommendations to **transform IAHE** into a **world-class premier institute** in **highway sector**.
- The **council deliberated** the **recommendations of the Committee** to **enhance the scope of the IAHE** to **three distinct functions**, namely:
(i) Training
(ii) Applied Research and Development in the Highways and Public Transport Sector, and
(iii) Road Safety and Regulation and decided to take further necessary action to transform IAHE into a world-class premier institute in highway sector.

Topic- GS Paper III- Infrastructure
Source- PIB

Institute of Chartered Accounts of India
Why in the news?
- Recently the **Union Cabinet** has approved the **Mutual Recognition Agreement** between the **Institute of Chartered Accounts of India (ICAI)** and the **Malaysian Institute of Certified Public Accountants (MICPA)** to enable appropriately **qualified CA (Chartered Accountant) members** of either **Institute to join** the other **Institute by receiving appropriate credit** for their **existing accountancy qualification.**

The Institute of Chartered Accountants of India

About Institute of Chartered Accountants of India (ICAI)
- The Institute of Chartered Accounts of India (ICAI) is a **statutory body.**
- It has been established under **"The Chartered Accountants Act, 1949"** to **regulate the profession** of Chartered Accountants in India.
- It functions under the **administrative control of the Ministry of Corporate Affairs**.
- It is the **second largest professional body of Chartered Accountants** in the world, with a **strong tradition of service** to the **Indian economy in public interest.**
- The **affairs of the ICAI** are **managed by a Council** in accordance with the provisions of the **Chartered Accountants Act, 1949** and the **Chartered Accountants Regulations, 1988.**

Members
- Out of **40 members of the institute**, **8** are **nominated by the Central Government** generally representing the **Comptroller and Auditor General of India**, **Securities and Exchange Board of India**, **Ministry of Corporate Affairs**, **Ministry of Finance,** and other stakeholders.

Topic- GS Paper III– Economics
Source- The Hindu

CPI-IW base year revised to 2016
Why in the news?
- The **Labour and Employment Ministry** has recently revised the base year of the **Consumer Price Index for Industrial Workers (CPI-IW)** from **2001 to 2016.**
- The **Labour and Employment Ministry** also said that in the future, the **Bureau would work** towards **revising the index every five years**.

Dearness quotient

Consumption trends of the working class have changed over the years. To reflect this, the Centre has revised the base year for CPI-IW to 2016. A look at the tweaks.

Change in CPI-IW weightage (in %)

■ Food and beverages ■ Education, health, transport ■ Housing ■ Pan-supari* ▢ Others**

2001: 46.2 | 23.26 | 15.27 | 2.27 | 13

2016: 39.17 | 30.31 | 16.87 | 2.07 | 11.58

*Chewing-tobacco products ** Fuel, light, clothing
CPI-IW: Consumer Price Index-Industrial Workers
Graphic: Sarvesh Kumar Sharma/Mint
Source: Labour ministry

Highlight of the Revised CPI-IW
- The Minister also **released the first index**, with **2016 as the base year**.
- The index for September, calculated for **88 centres** as opposed to the previous **78 centres, was 118**.
- The **number of items** directly retained in the index basket has **increased to 463 items** as **against 392 items in the 2001 series.**

- The sample size was increased from **41,040 families to 48,384**, and the number of selected markets for **collecting retail price** data from **289 to 317.**
- The **weight to food and beverage** was reduced from **46.2% to 39%,** while spending on housing increased from **15.2% to 17%.**
- The **Labour and Employment Minister** said the Bureau was also expected to bring out the new series of the **CPI for agricultural workers**, which currently has the base year of 1986-87.
- The **index for October** will be **released on November 27.**

The rationale behind the move

- The new base year would better **reflect the changing consumption pattern**.
- It would be giving more **weightage to spending on health**, **education, recreation,** and other **miscellaneous expenses** while reducing the **weight of food and beverages.**
- The **weight of food and beverages** has declined **over time** whereas the **weight of miscellaneous groups** has increased substantially under the **2016 series** vis-à-vis earlier series.

Importance of CPI-IW

- The CPI-IW is used as a **benchmark for calculating dearness allowance** for **government employees**, dearness relief for pensioners and wages for industrial workers in some sectors.

Topic- GS Paper III– Economics
Source- The Hindu

International Financial Services Centers Authority (IFSCA)

Why in the new?

- The **International Financial Services Centres Authority (IFSCA)** prescribed the **regulatory framework for Real Estate Investment Trusts (REITs)** and **Infrastructure Investment Trusts (InvITs)** in **IFSC**.

More in the news

- IFSCA has **permitted global participants** i.e. **REITs and InvITs incorporated in FATF** compliant jurisdictions to list on the **stock exchanges in GIFT IFSC.**
- Additionally, **InvITs** have been permitted to raise **funds through private placements** also.

- The REITs and InvITs registered in **International Financial Services Centre (IFSC)** have been permitted to invest in real estate assets and infrastructure projects respectively in **IFSC, India** and other foreign jurisdictions.
- The listing of REITs and InvITs in IFSC shall be in accordance with the requirements of the **stock exchanges in IFSC**.

About International Financial Services Centres Authority

- It has been established on **April 27, 2020** with **head office in Gandhinagar**.

Objective

- To develop the **financial products and services** in the **Gujarat International Finance Tec-City International Financial Services Centre (GIFT IFSC).**

Functions

- The authority will **regulate financial products** such as securities, deposits or contracts of insurance, financial services, and financial institutions which have been previously approved by **any appropriate regulator** such as **Reserve Bank of India (RBI)**, the **Securities and Exchange Board of India (SEBI)** etc., in an IFSC.
- It will also regulate any other **financial products**, financial services, or financial institutions in an IFSC, which may be notified by the central government.
- It may also recommend to the **central government** any other **financial products, financial services, or financial institutions**, which may be permitted in an IFSC.

Topic- GS Paper III– Economics
Source- The Hindu

South Asian Flash Flood Guidance System (FFGS)
Why in the news?

- Recently **Ministry of Earth Sciences** dedicated **Flash Flood Guidance services,** first of its **kind for South Asian countries** namely **India, Bangladesh, Bhutan, Nepal,** and **Sri Lanka.**

About South Asian Flash Flood Guidance System (FFGS)

- It has been developed by **India Meteorological Department.**
- The **India's National Disaster Management Authority** and the **Central Water Commission** have also **partnered** in this system.

- It is **aimed at helping disaster management** teams and **governments make timely evacuation plans** of the **actual event of flooding**.
- The **FFGS centre** will be **established in New Delhi**, where weather **modelling and analysis of rainfall data observations** from **member countries** will be done.
- Under it, an **automated mode of dissemination** is to be established with the **stakeholders** along with the **use of social media**, so that the **information reaches** to concerned **disaster authorities** in a **timely manner.**
- The **Guidance for flash floods** in the **form of Threats (6 hours in advance)** and **Risks (24 hours in advance)** will be provided by **Regional Centre to National Meteorological & Hydrological Services, National and State Disaster Management Authorities** for **taking mitigation measures** to **reduce the loss of life and property** in the **South Asian Region countries.**
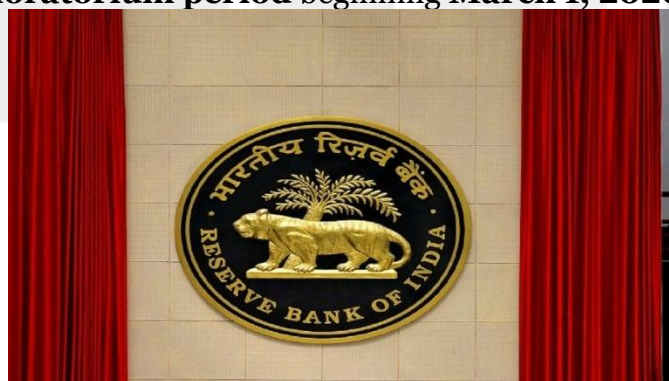
Topic- GS Paper III– Disaster Management
Source- The Hindu

Waiver of interest on interest scheme
Why in the news?

- Recently the **Reserve Bank** has asked **all lending institutions to credit** the **interest waiver on loans upto two crore rupees** for the **six months moratorium period** beginning **March 1, 2020**.

About the Waiver of interest on interest scheme

- The **government announced the scheme** for **grant of ex-gratia payment** of **difference between compound interest** and **simple interest for six months** to **borrowers in specified loan accounts**.
- Under the scheme, the **lending institutions** have been **mandated to grant ex-gratia payment** to **certain categories of borrowers** through **crediting the difference between simple interest and compound interest** for the period between **March 1- August 31, 2020.**
- The government has asked **banks to credit the amount to borrowers** by **5th of November 2020.**
- As per the scheme, the **lending institutions shall credit the difference** between compound interest and simple interest with regard to the eligible borrowers in **respective accounts for the said period** irrespective of whether the borrower availed the **moratorium on repayment of loan or not.**

- **Post payment**, **lenders** can claim the amount from the **central government**.

What are covers under the Scheme?

- The scheme will **cover education**, **housing, automobile loans**, **MSME loans**, personal loans to professionals, credit card dues, consumer durable loans and consumption loans.

Topic- GS Paper III–Economics
Source-AIR

Natural gas to come under GST

Why in the news?

- Recently **Global energy majors** are **bullish on the growth of natural gas usage in India** and have called on the **government to bring natural gas under the GST regime** at the **India energy Forum** being held this week.

Current Scenario

- Currently petrol, diesel, aviation turbine fuel, natural gas and crude oil fall outside **India's Goods and Services Tax (GST) regime**.
- Government officials have also **indicated that the government** is considering **bringing natural gas** under the **ambit of the GST regime.**

Why is it important to bring natural gas under the GST regime?

- The **bringing natural gas** under the **GST would lead to a reduction** in the **cascading impact of taxes on industries** such as power and steel, which used natural gas as an input.
- The **inclusion of natural gas** under the **GST regime** would do away with the **central excise duty** and **different value added taxes** imposed by states.
- This would lead to an **increase in the adoption of natural gas** in line with the **government's stated goal to increase** the **share of natural gas** in the **country's energy basket** from **6.3% to 15%.**

Topic- GS Paper III–Economics
Source-Indian Express

The Patents (Amendment) Rules, 2020
Why in the news?
- The **central government** has recently **amended patent rules to streamline the submission** requirements regarding the **working of a patented invention** on a commercial scale in **India**, **a move aimed at promoting ease of doing business**.

Salient Features
- The **Patents (Amendment) Rules, 2020**, which came into **effect on October 19, 2020**, has further **streamlined the requirements** related to **filing of Form 27** and **submission of verified English translation of priority documents**, which is not in **English language**.
- The rules were amended following a **Delhi High Court order** on the **matter in April 2018.**
- **As per the new rules**, a **patentee gets flexibility** to file a **single Form-27** in respect of **single or multiple related patents**.
- Where a **patent is granted** to two or more persons, such **persons may file a joint Form-27.**
- Moreover, **patentees** would now be required to provide **'approximate revenue/value accrues'** while authorised agents would be able to submit **Form-27 on behalf of patentees.**

Time extension
- The **time available** to **patentees for filing Form-27** has also been **extended to six months**, against the **current three months**, from the **expiry of the financial year.**
- Patentees will **not be required to file Form-27** in respect of a **part or fraction of the financial year.**

Priority documents
- There are also **important changes with reference to Rule 21** on filing of priority documents. If the **priority document is available in WIPO's** (World Intellectual Property Organization) **digital library, the applicant** would not be required to submit the same in the **Indian Patent Office**.

Topic- GS Paper III–Economics
Source-The Hindu Business Line

National Program and Project Management Policy Framework
Why in the news?
- **NITI Aayog and Quality Council of India (QCI)** have **recently launched the 'National Program and Project Management Policy**

Framework' (NPMPF), with the **aim of bringing radical reforms** in the way **infrastructure projects** are **executed in India.**

About National Program and Project Management Policy Framework

- It is **developed by NITI Aayog** and the **Quality Council of India** which **proposed a four-level certification system** for project managers linked to project scale.
- It is **envisaged to bring radical reforms** in the way **infrastructure projects are executed in India.**
- **NPMPF** will help in **realizing the Prime Minister's vision** of an **Aatmanirbhar Bharat** by **building a stronger India**, in which we would need **good quality infrastructure**.
- This **framework aims to formulate radical reforms** in the way large and **mega infrastructure projects** are **managed in India**, with an action plan to:
  1. Adopt a program and project management approach to infra development
  2. Institutionalize and promote the profession of program and project management and build a workforce of such professionals,
  3. Enhance institutional capacity and capability of professionals

Related Information

About Quality Council of India

- Quality Council of India (QCI) was **set up in 1997** by **Government of India** jointly with **Indian Industry** as an **autonomous body attached** to the **Department of Industrial Policy & Promotion, Ministry of Commerce, and Industry.**

Chairman

- The **Chairman of QCI** is **appointed by the Prime Minister** on **recommendation of the industry** to the **government**.
- Its mandate is to establish and operate the **National Accreditation Structure (NAS)** for **conformity assessment bodies** and providing **accreditation in the field of health, education, and quality promotion**.
- **National Accreditation Board for Certification Bodies (NABCB)** and **National Accreditation Board for Testing and Calibration Laboratories (NABL)** are the **two accreditation boards of the QCI.**
- These **two bodies work** closely to support the **Government and regulators to ensure** that the **data provided by accredited conformity assessment bodies** is **robust, reliable, and trustworthy** in terms of **decision making, compliance testing** and **standards setting**.

- Indian industry is represented in **QCI by three premier industry associations** namely:
    a. Associated Chambers of Commerce and Industry of India (ASSOCHAM)
    b. Confederation of Indian Industry (CII)
    c. Federation of Indian Chambers of Commerce & Industry (FICCI)

Topic- GS Paper III–Infrastructure
Source-Indian Express

Science and technology

BrahMos missile with indigenous booster successfully test-fired

Why in the news?

- **India** has recently **successfully test-fired BrahMos supersonic cruise missile** having features **indigenous Booster and Airframe Section** along with many other **'Made in India' sub-systems**.
- The test firing of the **missile was carried out** by the **Defence Research and Development Organisation, DRDO** from **Balasore in Odisha.**
- **BrahMos Land-Attack Cruise Missile** was cruising at a **top speed of Mach 2.8.**
- It is one more **major step in enhancing** the **indigenous content**.

About BrahMos

- The **BrahMos** has been **developed as a joint venture** between the **Defence Research and Development Organisation (DRDO)** of India and the **Federal State Unitary Enterprise PO Mashinostroyenia (NPOM)** of **Russia** as **BrahMos Aerospace** via an **inter-government agreement**.
- BrahMos is named on the **rivers Brahmaputra and Moskva**.
- It is a **two-stage** (solid propellant engine in the first stage and liquid ramjet in second) **air to surface missile** with a **flight range of around 300 km**.
- However, **India's entry into the Missile Technology Control Regime (MTCR)** has extended the range of the **BrahMos** missile to **reach 450 km-600km**, a shade above its **current MTCR capped range of 300 km**.
- BrahMos is the **heaviest weapon** to be **deployed on Su-30 MKI fighter aircraft,** with a **weight of 2.5 tonnes**.
- **BrahMos** is a **multiplatform** i.e it can be launched from **land, air, and sea** and **multi capability missile** with pinpoint accuracy that works in both day and **night irrespective** of the **weather conditions.**
- It operates on the **"Fire and Forgets"** principle i.e it does not require **further guidance after launch.**
- BrahMos is one of the fastest cruise missiles currently **operationally deployed with speed of Mach 2.8**, which is **3 times more than the speed of sound**.
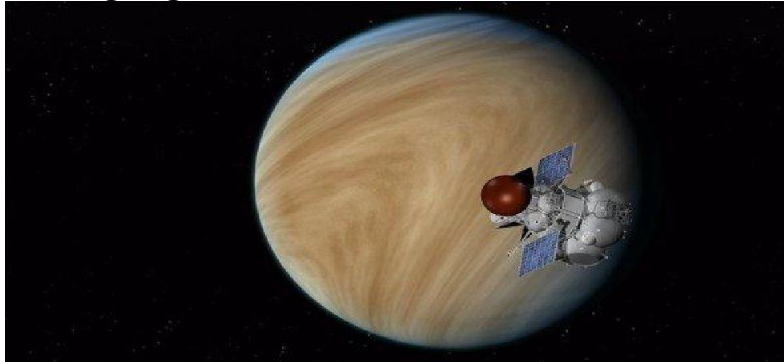
Topic- GS Paper III–Science and Technology
Source-The Hindu

ISRO to launch its Venus mission in 2025

Why in the news?

- The **French Space Agency CNES** announced recently that it going to participate in **ISRO's Venus Mission** which has been named **SHUKRAYAAN.**
- The mission is going to be **launched in 2025**.

About Shukrayaan-1

- The **Shukrayaan-1 mission** will confirm the **presence of active volcanoes on Venus.**
- Shukrayaan-1 is a proposed mission of **Indian Space Research Organization (ISRO).**
- The mission will be **launched in 2023.**

Aim of the mission

- To study the **surface** and **atmosphere of Venus**.

Related Information

- **ISRO** have also selected **The VIRAL (Venus Infrared Atmospheric Gases Linker)** instrument that has been **co-developed with the Russian federal space agency Roscosmos** and the **LATMOS atmospheres**, environments and space observations laboratory attached to the **French national scientific research centre CNRS.**

AKATSUKI mission

- **Japan's Akatsuki** which is also known as the **Venus Climate Orbiter and Planet-C** is currently **moving around Venus**.
- It has been tasked to study the **atmosphere of Venus**.
- **AKATSUKI** is the **Japanese Venus Climate Orbiter** that was designed to **investigate the climate system of Venus.**
- The **orbiter was launched on May 21, 2010**, and it reached **Venus on December 7, 2010.**
- Thrust was applied by the orbital maneuver engine to put AKATSUKI into a **westward equatorial orbit** around **Venus with a 30-h orbital period.**

Topic- GS Paper III–Science and Technology

Source-Indian Express

Responsible AI for Social Empowerment (RAISE) 2020

Why in the news?

- **Ministry of Electronics and Information Technology (MeitY)** and **NITI Aayog** are organizing a **Global Virtual Summit on Artificial**

Intelligence (AI), RAISE 2020- 'Responsible AI for Social Empowerment 2020,' from **October 5-9, 2020.**

About RAISE 2020
- **RAISE 2020** is a **first of its-kind,** global meeting of minds on **Artificial Intelligence** to **drive India's vision for social transformation** through **responsible Artificial Intelligence**.
- It will be a **global meeting of minds to exchange ideas** and chart a **course for using AI for social transformation**, inclusion, and empowerment in areas like Healthcare, Agriculture, Education and Smart Mobility, among other sectors.
- The event will **witness robust participation from global industry leaders**, key opinion makers, **Government representatives and academia**.
- **Industry analysts** predict that **Artificial Intelligence** could add up to **USD 957 billion to India's economy by 2035.**

Topic- GS Paper III–Science and Technology
Source-The Hindu

BreathPrint biomarker
Why in the news?
- Scientists have **recently found a method for early diagnosis of bacteria** that **causes peptic ulcer**, with the help of a **biomarker called 'BreathPrint' found in the breath.**
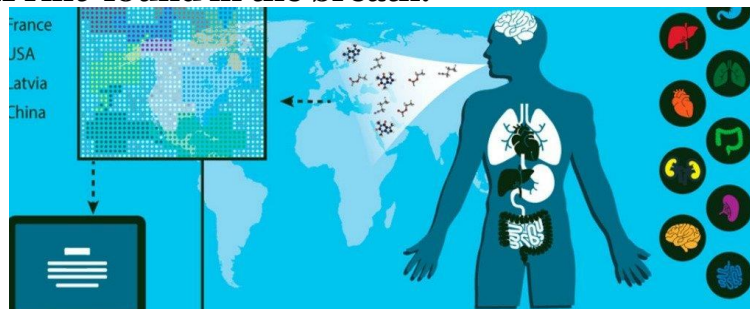
About 'BreathPrint' biomarker
- The **new biomarker 'BreathPrint'** has been found for **diagnosis of 'Helicobacter pylori'** in **semi-heavy water in human exhaled breath**.
- The **biomarker** will be **used for early diagnosis of bacteria** that causes **peptic ulcer.**

- *Helicobacter pylori* is usually diagnosed by the **traditional and invasive painful endoscopy and biopsy tests** which are not suitable for early diagnosis and follow up.
- The team has already **developed a patented 'Pyro-Breath' device** for **diagnosis of various gastric disorders** and *Helicobacter pylori infection*.

Consumption of drinking water   Stomach   Exhaled Breath
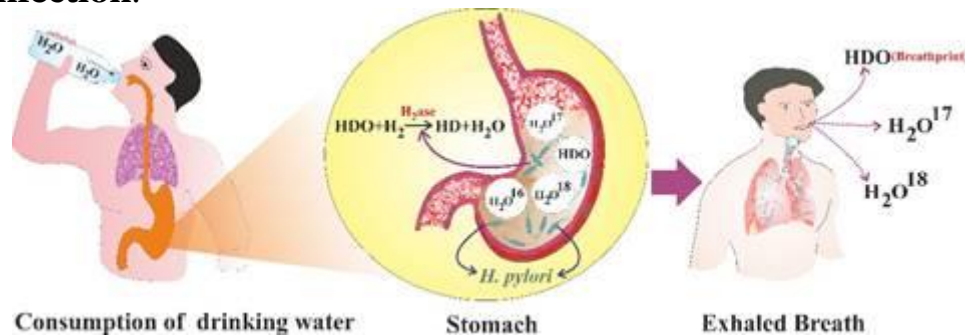
About Helicobacter pylori
- It is a **common type of bacteria** that grows in the **digestive tract** and tends to **attack the stomach lining**.
- *H. pylori* infections are usually **harmless**, but they are responsible for the **majority of ulcers in the stomach** and **small intestine**.
- The term **"Helico" means spiral**, which **indicates that the bacteria** are **spiral shaped.**

Helicobacter pylori are adapted to live in **the harsh, acidic environment of the stomach.**
- The **spiral shape of *H. pylori*** allows them to **penetrate the stomach lining**, where they are **protected by mucus** and the **human body's immune cells** are not **able to reach them.**

Note:
- **'Breathomics'** is the **study of different water molecular species** in **human breath i.e. exploring different water isotopes** in **human exhaled breath.**

Topic- GS Paper III–Science and Technology
Source-PIB

Three black hole researchers get Nobel Prize for Physics 2020
Why in the news?
- Recently **Roger Penrose of Britain**, **Reinhard Genzel of Germany** and **Andrea Ghez of the U.S**. won the **Nobel Physics Prize** for their research into what the Nobel committee called "one of the most exotic phenomena in the universe, **the black hole".**
- **Penrose** was honoured for showing **"that the general theory of relativity leads to the formation of black holes",** while **Genzel and Ghez** were jointly awarded for discovering **"that an invisible and extremely heavy object governs the orbits of stars at the centre of our galaxy".**
- **Ghez** is just the **fourth woman to receive the physics prize since 1901** when the **first Nobel prizes** were handed out.

Making a mark: (From left) Reinhard Genzel, Andrea Ghez and Roger Penrose were awarded the Nobel Prize for Physics on Tuesday. •AP & AFP

- The **first woman to win the prize** was **Marie Curie in 1903**, who was also the **first person to receive two Nobel prizes** when she **won the 1911 chemistry prize.**
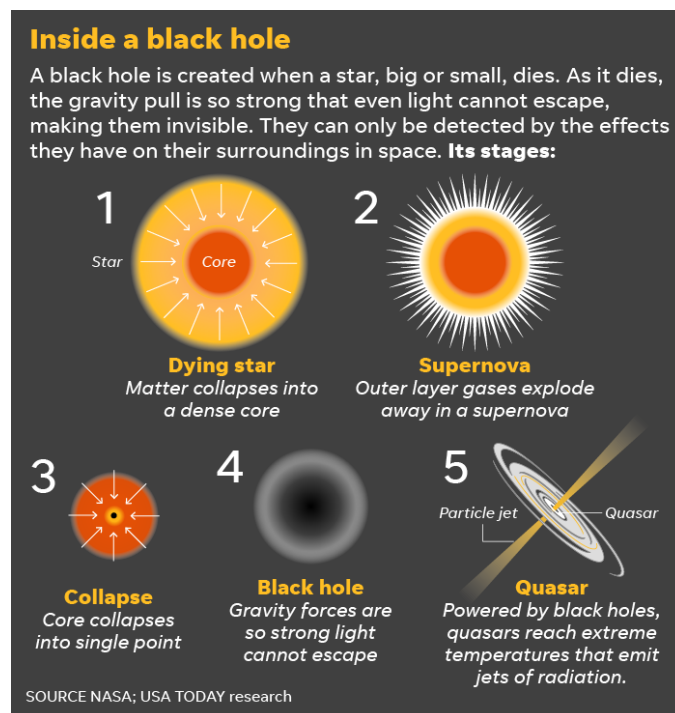
Related Information

About Black Hole

- It refers to a **point in space** where the **matter is so compressed** as to create a **gravity field from which even light cannot escape**.
- The concept was **theorized by Albert Einstein in 1915** and the term **'black hole'** was coined in the **mid- 1960s by American physicist John Archibald Wheeler.**
- Previously the black holes observed so far belong to two categories but later on another black hole was discovered which is known as **Intermediate mass black hole.**

The other two are

a. Steller black hole
b. Supermassive black holes

Inside a black hole

A black hole is created when a star, big or small, dies. As it dies, the gravity pull is so strong that even light cannot escape, making them invisible. They can only be detected by the effects they have on their surroundings in space. **Its stages:**

1 Star — Core
Dying star
Matter collapses into a dense core

2
Supernova
Outer layer gases explode away in a supernova

3
Collapse
Core collapses into single point

4
Black hole
Gravity forces are so strong light cannot escape

5 Particle jet — Quasar
Quasar
Powered by black holes, quasars reach extreme temperatures that emit jets of radiation.

SOURCE NASA; USA TODAY research

About Stellar black hole
- It has forms when a **massive star undergoes** an **explosive death called a supernova.**
- This explosion, which can **outshine an entire galaxy of stars** for about a week, leaves behind the **small, heavy core of a star.**
- If this core is **massive enough**, it will **collapse on itself** and form a **black hole**. (Our Sun is much too small, or insufficiently massive, to form a black hole when it finally runs out of fuel.)
- A **typical stellar class of black hole** has a mass between **about 3 and 10 solar masses.**

About Supermassive black holes
- It exists in the **center of most galaxies**, including our **own Milky Way Galaxy**.
- They are **astonishingly heavy**, with **masses ranging from millions to billions of solar masses.**
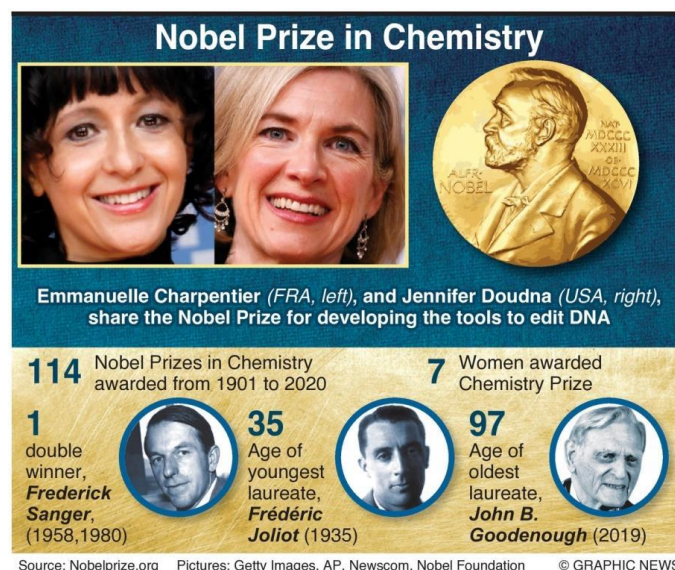
About Intermediate mass black hole
- The **intermediate mass black hole** is estimated to have a **mass between 100 and 1000 solar masses.**
- No single **star could ever** form such a **heavy black hole.**
- In **April 2019**, the scientists at the **Event Horizon Telescope Project** released the **first-ever image of a Black Hole** (more precisely, of its shadow).

Topic- GS Paper III–Science and Technology
Source-the Hindu

Makers of gene 'scissors' win Chemistry Nobel Prize of 2020
Why in the news?
- **Emmanuelle Charpentier of France** and **Jennifer Doudna** of the **U.S.** have recently won the **Nobel Chemistry** for **developing the gene-editing technique** known as the **CRISPR-Cas9 DNA snipping "scissors".**
- It is for the first time a **Nobel science prize** has gone to a **women-only team**.

Nobel Prize in Chemistry

Emmanuelle Charpentier *(FRA, left)*, and Jennifer Doudna *(USA, right)*, share the Nobel Prize for developing the tools to edit DNA

114 Nobel Prizes in Chemistry awarded from 1901 to 2020   **7** Women awarded Chemistry Prize

1 double winner, *Frederick Sanger*, (1958,1980)

35 Age of youngest laureate, *Frédéric Joliot* (1935)

97 Age of oldest laureate, *John B. Goodenough* (2019)

Source: Nobelprize.org   Pictures: Getty Images, AP, Newscom, Nobel Foundation   © GRAPHIC NEWS

About CRISPR-Cas9 DNA

The CRISPR-Cas9 system consists of **two molecules** that make an **edit in the DNA**.

a. Cas9

- It is an **enzyme which functions** as a pair of **'molecular scissors.**
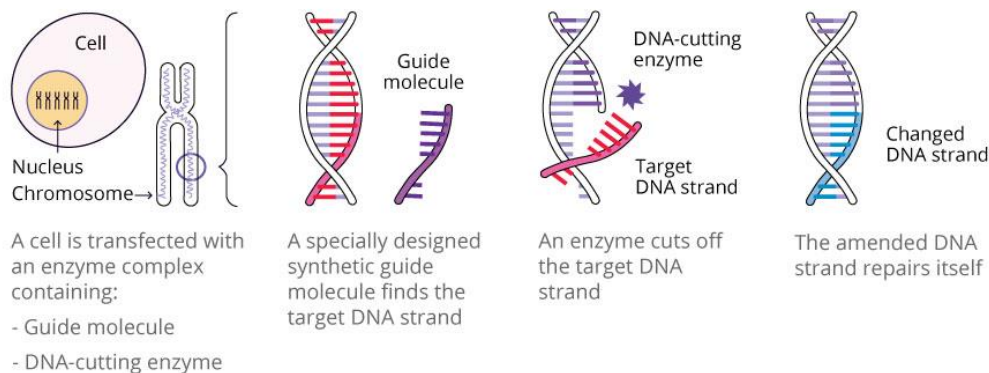- It can **cut the two strands** (sense and anti-sense) of **DNA at a specific location in the genome.**

b. guide RNA (gRNA)

- It is a **short (20 bases or so) piece** of **pre-designed RNA sequence** located within a **longer RNA scaffold.**
- The **gRNA guides the Cas9** to the planned part of the **genome ensuring the right place is cut.**
- The gRNA has bases which are **complementary to the target sequence** in the **DNA like a very specific lego piece.**
- This in **theory ensures that the gRNA binds** only to the **desired sequence** and not **somewhere off-target.**
- The **Cas9 scissor enzyme** is guided to the **desired location and snips across** both strands of the DNA.

Gene Editing

A DNA editing technique, called CRISPR/Cas9, works like a biological version of a word-processing programme's "find and replace" function

A cell is transfected with an enzyme complex containing:
- Guide molecule
- DNA-cutting enzyme

A specially designed synthetic guide molecule finds the target DNA strand

An enzyme cuts off the target DNA strand

The amended DNA strand repairs itself

Sources: Reuters; Nature; Massachusetts Institute of Technology

- **Francisco Mojica** faculty of the **University of Alicante** was the first person to report the **CRIPR locus in 1993.**
- Earlier **Japanese researcher Yoshizumi Ishino** had described part of it in **1987 but it was Mojica** who was able to **completely study the sequence** and their function.

Significance
- Using these, **researchers can change the DNA** of **animals, plants and microorganisms** with **extremely high precision.**
- This **technology** has had a **revolutionary impact on the life sciences**, is **contributing to new cancer therapies** and also for **curing inherited diseases.**
- In **2018 in China**, scientist He **Jiankui caused an international scandal** when he used **CRISPR to create** what he called the **first gene-edited humans.**

Topic- GS Paper III—Science and technology
Source-The Hindu

Television Rating Points (TRPs)
Why in the news?
- **Mumbai police** is recently **looking into a scam** about **manipulation of TRPs (Television Rating Points)** by rigging the devices used by the **Broadcast Audience Research Council (BARC) India**, which has the **mandate to measure television audience in India.**

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

Methodology:
- This **could be for an hour**, a **day, or even a week**.
- India follows the **international standard of one minute.**
- The **data is usually made public every week.**
- For **calculating TRP, BARC** has installed "**BAR-O-meters" in over 45,000 empaneled households.**
- These households are classified into **12 categories under the New Consumer Classification System**

About Broadcast Audience Research Council
- It is an **industry body jointly owned by advertisers**, ad agencies, and broadcasting companies, represented by **The Indian Society of Advertisers**, the **Indian Broadcasting Foundation,** and the **Advertising Agencies Association of India.**
- Though it was created in **2010, the I&B Ministry** notified the **Policy Guidelines for Television Rating Agencies in India in 2014** and registered **BARC in July 2015** under these **guidelines, to carry out television ratings in India.**

Topic- GS Paper III—Science and Technology, Source- The Hindu

INOX Oxygen Plant inaugurated in Uttar Pradesh
Why in the news?
- **Uttar Pradesh Chief Minister** has been **inaugurated a new cryogenic oxygen plant** that has been **commissioned by INOX Air Products (INOX AP).**
- This is the **biggest plant** in the state and will help to **supply oxygens in hospitals.**

About INOX Oxygen Plant
- This is the **ultra-high purity air separation plant**.
- It has a **capacity of 150 tonnes per days** (TPD).
- The plant will produce **liquid oxygen, liquid nitrogen, and liquid argon**.

Significance
- This facility would help the **state to fight the coronavirus better.**
- The plant will **complete the demand and need of medical oxygen**. It will also boost the **state's industrial growth** by **supplying the industrial gases.**
- This plant also **signifies state's commitment** to **bring in investment.**

Topic- GS Paper III–Science and Technology
Source- AIR

National Super Computing Mission
Why in the news?
- **National Institute of Technology, Tiruchirappalli** has recently signed **a MoU with Centre for Development of Advanced Computing (C-DAC), Pune** for installing a **state of the art super computer** in the process of becoming part of the **National Super Computing Mission of the Government of India**.

About National Super Computing Mission

- A **total of 10 Centrally Funded Institutions** have been inducted into **National Super Computing Mission (NSM)** including **IISc, Bangalore and seven IITs** in addition to **NIT, Trichy.**
- The objective of the **NSM is to empower technology institutions** with high-**performance computing capabilities** that can be **used for solving socially relevant**, **computationally intensive problems**.
- It supports the **government's vision of 'Digital India'** and **'Make in India' initiatives.**
- The mission is being **implemented by the Department of Science and Technology (Ministry of Science and Technology)** and **Ministry of Electronics and Information Technology (MeitY),** through the **Centre for Development of Advanced Computing (C-DAC), Pune** and **Indian Institute of Science (IISc), Bengaluru.**
- **Under NSM**, the **long-term plan** is to **build a strong base of 20,000 skilled persons** over the **next five years** who will be **equipped to handle the complexities of supercomputers.**

Topic- GS Paper III– Science and technology
Source- The Hindu

MACS-6478
Why in the news?

- Recently a **new wheat variety MACS-6478** was developed by **Scientists from Agharkar Research Institute**, an **autonomous institute** of the **Department of Science and Technology.**

About MACS-6478

- The farmers of the **village in Koregaon tehsil of Satara district** in **Maharashtra** are now **getting a yield of 45 to 60 quintal per hectare** with the new variety as against earlier **average yield ranging 25 to 30 quintal per hectare.**

- The **newly developed common wheat or bread wheat**, also called **high yielding Aestivum**, matures in **110 days** and is **resistant to most races of leaf and stem rust.**
- It helps in the **doubling of the farmer income of Maharashtra.**

Topic- GS Paper III–Science and Technology
Source- The Hindu

New Shephard: A rocket system built by Blue Origin
Why in the news?

- Recently, a **rocket system called 'New Shephard'** completed its **seventh test launch** after it **took off from a test facility in Texas**.

About New Shephard

- It is named after **Mercury astronaut Alan Shepard**, the **first American** to go to space.
- It is a **reusable sub-orbital rocket system** designed to **take astronauts and research payloads** past the **Kármán line.**
- The **rocket system consists of two parts**, the cabin or capsule and the **rocket or the booster.**
- The **idea of New Shepard** is to provide **easier and more cost-effective access** to space meant for **purposes such as academic research**, **corporate technology development** and **entrepreneurial ventures.**

Note:

- **Kármán line** is the **internationally recognized boundary of space.**

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

Frontier Technologies Cloud Innovation Centre
Why in the news?

- To **address societal challenges** through **digital innovation, NITI Aayog** announced the **establishment of a Frontier Technologies Cloud Innovation Centre, CIC** with **Amazon Web Services, AWS.**
- **It is the first of its kind in India.**

About Cloud Innovation Centre (CIC)

- This **CIC is part** of the **AWS CIC Global Programme** which **provides an opportunity for government agencies, non-profits and educational institutions,** to come together on pressing challenges, apply design thinking, test new ideas, and **access the technology expertise of AWS.**

- The **NITI Aayog Frontier Technologies CIC** will be a **great enabler to budding innovators** and **start-ups** and **help in piloting state-of-the-art, cloud-centric digital innovations** by **leveraging emerging technologies** such as **AI, IOT and robotics, blockchain.**

- **Cloud Innovation Centres Programme** is designed to be a **catalyst for innovation in public sector,** by **bringing together technology experts to address challenges.**
- It is also **aligned to the Prime Minister's vision** of an **Atmanirbhar Bharat,** as well that of **NITI Aayog and Atal Innovation Mission**.

Topic- GS Paper III– Science and Technology
Source- PIB

'CUReD' Website on Repurposed Drugs for Covid-19
Why in the news?

- Recently, the **Union Minister of Health & Family Welfare** has launched the **'CUReD' Website** on **Repurposed Drugs for Covid-19.**

About CUReD Website on Repurposed Drugs for Covid-19

- The CuRED or CSIR Ushered Repurposed Drugs, the website provides information about the drugs, diagnostics and devices including the current stage of the trials, partnering institutions and their role in the trials and other details.
- The five clinical trials involved are Withania somnifera, Tinospora cordifolia plus Piper longum (in combination), Glycyrrhiza glabra, Tinospora cordifolia and Adhatoda vasica (individually and in combination) and AYUSH-64 formulation formulation is undergoing safety and efficacy trials.

Related Information
About Drug Repurposing

- It is also known as **drug repositioning,** is a drug development strategy predicated on the reuse of existing licensed drugs for new medical indications.

- It involves the **investigation of existing drugs** for **new therapeutic purposes.**

Topic- GS Paper III–Science and Technology
Source- PIB

Aditi Urja Sanch
Why in the news?
- The **Union Minister of Science and Technology and Earth Sciences** inaugurated the **DME fired "Aditi Urja Sanch" unit** along with the **DME-LPG** blended **fuel cylinders** and handed them **over to CSIR-NCL (National Chemical Laboratory)** canteen use on a **trial basis.**

About Dimethyl ether (DME)
- It is an **ultra-clean fuel.**
- **CSIR-NCL** has developed **nation's first kind of DME pilot plant** with **20-24Kg/day capacity.**
- The **conventional LPG burner** is not **suitable for DME combustion** as **DME density is different than LPG**.
- To address this issue, **CSIR- NCL's "ADITI URJA SANCH"** has come up with a **helpful, innovative setup**.
- The **new Burner** is **fully designed and fabricated** by **NCL for DME**, DME -LPG blended mixtures and LPG combustion.

Salient features of newly designed Burner are:
- The new design is **efficient for both DME** and the **blend of DME and LPG.**
- **Novel design** and **flexible air ingress**.
- The **new nozzle design** allows **optimum oxygen ingress** for combustion.
- The angles at which **nozzles are placed maximize** the **heat transfer area across the utensils.**
- **Optimum flame velocity** can be obtained.
- The **length of the flame** (high, low, and medium) can be **adjusted by altering the oxygen ingress.**
- The **experiment shows** that it increases the **heat transfer rate as well**.

Topic- GS Paper III– Environment/Sci-Tech
Source- PIB

Tubarial salivary glands
Why in the news?

- Recently **Scientists in the Netherlands** have discovered a potential new organ named as '**tubarial salivary glands**' in the **human throat** that they **stumbled upon** while carrying out **research on prostate cancer.**
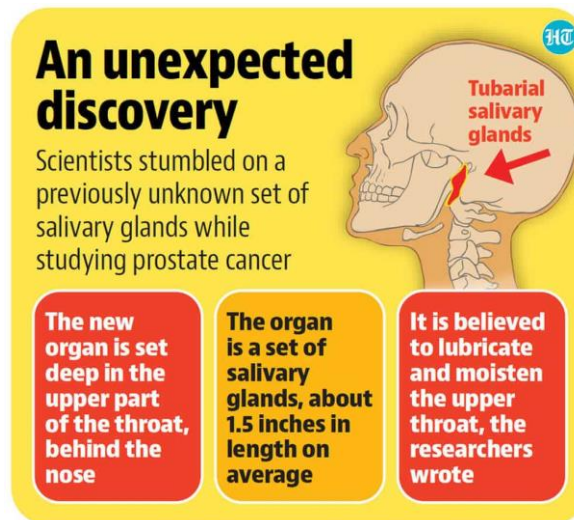

Image Courtesy: Hindustan Times

About Tubarial salivary glands

- **Tubarial salivary glands** have been discovered while scientists were studying prostate cancer cells using **PSMA PET-CT technology**.
- The discovery may be important for **cancer treatment.**
- So far, this **nasopharynx region** — behind the nose — was not thought to host anything but **microscopic, diffuse, salivary glands**.
- The newly discovered glands are about **1.5 inches (3.9 centimeters)** in length on average and are located over a **piece of cartilage** called the torus **tubarius, Livescience reported.**
- According to the researchers, the **glands probably lubricate** and **moisten the upper throat** behind the **nose and mouth.**
- Until now, there were **three known large salivary glands** in humans: one under the **tongue**, one under the **jaw** and one at the back of the jaw, behind the **cheek**.

Related Information
About PSMA PET-CT technology

- It is a **combination of CT scans** and positron **emission tomography (PET)** — which is **good in detecting salivary gland tissues**.
- In this technique, a **radioactive "tracer"** is injected into the patient that binds to the **protein PSMA**, which is **elevated in prostate cancer cells**.
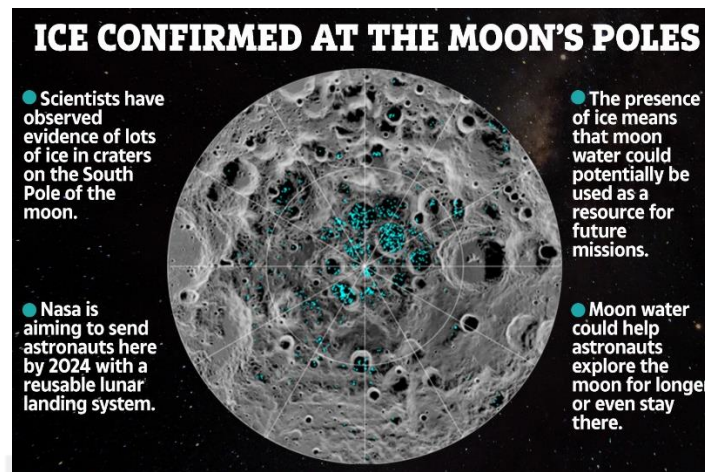
Topic- GS Paper III– Science and Technology
Source- The Hindu

Water on the Moon

Why in the news?

- Recently in **two separate studies** in **Nature Astronomy**, scientists have **reported findings** with **potentially huge implications** for sustaining humans on the **Moon in the future**.
- One study reports the **detection of water on the Moon's sunlit surface** for the **first time.**
- The other estimates that the **Moon's dark, shadowy regions**, which potentially **contain ice**, are **more widespread** than thought.

ICE CONFIRMED AT THE MOON'S POLES

- Scientists have observed evidence of lots of ice in craters on the South Pole of the moon.
- The presence of ice means that moon water could potentially be used as a resource for future missions.
- Nasa is aiming to send astronauts here by 2024 with a reusable lunar landing system.
- Moon water could help astronauts explore the moon for longer or even stay there.

- The **Moon** has water at places where **none had been detected before** and has **potentially more water** than previously believed in **regions where it was already understood to exist.**

Why is the discovery of water important?

- Apart from being a **marker of potential life**, water is a **precious resource in deep space.**
- For **astronauts landing on the Moon**, water is necessary not only to sustain life but also for **purposes such as generating rocket fuel.**
- **NASA's Artemis programme** plans to send the **first woman** and the **next man to the Moon in 2024** and hopes to establish a **"sustainable human presence"** there by the **end of the decade.**
- If space explorers can use the **Moon's resources**, it means they **need to carry less water from Earth.**

Previous Studies

- Previous Moon studies, including by the **Indian Space Research Organization's (ISRO) Chandrayaan-1 mission**, have provided evidence for the **existence of water**.
- In 2009, the **Moon Mineralogy Mapper (M3) instrument** aboard **Chandrayaan-1 found water molecules** in the **polar regions**.
- A paper in **Nature Geoscience** in **August 2013 analyzed M3 data** to report the **detection of magmatic water (water originating from the deep interiors)** on the **Moon's surface.**

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

ISRO to launch earth observation satellite EOS-01 on November 7

Why in the news?

- **India would launch** its **latest earth observation satellite EOS-01** and **nine international customer spacecraft** onboard its **Polar rocket PSLV-C49** from the spaceport of **Sriharikota in Andhra Pradesh.**
- This is the **first launch by the Indian Space Research Organization (ISRO)** since the COVID-19 induced lockdown came into force in March.

About EOS-01

- EOS-01 is **intended for applications in agriculture**, **forestry, and disaster management support.**
- **This will be the 51st mission of ISRO's workhorse Polar Satellite Launch Vehicle.**

Related Information

About PSLV

- **India's Polar Satellite Launch Vehicle (PSLV)** is the **third generation launch vehicle.**
- PSLV is the **first launch vehicle** which is **equipped with liquid stages.**
- PSLV's first successful launch in **October 1994.**
- PSLV was used two of the **most important missions**.
    a. Chandrayaan-1 in 2008
    b. Mars Orbiter Spacecraft in 2013

List of Earth Observation Satellites

	Launch Date	Launch Mass	Launch Vehicle	Orbit Type	Application
RISAT-2BR1	Dec 11, 2019	628 Kg	PSLV-C48/RISAT-2BR1	LEO	Disaster Management System, Earth Observation
Cartosat-3	Nov 27, 2019		PSLV-C47 / Cartosat-3 Mission	SSPO	Earth Observation
RISAT-2B	May 22, 2019	615 Kg	PSLV-C46 Mission	LEO	Disaster Management System, Earth Observation
HysIS	Nov 29, 2018		PSLV-C43 / HysIS Mission	SSPO	Earth Observation
Cartosat-2 Series Satellite	Jan 12, 2018	710 Kg	PSLV-C40/Cartosat-2 Series Satellite Mission	SSPO	Earth Observation
Cartosat-2 Series Satellite	Jun 23, 2017	712 kg	PSLV-C38 / Cartosat-2 Series Satellite	SSPO	Earth Observation
Cartosat -2 Series Satellite	Feb 15, 2017	714 kg	PSLV-C37 / Cartosat -2 Series Satellite	SSPO	Earth Observation
RESOURCESAT-2A	Dec 07, 2016	1235 kg	PSLV-C36 / RESOURCESAT-2A	SSPO	Earth Observation
SCATSAT-1	Sep 26, 2016	371 kg	PSLV-C35 / SCATSAT-1	SSPO	Climate & Environment
INSAT-3DR	Sep 08, 2016	2211 kg	GSLV-F05 / INSAT-3DR	GSO	Climate & Environment, Disaster Management System

Topic- GS Paper III–Science and Technology, Source-The Hindu

Environment

Aenigmachannidae: Rare fish family discovered in paddy fields of Kerala
Why in the news?
- **Researchers** from the **Indian Institute of Science, Education and Research (IISER), Pune** has recently **discovered a rare fish family** named **Aenigmachannidae in paddy fields of Kerala**.

About the Aenigmachannidae fish
- The **fish** has a **long and elongated body.**
- It is believed that this **fish has lineage going back to Gondwanaland** and has survived even after the **parting away of the Asian and African continents** began some **120 million years ago.**

Living Fossil
- The detailed analysis of the specimen led the **scientific team to trace primitive characteristics,** thereby concluding that the fish is a '**living fossil'.**
- The fish, with a **long and elongated body**, was sighted only post sunset along the **paddy fields of Mallapuram district** in **north Kerala** last year.

Topic- GS Paper III–Environment
Source-Indian Express

Decarbonization and Energy Transition Agenda
Why in the news?
- **NITI Aayog and Embassy** of the **Netherlands** has recently sign Statement of Intent (SOI) on '**Decarbonization and Energy Transition Agenda'.**

Key Highlights
- The **focus of the partnership** is on **co-creating innovative technological solutions** by leveraging the **expertise of the two entities.**

The key elements of the SoI include:
a. Lowering the net carbon footprint in industrial and transport sectors
b. Realise the target potential of natural gas and promote bioenergy technologies
c. Adopt clean air technologies from monitoring to reducing actual particulates
d. Adopt next-generation technologies, such as hydrogen, carbon capture utilization, and storage for sectoral energy efficiency; and
e. Financial frameworks to deliver and adopt climate change finance.

This will help to achieve the **UN Sustainable Development Goals.**

Significance of Netherlands for India
- It is **India's sixth largest European Union trading partner**—as much as **20% of India's exports to the European continent** goes through the **Netherlands,** making it **India's 'gateway to Europe**.
- It is also one of the **top five investors** and the **third largest source of Foreign Direct Investment for India.**

Topic- GS Paper III–Environment
Source-Indian Express

Branded Royal

Why in the news?
- Recently, the Branded Royal, which had not been spotted in the **Nilgiris for over 130 years**, was documented along the **Kotagiri slopes**.

About Branded Royal
- The **Branded Royal** is a rare butterfly of **lycaenid species**.
- The scientific name of the **Branded Royal** is **Tajuria melastigma**.
- It was last recorded in the **Nilgiris in 1888** by **G.F. Hampson** and there is only one **other record in Tamil Nadu**.

Distribution
- It is found in the **Indo-Malayan realm i.e. in India, Assam, Burma and Thailand**.
- The **Branded Royal** is **very rarely seen in India**, with only four or five records in existence i.e. in the **Nilgiris, Dindigul** and two in **Kerala and Karnataka.**

Conservation Status
- It is protected under **Schedule II** of the **Wildlife (Protection) Act, 1972.**

Topic- GS Paper III–Environment
Source-The Hindu

India PV EDGE 2020
Why in the news?
- Recently, the **Ministry of New and Renewable Energy** is going to organize the **'India PV EDGE 2020'.**

About India PV EDGE 2020
- It is a **global symposium** which is going to be **organised by NITI Aayog**, **Ministry of New and Renewable Energy** and **Invest India.**
- It is aimed at **catalyzing the cutting-edge Photovoltaics (PV) manufacturing** in India.
- The **global symposium** to also include **'Investors Conclave' on Photovoltaics Manufacturing.**

The cutting-edge giga-scale solar manufacturing stands on three pillars:
a. disruptive PV chemistries,
b. manufacturing by custom-engineered advanced production equipment, and
c. utilisation of innovative BOM components like special glasses and coatings.

State participated in the enclave
- **Tamil Nadu**, **Maharashtra** and **Andhra Pradesh** states will participate in the conclave.

Note:
- **India's NDC document** of the **Paris Agreement in 2015** called for extraordinary vision, leadership, compassion, and wisdom to combat climate change.
- India PV EDGE 2020 is one small step towards that ambition.

India's INDC, to be achieved primarily, by 2030
- To **reduce the emissions intensity** of the **GDP by about a third.**
- A **total of 40% of the installed capacity** for electricity will be from **non-fossil fuel sources.**
- **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.**

Topic- GS Paper III–Environment
Source- Economic Times

Suchindram Theroor Bird Sanctuary

Why in the news?

- Recently, the **Suchindram Theroor Bird Sanctuary** has **come under threat with real estate sharks** in the **process of converting** some **wetlands into housing plots.**

Suchindram Theroor Birds Sanctuary

- The **Suchindram Theroor Birds Sanctuary** is a protected area comprising the **Suchindram Kulam wetlands** and **the Theroor Kulam wetlands**.
- The **Birds Sanctuary** is near **Suchindram town** in **Kanyakumari District, Tamil Nadu, India.**
- It is located between **Nagercoil and Kanyakumari** on the **National Highway No. 47.**
- The **Sanctuary area underlies** the southernmost **continental range of the Central Asian Flyway.**
- It is an **important Bird and Biodiversity Area (IBA)** of India.

Topic- GS Paper III–Environment
Source-The Hindu

Strobilanthes Kunthiana

Why in the news?

- Recently, the **experts have warned** that the **iconic flora native to the Nilgiris**, including more than **30 species of Strobilanthes**, could be under **threat of being displaced** with the continuing **advance of invasive flo**ra such as **Cestrum aurantiacum and Lantana camara.**

About Strobilanthes Kunthiana
- It is a **shrub which is found in the shola forests** of the **Western Ghats in South India.**
- The **mass blooming purple blue in colour** of **Strobilanthes kunthiana**, known commonly as the **neelakurinji, gave the Nilgiris** (the Blue Mountains) its iconic name.
- These **plants blossom after 12 years** exhibiting the **gregarious flowering habit.**
- **Neelakurinji plant** was first seen in the **vicinity of Kunthi River** and hence its scientific name.
- The **Kurinjimala Sanctuary** was made in **Munnar exclusively to protect the Neelakurinji plants.**
- The **habitat of the Strobilanthes plants** in the **upper Nilgiris** is being **eroded** by the *Cestrum aurantiacum* and they are also **threatened by other invasive species** like **Lantana camara in the lower slopes.**

Topic- GS Paper III–Environment
Source-The Hindu

Stockholm Convention
Why in the news?
- The **Union Cabinet** has approved the **ratification of seven chemicals** listed under **Stockholm Convention** on **Persistent Organic Pollutants (POPs).**
- The **Cabinet's approval** for **ratification of POPs demonstrates** India's commitment to meet its **international obligations** with regard to **protection of environment and human health.**

More about the news
- The **Ministry of Environment, Forest and Climate Change (MoEFCC)** had notified the '**Regulation of Persistent Organic Pollutants Rules**, on **March 5, 2018** under the provisions of **Environment (Protection) Act, 1986.**
- The **regulation inter alia** 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

- The **ratification process** would **enable India to access Global Environment Facility (GEF) financial resources** in updating the **National Implementation Plan (NIP).**
- The **Cabinet further delegated** its **powers to ratify chemicals** under the Stockholm Convention to **Union Ministers of External Affairs and Environment** with regard to **POPs already regulated** under the **domestic regulations** thereby **streamlining the procedure.**

About Stockholm Convention

- 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** and have the **property of long-range environmental transport** .
- **Exposure to POPs** can lead to cancer, damage to central and peripheral nervous systems, diseases of immune system, reproductive disorders and interference with normal infant and child development.
- **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**.

Topic- GS Paper III–Environment
Source-Business Standard

Fishing cat to be the ambassador of Chilika Lake
Why in the news?

- The **Chilika Development Authority (CDA)** designated the **fishing cat as ambassador of Chilika Lake**, the **largest brackish water lagoon in Asia** and **India's oldest Ramsar Site.**

About Chilika Lake

- It is the **Asia's largest** and **world's second largest lagoon**.
- It spreads over **Puri, Khurda and Ganjam districts of Odisha** on the east coast of India, at the mouth of the **Daya River.**
- It is separated from the **Bay of Bengal by a small strip of sand.**
- It is the **largest wintering ground** for **migratory birds** on the **Indian subcontinent**.

Ramsar Site

- In **1981**, it was **designated the first Indian wetland of international importance** under the Ramsar Convention.

- **Satapada**, a **Sea Mouth Island where Chilika Lake** meets the Bay of Bengal, is home to the **Irrawaddy dolphins.**
- **Nalbana Bird Sanctuary** or **Nalbana Island** is the core area of the **Chilika Lake**.

About Fishing Cat
- The **fishing cat is the only wild cat species in India** that is a wetland specialist, and it is **found all around Chilika.**
- In India, fishing cats are **mainly found in the mangrove forests** of the **Sundarbans,** on the **foothills of the Himalayas** along the **Ganga and Brahmaputra** river valleys and in the **Western Ghats.**

Protection Status
- It is listed as **Endangered** as per **IUCN Red List.**
- It is listed in **Appendix II of CITES.**
- **Indian Wildlife Protection Act, 1972**: Schedule I

Conservation Efforts
- Recently the **Odisha Government** has started a **two-year conservation project for Fishing Cats** in **Bhitarkanika National Park.**
- The Fishing Cat Project **launched in 2010** started raising awareness about the **Cat in West Bengal.**
- In 2012, the **West Bengal government** officially declared the **Fishing Cat as the State Animal** and the **Calcutta Zoo** has two big enclosures dedicated to them.
- In **Odisha, many NGOs and wildlife conservation Societies** are involved in **Fishing Cat research and conservation work.**

Topic- GS Paper III– Environment
Source- The Hindu

Xanthomonas oryzae
Why in the news?
- Recently, the **researchers at the Centre for Plant Molecular Biology (CPMB) Hyderabad** are working to **identify and develop few molecules** which are derived from either the **Xoo bacterium** or from the **infected rice cell walls.**
- The team is **developing new disease control strategies** which they can use as **vaccines that activate the rice immune system** and provide **resistance to rice** plants from **subsequent infections by pathogens**.

About Xanthomonas Oryzae
- It is commonly known as **Xoo infection** which causes **huge yield losses to rice** cultivation throughout the world.
- The **treatment of rice with cellulase**, a cell wall degrading enzyme secreted by **Xoo induces rice immune responses** and **protects** rice from **subsequent infections by Xoo.**
- *Xanthomonas oryzae* is a **bacterial pathovar** which causes a **serious blight of rice, other grasses and sedges.**
- The bacterial blight of rice has **high epidemic potential** and is **destructive to high-yielding cultivars** in both **temperate and tropical regions.**

About Center for Plant Molecular Biology
- It is located in **Osmania University, Hyderabad.**
- It is one of the **7 Centers of Excellence** created in the country with **initial financial assistance** from the **Department of Biotechnology, Government of India.**
- Currently it is **one of the leading Centers** of the country in **Plant Molecular Biology.**

Mission
- Application of tools in understanding molecular mechanisms for **genetic enhancement of crop plants.**
- **Development of human resource** in the frontier areas of **Molecular Biology and Biotechnology.**
- Establishment of **industry linkage for product/process development.**

Topic- GS Paper III– Environment
Source- PIB

Cannabis plant
Why in the news?
- Recently **Narcotics Control Bureau's investigation** has started an **'inquiry' aimed at "uprooting the drug citadel in Bollywood",** is a plant that goes by **many names: cannabis, hemp, marijuana or pot.**
- As potent as **various parts of its anatomy** may be, not all of them **amount to criminality** under the **Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985.**

What is the 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 like THC** — obtained by **solvent extraction of the crude plant** material or of 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 **major 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**.

Related Information
- In **2018,** the **Parliament of Canada has passed Cannabis Act (or Bill C-45),** a landmark law that **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 legalise the **drug's recreational use** and the second to have a **nationwide, legal marijuana market**, after **Uruguay (permitted in December 2013).**

Topic- GS Paper III– Environment
Source- The Hindu

India's eight beaches get 'Blue Flag' certification
Why in the news?
- Recently **eight beaches in India,** across **five states and two union territories**, have been **awarded the prestigious 'Blue Flag' certification.**

Background
- On **International Coastal Clean-Up Day**, for the **first time eight** beaches of India are recommended for the coveted **International eco-label**, the **Blue flag certification.**

Criteria

- "In order to qualify for the Blue Flag, a series of stringent environmental, educational, safety, and accessibility criteria (about 33 of them) must be met and maintained," mentions the official website.
- The **certification was awarded to India** by an **international jury** comprising the **United Nations Environment Programme (UNEP), Union for Conservation of Nature (IUCN), UN World Tourism Organization (UNWTO),** and **Foundation for Environmental Education (FEE).**

The eight beaches included are:
- Shivrajpur in Gujarat
- Ghoghla in Daman & Diu
- Kasarkod and Padubidri beach in Karnataka
- Kappad in Kerala
- Rushikonda in Andhra Pradesh
- Golden beach of Odisha
- Radhanagar beach in Andaman and Nicobar.

- The **Blue Flag beaches** are considered the **cleanest beaches of the world.**
- The **Chandrabhaga beach** on the **Konark coast of Odisha** is the first in India to get the Blue Flag certification.

About Blue Flag Certification
- This Certification is **accorded by an international agency** "Foundation for Environment Education, **headquartered in Copenhagen, Denmark".**
- The certification has been based on **33 stringent criteria** in **four major heads** i.e.
  a. **Environmental Education and Information,**
  b. **Bathing Water Quality,**
  c. **Environment Management and Conservation and**
  d. **Safety and Services in the beaches.**
- It started in **France in 1985** and has been implemented in **Europe since 1987** and in **areas outside Europe since 2001**, when **South Africa joined**.
- **Japan and South Korea** are the only countries in **South and southeastern Asia** to have **Blue Flag beaches.**
- **Spain tops** the list with **566 such beaches**; **Greece and France** follow with **515 and 395, respectively.**

Related Information

BEAMS" (Beach Environment & Aesthetics Management Services)
- **India** recently **launched its own eco-label "BEAMS"** (Beach Environment & Aesthetics Management Services) under its **Integrated Coastal Zone Management (ICZM) project.**
- This is one of the **several other projects of ICZM** that the **central government is undertaking** for the **sustainable development of coastal regions**, striving for **globally recognized** and the **coveted eco-label Blue flag.**

About BEAMS
- It was launched by **e-hoisting the flag**, carrying a message **"IAMSAVINGMYBEACH"** simultaneously at **eight beaches**, recommended by the **Indian jury for consideration** for the **Blue Flag.**

Objectives
  i. bate pollution in coastal waters
  ii. promote sustainable development of beach facilities
  iii. protect & conserve coastal ecosystems & natural resources,
  iv. seriously challenge local authorities & stakeholders to strive and maintain high standards of cleanliness

About Integrated Coastal Zone Management Plan
- It is a **process for the management of the coast** using an **integrated approach,** regarding all aspects of the **coastal zone, including geographical and political boundaries**, to **achieve sustainability.**
- The **concept of ICZM** was born **in 1992 during the Earth Summit of Rio de Janeiro.**
- The **specifics regarding ICZM** is set out in the **proceedings of the summit within Agenda 21.**

Implementation
- It is a **World Bank** assisted **project and is being implemented** by the **Union Ministry of Environment, Forests and Climate Change.**
- **The National Centre for Sustainable Coastal Management (NCSCM), Chennai**, is providing **scientific and technical inputs**.

About the International Coastal Cleanup Day
- The day is **marked each year** on the **third Saturday of September** as an **initiative of the Washington-based Ocean Conservancy**, a volunteer effort for ocean health.
- **The first International Coastal Cleanup Day was observed in 1986.**
- In 2020, the day is being held on 19 September.
- **This year theme for International Coastal Cleanup Day 2020: "Achieving a trash-free Coastline".**
- The day aims to increase public awareness about the accumulation and negative impacts of litter in oceans, on coastlines and on beaches.

Topic- GS Paper III– Environment
Source- The Hindu

Furry Puss Caterpillars and Murder Hornets
Why in the news?
- Recently, the **health officials in Virginia, Washington** have warned the State from **Murder Hornets and Furry Puss Caterpillars**.

About Furry Puss Caterpillars
- The **furry puss caterpillar**, named after the **far less vicious house cat**, is essentially a **southern flannel moth in its larva stage.**
- According to experts, **after metamorphosis,** the **insect no longer poses a threat.**
- **Closely resembling a wig or toupée**, the **caterpillar is widely regarded** as one of the **most poisonous of its kind in the United States**.

Habitat

- The **caterpillars**, which **subsist solely on oak and elm leaves**, are commonly found in **parks and near structures** in southern states like **Texas and Missouri.**

About Murder Hornets

- It is the **world's largest wasps**, also known as the **Asian giant hornets.**
- It is **native to temperate and tropical East Asia, South Asia, Mainland Southeast Asia,** and **parts of the Russian Far East.**
- It is **infamous for ruthlessly ripping apart** honeybees and decimating their hives.
- However, they also **pose a threat to human beings.**
- Their **potent stingers deliver venom** that has **killed hundreds of people across the world.**
- According to **National Geographic, 42 people in a single Chinese province** were killed in **2013 following a surge in the population** of the murder hornet.

Topic- GS Paper III–Environment
Source- Indian Express

India Energy Modelling Forum

Why in the news?

- Recently the **India Energy Modelling Forum (IEMF)** is **jointly launched by NITI Aayog** and **United States Agency for International Development (USAID)** under the **US–India Strategic Energy Partnership**.

About India Energy Modelling Forum

- India Energy Modelling Forum **aims to engage Indian researchers,** knowledge partners, **think tanks and national and international government** agencies and **departments for modelling and long-term energy planning.**

The governing structure of IEMF will consist of an

a. inter-ministerial
b. steering committee

About inter-ministerial committee

- This **committee will review the studies/modelling** activities and provide **directions and new areas of research.**

Energy Storage Policies & Initiatives
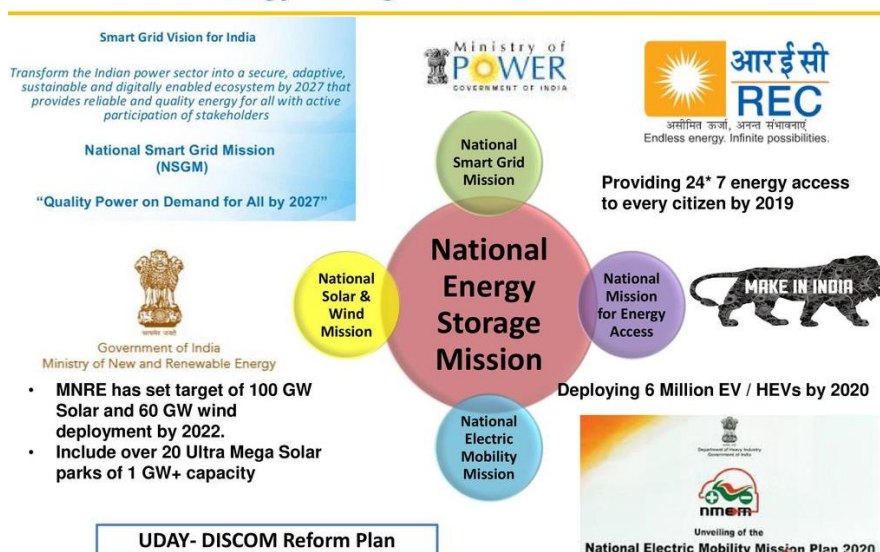
About steering committee
- This committee will **shortlist policy issues** to be **taken up for study and might form** various **taskforces depending on the specific studies**/modelling exercises to be carried out.
- The convener of this committee will be selected on a rotational basis for two years and will act as the interface between the inter-ministerial and steering committees and the working groups/taskforces.
- **Prayas Group, Pune,** will be the first convener of the steering committee.

About the India Energy Modeling Forum
- It is jointly launched by **NITI Aayog and United States Agency for International Development (USAID)** under the US–India Strategic Energy Partnership.

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

Aim
- **India Energy Modelling Forum** will accelerate this effort and aim to provide a **platform to examine important energy and environmental** related issues and inform **decision-making process** to the **Indian government**.
- It also **aims to improve cooperation** between modelling teams, government, and knowledge partners, funders; and facilitate exchange of ideas, ensure production of high-quality studies.
- The forum will also **identify knowledge gaps** at **different levels and across different areas**; and **build capacity of Indian institutions**.

Related Information

About Energy Modelling Forum (EMF)
- The Energy Modelling Forum (EMF) in **USA was established in 1976** at **Stanford University to connect** leading modelling experts and decision

makers from government, industry, universities, and other research organizations.

- The **forum provides an unbiased platform** to **discuss the contemporary issues revolving** around **energy and environment.**

Topic- GS Paper III– Environment
Source- The Hindu + outlook

SILAM and ENFUSER: Air Quality Forecast Models
Why in the news?

- **Ministry of Earth Sciences** is constantly striving to **improve Air Quality Early Warning System** by incorporating various changes in Air Quality Forecast Models, such as **System for Integrated modelling of Atmospheric composition (SILAM) and** ENvironmental **information FUsion SERvice (ENFUSER).**
- The **change in these Air Quality Forecast Models** will help **in** such as improved emission inventories, Land Use and Land Cover and improved assimilation of various observational data.
- **SILAM and ENFUSER have been developed in technical collaboration with Finnish Meteorological Institute (FMI).**
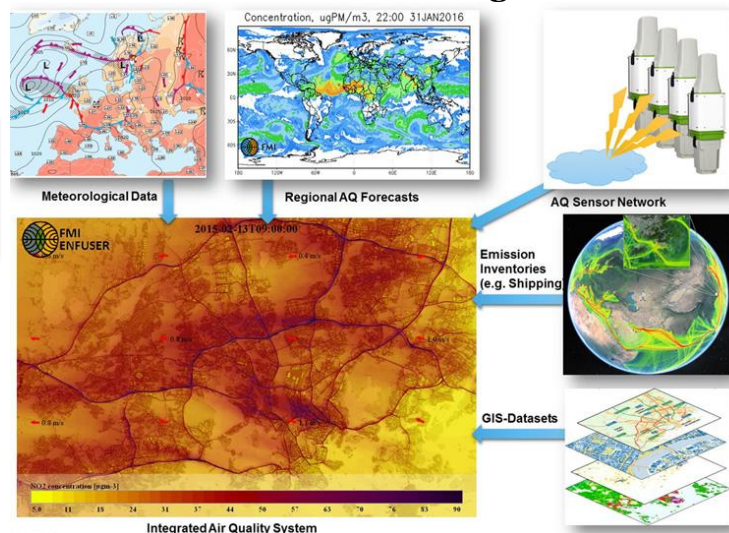
About System for Integrated modelling of Atmospheric composition

- The Air Quality forecast model **System for Integrated modelling of Atmospheric composition (SILAM) for India** has been further improved by **implementing global emission inventories CAMS-GLOB v2.1** supplemented with **EDGAR v4.3.2 for coarse** and **mineral-fine anthropogenic particulate matter** at **10km resolution.**

ENvironmental information FUsion SERvice (ENFUSER)

- It is a very high-resolution city scale model **ENFUSER (ENvironmental information FUsion SERvice) for Delhi** also has been **operationalized to identify the air pollution hotspots** and pollution upto street level.
- The **speciality of the ENFUSER** is the high **utilization of measurement data** such as air quality observations, a detailed description of the road network, buildings, land-use information, high resolution satellite images, ground elevation and population data.

- The ENFUSER natively **taps into the operative IMD's regional SILAM access point.**
- The ENFUSER results are being **evaluated with the satellite measurements and observations**, model is **found to capture the hotspots over Delhi** very well.

Note:
- Air Quality forecast model **WRF-Chem** has also **been updated with high-resolution land use-land cover information** to improve the **air quality forecast.**

Topic- GS Paper III– Environment
Source- PIB

Buldhana Pattern of Water Conservation
Why in the news?
- Recently Maharashtra's **'Buldhana Pattern'** of water conservation' has won national recognition and the NITI Aayog is in the process of formulating National Policy on water conversation based on it.

About Buldhana Pattern of Water Conservation
- It is based on the synchronization of national highway construction and water conservation.
- It was achieved for the **first time in Buldana district of drought prone Vidarbha region,** by using soil from the **water bodies, nallas and rivers.**
- This consequently leads to the increase in capacity of water storage across the **waterbodies in Buldana district** and it came to be known as **'Buldana Pattern'.**
- The **creation of State Water Grid** and **adopting water Conservations** works **under this pattern** will increase the **agriculture production** and bring prosperity in farmer's economic **life in Vidarbha.**

Benefits
- "With this activity in **Maharashtra, 225 lakh cubic metre of soil** was used in **National Highway construction and the resultant widening / deepening** resulted in an **increase of 22,500 Thousand Cubic Metre (TMC)** of water storage capacity with **no cost to state government.**
- This is beneficial especially in the regions which are facing the problem of water scarcity.

Topic- GS Paper III–Environment
Source- Indian Express

Asian King Vultures
Why in the news?
- Recently, the **sighting of a pair of Asian king vultures** and a **juvenile in the Sigur plateau** is a **cause for optimism** that the **species may be re-establishing itself in the region.**

About Asian King Vultures
- It is also known as the **Red-headed Vulture**, **Indian black vulture, or Pondicherry vulture.**
- It is an **Old-World vulture** mainly found in the **Indian subcontinent**, with **small disjunct populations** in **some parts of Southeast Asia.**

Conservation Status
- It is listed as **'Critically Endangered'** under the **IUCN Red List of Threatened Species.**
- It is not a **migrant bird** but a **resident species** in the **Indian subcontinent except Sri Lanka.**

Conservation Efforts in India:
- **Vulture Care Centre (VCC)** has been set up at **Pinjore, Haryana in 2001**.
- The **Jatayu Conservation Breeding Centre** in **Pinjore is the world's largest facility** within the **state's Bir Shikargah Wildlife Sanctuary** for the breeding and **conservation of Indian vulture species**.
- It is a joint project managed by the **Haryana government** and the **Bombay Natural History Society (BNHS).**
- At present, there are **nine Vulture Conservation and Breeding Centres (VCBC) in India**, of which **three are directly administered** by the **Bombay Natural History Society (BNHS).**
- The **main objective of the VCBCs** was to **look after the vultures** and **breed them in captivity** and **release them into the wild.**
- **India's conservation efforts** are focused on the **three species of vultures which are Critically Endangered – White-backed Vulture, Slender-billed Vulture, and Long-billed Vulture.**

Topic- GS Paper III– Environment
Source- The Hindu

Seven new species of diatoms discovered from Western Ghats

Why in the news?

- Recently **seven new species of sub-aerial diatoms (*Luticola peguana*)**, a **kind of algae**, have been **discovered from some areas of Western Ghats** by **city-based scientists** from the **Agharkar Research Institute (ARI).**
- This is the **first time** in **two centuries** that a **discovery of *Luticola peguana***, found during the **1800s in Bengal,** has been **found in the Western Ghats.**

About Diatoms

- These are **single-celled algae** which generate nearly **25 per cent of global oxygen.**

Distribution

- Diatoms are a **widespread group** and can be **found in the oceans**, in fresh water, in soils, and on damp surfaces.
- They are one of the **dominant components of phytoplankton** in **nutrient-rich coastal waters** and during **oceanic spring blooms**, since they can **divide more rapidly** than other **groups of phytoplankton.**

Characteristics

- They are the only **organism on the planet** with **cell walls composed of transparent, opaline silica.**

- Diatoms have **light-absorbing molecules** (**chlorophylls a and c)** that collect energy from the **sun and turn it into chemical energy** through photosynthesis.

Diatoms produce long-chain fatty acids.

- **Diatoms** are an **important source of energy rich molecules** that are food for the **entire food web**, from zooplankton to aquatic insects to fish to whales.

Important for Environment

- **Diatoms** produce **50% of the air we breathe.**
- The diatoms **remove carbon dioxide (CO2)** from the atmosphere through **carbon fixation**.
- The CO2 is converted to organic carbon in the form of **sugar, and oxygen (O2)** is released.
- Diatoms are **particular about the quality of water** in which they live.
- For example, **species have distinct ranges of pH** and **salinity** where they will grow.
- Diatoms also have **ranges and tolerances** for other **environmental variables**, including nutrient concentration, suspended sediment, flow regime, elevation, and for different types of human disturbance.
- As a result, **diatoms are vital for assessment** and **monitoring biotic condition of waters.**

Note:

- The study of diatoms is a branch of **phycology.**

Topic- GS Paper III– Environment
Source- Indian Express

Nilgiris Elephant Corridor

Why in the news?

- The **Supreme Court** has recently **upheld a 2011** order of the **Madras High Court (HC) on the Nilgiris elephant corridor**, affirming the right of passage of the **animals and the closure of resorts in the area.**

Related Information

- The **Madras HC** had, in **July 2011**, declared that the **Tamil Nadu government** was fully empowered under the **'Project Elephant' of the Union government** as well as **Article 51 A (g) of the Constitution** to notify the elephant corridor in the **state's Nilgiris district**.

- The elephant corridor is **situated in the Masinagudi area** near the **Mudumalai National Park** in the Nilgris district.

About project Elephant

- **Project Elephant (PE)** was launched by the Government of India 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**.
- Welfare of captive elephants

What are Elephant Corridors?

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

'ECOSYSTEM COULD BE UNALTERABLY UPSET'

" The precautionary principle makes it mandatory for the state government to anticipate, prevent and attack causes of environmental degradation... it was necessary for it to limit commercial activity in areas falling in the corridor

forest cover, by facilitating travel between distinct forest habitats

In their absence, elephants would be unable to move freely, which would affect other species and the ecosystem balance of several wild habitats would be unalterably upset

The corridors allow elephants to continue their nomadic mode of survival, despite shrinking

— **SC bench** comprising CJI S A Bobde, Justices S Abdul Nazeer & Sanjiv Khanna

About Mudumalai National Park

- It is a **declared tiger reserve** that is in the **northeast of Nilgiri Mountain** or the **blue mountain.**
- It is in **Nilgiri district** and shares its **borders with Kerala and Karnataka**.
- The park is a **home to numerous endangered species** like **Bengal tiger**, long billed vulture, white-rumped vulture, Indian leopard, Indian elephant, and others.
- The **Western Ghats area** along with the **park is under consideration** for **recognition as a heritage site**, by **UNESCO.**
- It connects the **Western Ghats with the Eastern Ghats** and **it is a land with rich diversity.**
- The **northern part of the park** that comes **under the reign of Karnataka** is called as **Bandipur National Park.**

**Topic- GS Paper III– Environment**
Source- The Hindu

4th India Energy Forum
Why in the news?

- **Prime Minister Narendra Modi** has recently inaugurated the **4th India Energy Forum CERAWeek** through video conference.
- The theme of this edition is "**India's Energy Future in a world of Change**".

About the fourth India Energy Forum

- It is **organized by NITI Aayog** and **Ministry of Petroleum & Natural Gas**.
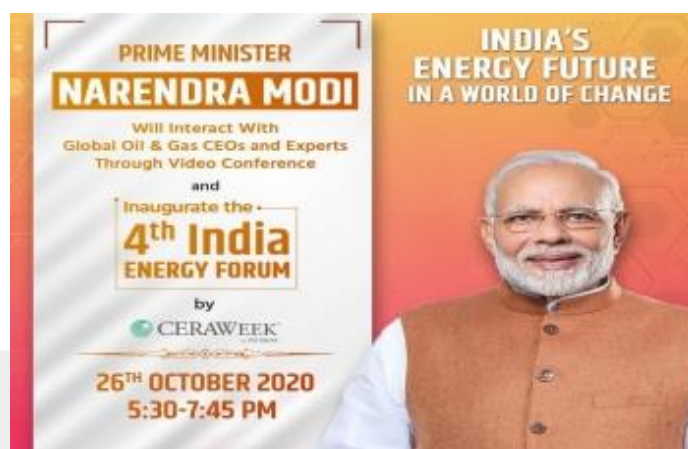
Objectives

- The **objective behind** the **meeting is to deliver a global platform** to understand **best practices, discuss reforms, and inform strategies** for **accelerating investments** into the **Indian Oil and Gas value chain**.
- The event will convene an **international group of speakers** and a community of over a **thousand delegates from India** and **over 30 countries**, including from **regional energy companies**, energy-related industries, institutions, and governments.

Related Information
India's energy map will have seven key drivers.

1. Accelerating our efforts to move towards a gas-based economy.
2. Cleaner use of fossil fuels particularly petroleum and coal
3. Greater reliance on domestic sources to drive biofuels.
4. Achieving the renewable target of 450 GW by 2030.
5. Increasing the contribution of electricity to de-carbonize mobility.
6. Moving into the emerging fuels including hydrogen
7. Digital innovation across all the energy systems.

About CERAWeek

- **CERAWeek** by **IHS Markit** has become the world's premier energy event.
- In **1983, Cambridge Energy Research Associates (CERA)** was founded in **Cambridge.**

- Each year, **CERA clients gathered** for a **few days in Houston, Texas** to attend the **executive conference** where they **gained insight into the energy future** while **connecting with their peers.**
- Over time, the **program was expanded to five days of informative sessions** and **networking opportunities**—and named **CERAWeek.**

Topic- GS Paper III–Environment
Source-The Hindu

Conservation centers in 5 states among host of ideas to protect vultures
Why in the news?

- The **National Board for Wildlife** has recently 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.**
  o **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.

- o **Rescue Centres:** Establishment of four rescue centres, in Pinjore (Haryana), Bhopal (Madhya Pradesh), Guwahati (Assam) and Hyderabad (Telangana).
- o There are currently no dedicated rescue centres for treating vultures.
- o 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.
- o **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.
- o This would be for getting a more accurate estimate of the size of vulture populations in the country.
- o **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)

- Eurasian griffon (Assam, winter visitor from Himalayas)

Single representative species
- 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	IUCN Status
White rumped vulture	Critically endangered
Slender billed vulture	Critically endangered
Long billed vulture	Critically endangered
Red headed vulture	Critically endangered
Egyptian vulture	Critically endangered
Egyptian vulture	Endangered
Himalayan Griffon	Near Threatened
Cinereous vulture	Near Threatened
Bearded vulture	Near Threatened
Griffon Vulture (Gyps fulvus)	Least Concern

Topic- GS Paper III—Environment
Source-PIB

EU environment ministers strike deal on climate law, leave out 2030 target

Why in the news?

- Recently **European Union (EU) Environment Ministers** have signed a deal that aims to make the **EU's 2050 net-zero emissions** target **legally binding** on the states.
- However, they left a **decision on a 2030 emissions-cutting target** for leaders to discuss **in December last year.**
- The **EU aims** to be **climate-neutral by 2050** – an economy with **net-zero greenhouse gas emissions.**

What does the deal provide?

- The deal will fix in law the **EU target** to **reach net zero emissions by 2050** and define the **rules for reviewing progress** towards climate targets.
- The law will give the **EU the legal possibility to act** when those who make promises do not deliver on the promises.

Related Information

- Recently **President Xi Jinping** announced that **China** would be **carbon net-zero by 2060**, and apparently **advanced the deadline for reaching peak emissions.**

Significance of China's Commitment:

- **China** is the **world's largest emitter of greenhouse gases**.
- It accounts for **almost 30% of global emissions**, more than the combined emissions in the **United States, the European Union** and **India**, the **three next biggest emitters.**
- China's commitment to a **net-zero targets** is a big breakthrough, especially since countries have been **reluctant to pledge themselves** to such **long-term commitments.**
- According to **Climate Action Tracker**, a **global group** that offers **scientific analysis on actions** being taken by countries, the **Chinese goal**, if realised, would **lower global warming projections** for **2100 by about 0.2° to 0.3°C,** the most **impactful single action ever** taken by any country.

Note:
Net zero emissions
- It refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere.

Zero Carbon law
- It was passed by New Zealand with the aim to tackle climate change by setting a net-zero targets for almost all greenhouse gas emissions by 2050**.**

Topic- GS Paper III–Environment
Source-India Express

Aenigmachanna gollum
Why in the news?
- Recently a **100 million-year-old fish** has been **discovered in Kerala** which is named after the **dark and conflicted character of JRR Tolkien's epic saga** movie **'Lord of the Rings'.**

About *Aenigmachanna Gollum*
- *'Aenigmachanna gollum'* belongs to an **old family of fish,** called **dragon snakeheads,** which retains its **primitive characteristics** after all these millennia.
- It looks like a **dragon, swims like an eel**, and has remained hidden for a **hundred million years.**
- Besides the **Gollum**, a sister species has also been **discovered called '*Aenigmachanna mahabali'.***
- The **discovery of a new family of fish** is very rare.
- The **dragon snakeheads** have evaded scientists till now because they live in **subterranean aquifers** and come to the **surface only after heavy flooding** from rain.
- The **closest relative** of the family **Aenigmachannidae is the Channidae**, of which at **least 50 species** can be found in the **streams and lakes of Asia** and **tropical Africa**.
- According to molecular analyses, the two families split from each other **34 million to 109 million years ago.**
- The family also has eyes and a **reddish-brown pigmentation**, which is unusual as **most subterranean fish** are pale and have no eyes.

Geological Importance

- This may indicate that **Aenigmachanna is a Gondwanan lineage**, which has **survived break-up of the supercontinent**, with **India separating from Africa** at around **120 million years ago.**

Topic- GS Paper III–Environment
Source-Indian Express

Echinops sahyadricus

Why in the news?

- Recently, a **student from Mumbai** is **reported to have discovered** a new species of *Echinops Sahyadricus* in collaboration with **researchers of Fabio Conti of the University of Camerino**, **Italy** and **Bombay Natural History Society (BNHS).**

About *Echinops sahyadricus*

- Its common name is **Sahyadri Globe Thistle.**
- The new species *Echinops sahyadricus* is discovered and described from the **Rajgad Fort** in the **Sahyadri Mountains.**
- It is **endemic to the Maharashtra state** and **probably restricted** to few **high mountain peaks** in **Western Maharashtra**.

Characteristic Features

- The **new species is unique** because of the **size of its composite inflorescence** which measures up to **9 cm in diameter** that is **relatively large compared to other Echinops species** found around the world.
- The **highest number of taxa (76)** is concentrated in the **Iranian plateau** and **five species are found in India** including **two in Maharashtra.**

Topic- GS Paper III–Environment
Source-The Hindu

Two New Ramsar Sites

Why in the news?

- **Kabartal Wetland (Bihar)** and **Asan Conservation Reserve (Uttarakhand**) have been designated as **Ramsar sites**, making them **'Wetlands of International Importance'.**
- Earlier in 2020, **India designated 10 more wetlands** as a **Ramsar site**, taking the total number **from 27 to 37**.
- With **2 more inclusions,** the **total number of Ramsar sites** in **India** is **39, the highest in South Asia.**
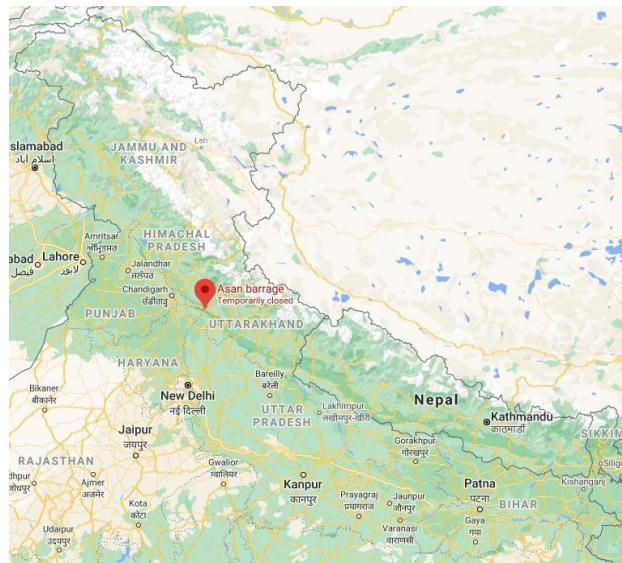
About Asan Conservation Reserve:

- It is a **444-hectare stretch of the Asan River** running down to its confluence with the **Yamuna River in Dehradun district of Uttarakhand.**
- It is **Uttarakhand's first Ramsar Site.**
- The **damming of the River** by the **Asan Barrage in 1967** resulted in **siltation above the dam wall**, which helped to create some of the **Site's bird-friendly habitats.**
- These **habitats support 330 species of birds** including the **critically endangered red-headed vulture** (*Sarcogyps calvus*), **white-rumped vulture** (*Gyps bengalensis*) and **Baer's pochard** *(Aythya baeri).*
- Other **non-avian species** present **include 49 fish species**, one of these being the **endangered Putitora mahseer** (*Tor putitora*).

About Kabartal Wetland

- It is also known as **Kanwar Jheel**, it **covers 2,620 hectares** of the **Indo-Gangetic plains** in the **Begusarai district of Bihar.**
- It acts as a **vital flood buffer for the region** besides **providing livelihood opportunities to local communities.**
- Significant biodiversity is present, with **165 plant species and 394 animal species recorded**, including **221 bird species**. It is also a v**aluable site for fish biodiversity** with over **50 species documented**.
- It is an **important stopover along the Central Asian Flyway**, with **58 migratory water birds** using it to **rest and refuel.**
- **Five critically endangered species** inhabit the site, including three vultures – the **red-headed vulture** *(Sarcogyps calvus),* **white-rumped vulture** *(Gyps bengalensis)* and **Indian vulture** *(Gyps indicus)* – and two waterbirds, the **sociable lapwing** *(Vanellus gregarius)* and **Baer's pochard** *(Aythya baeri)***.**
- Major threats to the Site include **water management activities** such as drainage, water abstraction, damming and canalization.

Related Information
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 **2nd 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 Organizational 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. Worldwide Fund for Nature (WWF)

Benefits of Joining Ramasar Convention
- Facilitates development at the national level of policies and actions for the wise use of wetlands.

- Presents an opportunity for a country to be heard in the principal forum on conservation and wise use of wetlands.
- Brings increased publicity and prestige for wetlands.
- Encourages international cooperation on wetlands and brings access to expert advice on national and site-related problems of wetland, conservation, and management.
- Provides access to financial aid through the Convention's Small Grant Fund.
- 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 and wardening**

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 as a result 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 1** 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-Indian Express

GREEN initiative
Why in the news?

- Recently, the **NTPC Ltd.** enters into **foreign currency loan agreement** with **Japanese Government's financial institution** for **JPY 50 billion** under **GREEN initiative**.
- This **loan is intended to provide NTPC** with the **necessary funds for solar power generation projects** and **installation of environmental equipment in India** as a **part of GREEN operations.**

About GREEN initiative

- It is an **initiative of Japan Bank for International Co-operation (JBIC).**

- Under this **support initiative**, called **GREEN (Global action for Reconciling Economic growth and ENvironmental preservation);** JBIC has financed projects aimed at preserving the global environment.

- It supports the **projects that significantly reduce greenhouse gas (GHG)** emissions—while considering **propagating advanced Japanese environmental technologies** around the world.
- It has also **providing various financial instruments** to support the **overseas deployment** of **Japan's advanced environmental technology.**
- **GREEN projects** include **development of photovoltaic generation facilities** using **advanced environmental technologies** and **highly energy-efficient power plants**, as well as **installation of energy-saving equipment** which are **intended to help protect the global environment**.

Topic- GS Paper III—Environment
Source-PIB

Centre sets up commission to tackle NCR pollution
Why in the news?

- The **Centre** has recently constituted a **"permanent" body — Commission for Air Quality Management in National Capital Region and Adjoining Areas** after dissolving the **22-year-old Environmental Pollution (Prevention and Control) Authority** that has so far addressed **air pollution in Delhi.**
- Encompassing **Delhi, Punjab, Rajasthan, Haryana** and **Uttar Pradesh**, the **all-powerful body** assumes several powers to **coordinate action among States**, levy fines - ranging **up to ₹1 crore or five years in prison** to address **air pollution**.

About the Commission

- The commission **awaits a formal perusal** by the **Supreme Court** before it can be **brought into effect.**

Members

- The panel will have at **least six permanent members** and will be **headed by a former or incumbent Secretary** to the **Central government**, or a **Chief Secretary to a State government.**
- It will have **members from Ministries** as well as **representatives from States**.

Where they get this power?

- The **Central Pollution Control Board** and its **State branches** have the powers to **implement provisions of the Environment (Protection) Act** for **air, water, and land pollution**.
- In case of **dispute or a clash of jurisdictions**, the commission's writ will prevail specific to **matters concerning air pollution.**

Rules enforcement

- The commission will be **empowered to constitute special investigative groups** for **stricter implementation**, but the letter of the **ordinance has no such details.**
- **EPCA** had almost similar powers but **failed miserably in cleaning the air** even after **being in force for more than 20 years**.

Related Information

Environment Pollution (Prevention and Control) Authority

- It was **constituted** with the **objective of protecting** and **improving the quality of the environment** and preventing and **controlling the environmental pollution** in the **National Capital Region**, under the provisions of the **Environment (Protection) Act, 1986.**
- The **EPCA** is also mandated to enforce **Graded Response Action Plan (GRAP)** in the city as per the **pollution levels**.
- The reason why **EPCA is an authority**, and not just an **advisory committee**, is because it has powers like those **enjoyed by the Centre.**

Powers

- The **EPCA has been empowered** to take **Suo motu action** as well as based on **complaints made by any individual**, representative **body or organization functioning** in the **environmental issues sector**.
- One of the **EPCA's important powers** is the **redressal of grievances through complaints.**

Reconstituted

- EPCA was **reconstituted with 20 members** after the expiry of its **last tenure in 2018.**
- Members include **DG of TERI**; **CEO of Centre for Energy, Environment and Water**; former **professor of surgery, AIIMS.**

Other major Measures Taken by Government to tackle Air Pollution

Graded Response Action Plan

- The **action plan** has approved by the **Supreme Court in 2016** and **notified in 2017 for Delhi** and the **National Capital Region (NCR).**

- The plan was **formulated after several meetings** were held by **Environment Pollution (Prevention and Control) Authority (EPCA)** with **state government representatives** and experts.
- **GRAP** includes the measures which will be taken by **different government agencies** to **prevent worsening of Air Quality of Delhi-NCR** and **prevent PM10 and PM2.5 levels** to go beyond the **'moderate' national Air Quality Index (AQI) category.**
- If air quality reaches the **'Severe+' stage,** the response under **GRAP includes extreme measures** such as **shutting down schools and implementing the odd-even road-space rationing scheme.**
- The plan **requires action and coordination** among **13 different agencies** in **Delhi, Uttar Pradesh, Haryana, and Rajasthan (NCR areas).**

Turbo Happy Seeder

- **Subsidies are provided** to the **farmers for buying Turbo Happy Seeder (THS)** which is a **machine mounted on a tractor** that cuts and **uproots the stubble**, to **reduce stubble burning.**

Introduction of BS-VI

- The **introduction of BS-VI vehicles** pushes for **electric vehicles (EVs), Odd-Even as an emergency measure** and **construction of the Eastern and Western Peripheral Expressways** to reduce vehicular pollution.

Graded Response Action Plan (GRAP) will come into effect in Delhi from Oct 15

EPCA has asked states to enforce 'moderate-to-poor' measures; the rest to be adopted as per situation

Development of the National Air Quality Index

- It **provides the information** under the aegis of the **Central Pollution Control Board (CPCB).**
- **Air Quality Index (AQI)** has been **developed for eight pollutants** viz. **PM2.5, PM10, Ammonia, Lead, nitrogen oxides, sulfur dioxide, ozone,** and **carbon monoxide**

Topic- GS III–Environment, Source-The Hindu

Green Delhi App
Why in the news?
- **Chief Minister of Delhi** has recently **launched an app** called **Green Delhi** which will **involve citizen participation** and **ensure timely action** in the government's **fight against pollution**.

About the Green Delhi App
- The **app enables citizens** to **register complaints**, report pollution sources and violations of anti-pollution norms.
- Citizens can take **photos, videos, and audio of local causes of pollution** such as **garbage burning, industrial pollution** and **construction dust** among others and upload on the app.
- **Green marshals** also deployed **"For the monitoring of the complaints."**

Coordination of different Department
- Around **21 departments**, including **civic bodies, DDA, DJB, Delhi Police, DSIDC, Delhi government departments** are attached to the **app and every department** has a **nodal officer** along with a **senior officer** who is in charge of all the **complaints registered related to the department**.

Specified Timeline
- The **resolution of all the complaints** as per the timeline, especially a specified **timeline of 48 hours.**
- If the **complaints are not resolved within 48 hours,** they will coordinate with the **senior officials of the departments** and **work to resolve the complaints.**

Topic- GS III–Environment
Source-The Hindu

Ethanol Blended Petrol Programme
Why in the news?
- The **Cabinet Committee on Economic Affairs** has approved of **fixing higher ethanol price** derived from **different sugarcane based raw**

materials under the **Ethanol Blended Petrol (EBP) Programme** for the forthcoming **sugar season 2020-21.**

About Ethanol Blended Petrol Programme

- It was **launched in January 2003** by the **Ministry of Petroleum & Natural Gas (MoP&NG).**
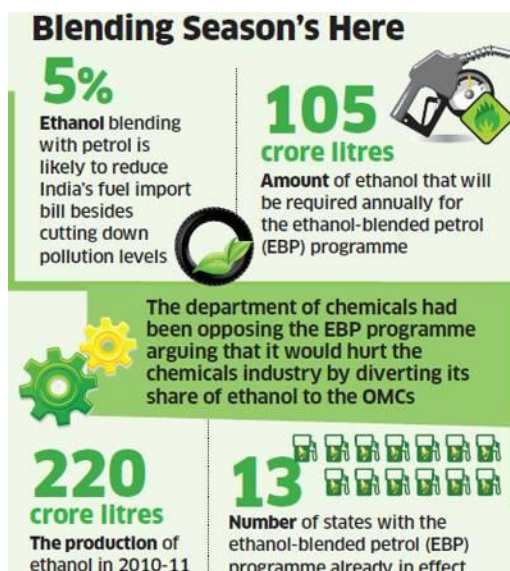
- The programme has been **extended to whole of India** except **Union Territories of Andaman Nicobar and Lakshadweep islands** with effect from **01st April 2019.**
- It seeks to **achieve blending of Ethanol** with motor sprit with a **view to reducing pollution**, conserve **foreign exchange and increase value addition** in the **sugar industry enabling** them to **clear cane price arrears of farmers.**
- It seeks to **reduce import dependence** for **energy requirements** and **give boost to agriculture sector.**
- The **ethanol is procured by state-run oil marketing companies** under the **Centre's Ethanol Blended Petrol (EBP) Programme** and the higher prices will **help the sugar industry** pay their **dues to sugarcane farmers.**
- The ethanol procured under the EBP programme are ethanol from
    1) Sugarcane juice/sugar/sugar syrup
    2) B heavy molasses
    3) C heavy molasses
    4) Damaged Food grains/other sources

Note:

- The Government has **10% blending** target for mixing **ethanol with petrol by 2022 & 20% blending target by 2030.**

Aiming for an eco boost

Oil industry experts have allayed fears over mixing ethanol with petrol and say it cannot damage engines

- Ethanol is a bio-fuel obtained primarily from sugarcane. Blending of ethanol with petrol reduces dependence on fossil fuel and helps the environment
- The government had set a target of 10% of ethanol per litre of petrol
- Ethanol is blended through a separate pumping and metering mechanism
- Once blended, ethanol cannot be separated from petrol

Since ethanol can absorb moisture from the atmosphere, dealers say it can cause issues with vehicle engines

Topic- GS Paper III–Environment
Source-The Hindu

Geography

Dhaulasidh Hydro Project

Why in the news?

- **Prime Minister** has announced the **construction of 66 MW Dhaulasidh Hydro Project** at **Hamirpur, Himachal Pradesh**.

About Dhaulasidh Hydro Project

- The **project is proposed** on the **horseshoe curve of the Beas**.
- The name **Dhaulasidh Hydro Project** is due to the **local deity Dhaulasidh near the project.**
- It is **planned on the flow of the Beas** near the **temple at Amli village** in **Nadaun sub-division** of Hamirpur district.
- The **aim is to generate hydroelectricity** and use **water for irrigation** in **adjoining areas** of both districts.
- The **salient feature of the project** is the **concrete gravity dam.**

Topic- GS Paper I–Geography
Source-The Hindu

NATO Chief Calls for Nagorno-Karabakh Ceasefire

Why in the news?

- **NATO Secretary-General Jens Stoltenberg** recently called for a **ceasefire in Nagorno-Karabakh** as the **death toll continued to rise** from clashes in the **breakaway enclave in the South Caucasus.**
- **Turkey,** meanwhile, **urged the alliance to call for the withdrawal of Armenian forces** from the region, **which belongs to Azerbaijan under international law** but is **populated and governed by ethnic Armenians.**

About Nagorno-Karabakh

- **Nagorno-Karabakh** also known as **Artsakh is a landlocked region** in the **South Caucasus**, within the **mountainous range of Karabakh**, lying **between Lower Karabakh and Zangezur**.

- Nagorno-Karabakh is a **disputed territory**, internationally **recognized as part of Azerbaijan.**
- It is **mostly governed by the Republic of Artsakh** (formerly named Nagorno-Karabakh Republic [NKR]), a **de facto independent state** with an **Armenian ethnic majority established** based on the **Nagorno-Karabakh Autonomous Oblast** of the **Azerbaijan Soviet Socialist Republic**.
- **Azerbaijan** has **not exercised political authority** over the region since the advent of the **Karabakh movement in 1988.**
- Since the end of the **Nagorno-Karabakh War in 1994**, representatives of the **governments of Armenia and Azerbaijan** have been holding peace talks mediated by the **OSCE Minsk Group** on the **region's disputed status**.

Related Information

About North Atlantic Treaty Organization

- It is an **intergovernmental political and military alliance** among **29 independent member countries** across **North American and European states.**
- It is Headquartered **at Brussels, Belgium**.
- The **key member States** included the **United States, Canada, and American allies in Europe.**
- **NATO is committed** to the principle that an **attack against one or several of its members** is considered as **an attack against all.**
- This is the **principle of collective defence**, which is enshrined in **Article 5 of the Washington Treaty.**

Recent Developments

- Recently **Members of NATO** are gathered in **London to celebrate the 70th anniversary of the defence alliance**.

Topic- GS Paper I–Geography

Source-Indian Express

Sittwe Port

Why in the news?

- **India and Myanmar** have agreed to work towards the **operationalization of the Sittwe port** in the **Rakhine state in the first quarter of 2021**.

About Sittwe Port
- It is a **deepwater port** constructed by **India in 2016 at Sittwe**, the capital of **Rakhine State in Myanmar.**
- The port is situated at the **mouth of the Kaladan River** and is being financed by **India as a part of the Kaladan Multi-Modal Transit Transport Project**.

About Kaladan Multi-Modal Transit Transport Project
- The **Kaladan project** connects **Sittwe Port in Myanmar** to the **India-Myanmar border.**
- The project was **jointly initiated by India and Myanmar** to create a **multi-modal platform** for **cargo shipments** from the **eastern ports to Myanmar** and to the **North-eastern parts of the country through Myanmar**.
- In **Myanmar**, it will then **link Sittwe seaport to Paletwa in Chin State** via the **Kaladan river boat route** and then from **Paletwa by road to Mizoram** state in **Northeast India**.

Significance
- The project will **reduce distance from Kolkata to Sittwe** by approximately **1328 km.**
- It will also reduce the **need to transport goods** through the **narrow Siliguri corridor** also known as **Chicken's Neck.**

Note:
- India has also **announced a grant of two million US Dollars** for the construction of the **border Haat Bridge at Byanyu/Sarsichauk in Chin State** that will provide **increased economic connectivity** between **Mizoram and Myanmar.**

Topic- GS Paper I–Geography
Source-The Hindu

Kaleshwaram project
Why in the news?
- Recently, the **National Green Tribunal, New Delhi**, ruled that the **Environmental Clearance** given to the **Kaleshwaram project** in **December 2017** was void as the **Telangana government** subsequently changed the **design of the project** to **increase its capacity.**

What is the Kaleshwaram Lift Irrigation Project?
- The **Kaleshwaram Lift Irrigation System** is one of the **world's largest multi-purpose projects**.
- It is **designed to provide water for irrigation** and **drinking purposes** to about **45 lakh acres in 20 of the 31 districts in Telangana**, apart from **Hyderabad and Secunderabad**.
- It is **completely constructed** by the **end of 2020.**

What does the project entail?
- This **project is unique** because **Telangana will harness water** at the **confluence of two rivers** with **Godavari by constructing** a barrage at **Medigadda in Jayashankar Bhupalpally district** and reverse pump the water into the **main Godavari River** and divert it through lifts and pumps into a huge and **complex system of reservoirs**, **water tunnels, pipelines and canals.**
- The project has set **many records with the world's longest water tunnels**, aqueducts, underground surge pools, and biggest pumps.

Related Information
Mission Bhagiratha
- **Bhagiratha** is a **project for safe drinking water** for every village and city **household in Telangana State**.
- The project is a **brainchild of Telangana Chief Minister**, K. **Chandrashekar Rao**, that **aims to provide piped water** to households in urban and in **rural areas of Telangana.**
- The project will **supply clean drinking water** to all households in the state **through water sourced** from **River Godavari and River Krishna**.

Topic- GS Paper I– Geography
Source- Indian Express

Lost River of Thar Desert
Why in the news?
- Recently researchers have found the evidence of a **"lost" river** that ran through the **central Thar Desert**, near **Bikaner**, as early as **172 thousand years ago**, and may have been a **life-line to human populations** enabling them to **inhabit the region.**

Method Used
- The **researchers used a method called luminescence** dating to **understand when quartz grains** in the **river sands were buried.**

About the findings
- The **findings represent** the **oldest directly dated phase of river activity** at **Nal Quarry in the central Thar Desert.**
- The study indicates that **Stone Age populations** lived in a distinctly different **Thar Desert landscape** than we **encounter today.**
- The **presence of a river** running through the **central Thar Desert** would have offered a **lifeline to Paleolithic populations**, and potentially an **important corridor for migrations**.
- This **evidence indicates a river flowed** with phases of activity dating to approximately up to **172 thousand years ago**, nearby to **Bikaner, Rajasthan**, which is **over 200 kilometres** away from the **nearest modern river.**
- These **findings predate evidence** for **activity in modern river courses** across the **Thar Desert** as well as dried up course of the **Ghaggar-Hakra River**.
- The results indicated that the **strongest river activity** at **Village of Nal** occurred at **approximately 172 and 140 thousand years ago**, at a time when the monsoon was much weaker than **today in the region**. **River activity** continued at the site between **95 to 78 thousand years ago**.

Related Information
About Thar Desert
- The **Thar Desert**, also known as the **Great Indian Desert**, is a large arid **region in the north-western part** of the **Indian subcontinent** and forms a natural boundary between **India and Pakistan.**
- The Thar Desert extends between the **Aravalli Hills in the north-east**, the **Great Rann of Kutch** along the **coast and the alluvial plains** of the **Indus River** in the **west and north-west**.
- About **85%** of the **Thar Desert** is located within **India,** with the **remaining 15% in Pakistan.**
- Within Pakistan's Punjab province, **the Thar continues as the Cholistan Desert.**

Topic- GS Paper I– Geography
Source- Livemint

Yellow dust

Why in the news?

- The **North Korean authorities** have **urged citizens to remain indoors** to **avoid contact** with a **mysterious cloud** of **'yellow dust'** blowing in from China, which they have warned could **bring Covid-19** with it.

About Yellow dust

- **Yellow dust** is sand from **deserts in China** and **Mongolia** that **high speed surface winds** carry into **both North and South Korea** during specific periods every year.
- The **sand particles** tend to **mix with other toxic substances** such as **industrial pollutants**, because of which the **'yellow dust'** is known to cause several **respiratory ailments.**
- Usually, when the **dust reaches unhealthy levels** in the **atmosphere, authorities urge** people to **remain indoors** and **limit physical activity**, particularly **heavy exercise, and sport**.
- Sometimes, when the **concentration of yellow dust** in the **atmosphere crosses around 800 micrograms/cubic meter**, schools are **shut, and outdoor events** cancelled in the **affected areas**.

Note:

- The **US Centres for Disease Control (CDC)** has said the Covid-19 virus can remain **airborne for hours**, it has also **maintained that it is highly unlikely** for the **Covid-19 infection** to spread in this way, **particularly outdoors.**

Topic- GS Paper I– Geography
Source- The Hindu

Khadi Oaxaca

Why in the news?

- Recently **Prime Minister Narendra Modi** made a **reference to the region of Oaxaca** (pronounced O-aa-ha-ka) in **Mexico**, where he said **khadi was being manufactured**, and narrated an anecdote about how khadi reached the **Latin American country** after a **local resident** became influenced **by a film on Mahatma Gandhi.**

What is Mexico's Khadi Oaxaca?

- **Khadi Oaxaca** is a **farm-to-garment collective** which **comprises around 400 families**, which live and work on **traditional farms and homesteads** in the **Oaxaca region of southern Mexico**.

- It has been founded by Mark **"Marcos" Brown**, an **American living in Mexico,** and his wife, Kalindi Attar.
- They use **cotton produced and cultivated** on the **Oaxaca coast**, and produces **chemical-free clothing**, relying on **locally harvested plant-based dyes.**

Topic- GS Paper I–Geography
Source-The Hindu

Security

Shaurya Missile

Why in the news?

- A **successful trial** of the **nuclear capable Shaurya missile** was **conducted by India.**

About Shaurya Missile

- **Shaurya** is a **land-based parallel of the submarine** launched **K-15 missile.**
- These **ballistic weapons** belong to the **K missile family** — codenamed after late **Dr APJ Abdul Kalam — which are launched from Arihant class of nuclear submarines.**

The K Family of missiles

- The **K family of missiles** is primarily **Submarine Launched Ballistic Missiles (SLBMs),** which have been **indigenously developed by Defence Research and Development Organisation (DRDO).**
- The **development of these naval platform launched missiles** began in the **late 1990s** as a **step towards completing India's nuclear triad** — the **capability of launching nuclear weapons** from **land, sea, and air-based assets.**
- Because these **missiles are to be launched from submarines**, they are **lighter, smaller, and stealthier** than their **land-based counterparts**; the **Agni series of missiles** which are **medium and intercontinental range nuclear capable ballistic missiles.**
- While **K family are primarily submarine-fired missiles** to be fired from **India's Arihant class nuclear powered platforms**, the land and air variants of some of its members have also been **developed by the DRDO.**

The strategic importance of SLBMs

- The capability of being able to **launch nuclear weapons submarine platforms** has **great strategic importance** in **context of achieving a nuclear triad**, especially in the **light of 'no first use' policy of India.**
- The **sea-based underwater nuclear capable assets** significantly increase the **second-strike capability of a country** and thus **boosts its nuclear deterrence.**

- These submarines can not **only survive a first strike** by the adversary but also can **launch a strike in retaliation** thus **achieving Credible Nuclear Deterrence.**
- The **2016 commissioned nuclear powered Arihant submarine** and its **class members which in the pipeline** are the **assets capable of launching missiles** with **nuclear warheads.**

Topic- GS Paper III–Defence
Source-The Hindu

Constellation of Maritime Surveillance Satellites
Why in the news?
- Recently, the **constellation of maritime surveillance satellites** for the **Indian Ocean Region** is to be **jointly launched** by **India and France.**

How it helps in Maritime Surveillance?
- These **satellites** will be able to **trace illegal spillage of oil by ships.**
- The **monitoring centre** will be **based in India** and will be **operated jointly by France and India** to monitor **ships in the Indian Ocean**.
- The system will also **cover a wide belt around the globe**, benefiting a **broad range of French economic interests.**
- The **parts of the satellites** will **be built in both the countries** and **launched from India.**
- **Thermal InfraRed Imaging Satellite for High resolution Natural resource Assessment (TRISHNA)** is a highly precise **thermal infrared observer**, will also be part of the **fleet of Indo-French satellites.**

First space-based system
- In **2019, CNES and ISRO** committed to **developing and building a constellation of satellites** carrying **telecommunications and radar** and **optical remote-sensing instruments**.
- The **agreement between India and France** called for constituting the **first space-based system** in the **world capable of tracking ships continuously.**

Related Information
About Thermal infraRed Imaging Satellite for High resolution Natural resource Assessment
- It will be the **latest satellite** in the **joint Franco-Indian satellite fleet.**
- It is **dedicated to climate monitoring** and **operational applications.**

- **TRISHNA observations** will **enhance the understanding of the water cycle** and **improve management** of the **planet's precious water resources.**

Topic- GS Paper III—Defence
Source-The Hindu

Supersonic Missile Assisted Release of Torpedo (SMART) system
Why in the news?

- **India** successfully **conducted the flight test** of a **Supersonic Missile Assisted Release of Torpedo (SMART) system** developed by the **Defence Research and Development Organisation (DRDO)** from the **Wheeler Island, off the coast of Odisha.**
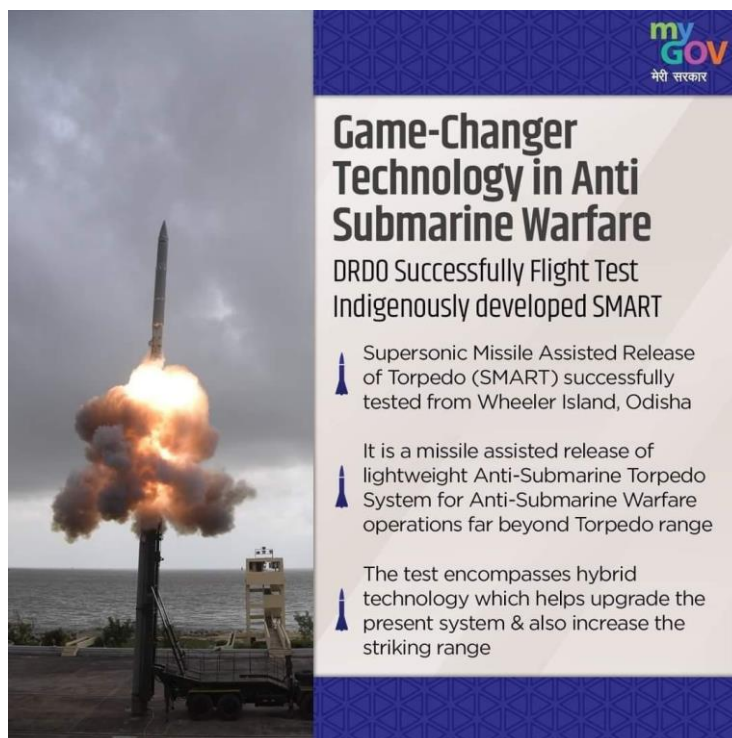
What is SMART system?

- The **SMART system** comprises a mechanism by which the **torpedo is launched from a supersonic missile system** with modifications that would take the torpedo to a **far longer range than its own.**
- For example, a torpedo with a **range of a few kilometres** can be sent a distance to the **tune of 1000 km** by the **missile system** from where the **torpedo is launched**.
- It is developed by a **number of DRDO laboratories** including **DRDL, RCI Hyderabad, ADRDE Agra and NSTL Visakhapatnam** have developed the **technologies required for SMART.**
- **Torpedoes, self-propelled weapons** that travel underwater to hit a target, are limited by their range.
- The system also gives **flexibility in terms of the missile system's** launch platform.

Background

- In the **mid-2010s, DRDO undertook** a project to build **capacity to launch torpedoes assisted by missiles**.

Why is it significant?

- **SMART** is a **game-changing technology demonstration** in **anti-submarine warfare.**
- India's **anti-submarine warfare capacity building** is crucial in light of **China's growing influence** in the **Indian Ocean region.**
- The **capability of launching nuclear weapons** from **submarine platforms has great strategic importance** in light of the **"no first use" policy of India.**

Related Information

Recent naval advancements by India

Shaurya

- It is an **indigenously developed nuclear capable hypersonic missile** with a **strike range of around 1,000 km** was tested successfully recently.
- Shaurya is a **land-based parallel** of the submarine-**launched K-15 missile.**

K-4 missiles

- DRDO has recently **conducted two successful tests** of the **K Family's K-4 missiles.**
- The missile, developed by the **DRDO, has a range of 3,500 km.**
- The missile is being **developed for integration** with **India's Arihant class nuclear submarines.**

Topic- GS Paper III–Defence

Source-Indian Express

Opposition: A phenomena that will make Mars brightest

Why in the news?

- Recently because of an event referred to as **"opposition", Mars** will outshine **Jupiter, becoming the third brightest object** (after moon and Venus) in the **night sky.**
- According to NASA, the opposition, which **takes place every two years** and **two months,** will happen on **October 13,** which will give the planet its **"biggest, apparent size of the 2020s".**
- **Mars's next** close approach will happen **on December 8, 2022.**
- The **closest approach** does not **mean that Mars will appear** to be **the same size as that of the moon.**

What is opposition?

- Opposition is the event when the **sun, Earth, and an outer planet** (Mars in this case) are lined up, with the **Earth in the middle.**

- The **time of opposition is the point** when the **outer planet is typically also at its closest distance to the Earth** for a given year, and because it is **close, the planet appears brighter in the sky.**

- An opposition can **occur anywhere along Mars' orbit**, but when it happens when the planet is **also closest to the sun**, it is also **particularly close to the Earth.**

When does opposition happen?

- **Earth and Mars orbit** the **sun at different distances** (Mars is farther apart from the sun than Earth and therefore takes longer to complete one lap around the sun).
- In fact, **opposition can happen** only for **planets that are farther away** from the **sun than the Earth**.
- In case of **Mars, roughly every two years**, the **Earth passes between sun and Mars**, this is when the **three are arranged in a straight line.**
- Further, as the **Earth and Mars orbit the sun**, there comes a point when they are on the **opposite sides of it,** and hence very far apart.
- The Mars is about **400 million km from the Earth.**

Topic- GS Paper III– Defence
Source- Indian Express

Exercise Suraksha Kavach
Why in the news?

- Recently **Agnibaaz Division organized Exercise Suraksha Kavach**, a **Joint Anti-Terrorist Exercise** for both **Indian Army and Maharashtra Police at Lullanagar Pune.**

About Exercise Suraksha Kavach
- The **aim of the exercise** was to **harmonize the drills and procedures of both Army and Police** for activating **anti-terrorist Quick Reaction Teams (QRTs)** to counter **any terrorist actions in Pune.**
- The **exercise involved participation of Quick Reaction Teams**, Dog Squads and Bomb Disposal Teams of Army as well as **Anti-Terrorism Squad (ATS) and Quick Reaction Team of Maharashtra Police.**
- The exercise provided an **opportunity for both Army and Police to cooperate,** coordinate, co-opt and streamline their drills and procedures.

Topic- GS Paper III– Defence
Source- DD News

INS Sindhuvir
Why in the news?
- **Recently India** will be **delivering a Kilo Class submarine INS Sindhuvir** to **Myanmar Navy** as **part of defense cooperation**.

About Kilo Class submarine INS Sindhuvir
- Kilo class refers to **diesel-electric attack submarines** that were designed and built in the **erstwhile Soviet Union.**
- This will be the **first submarine of Myanmar Navy.**

Related Information
India - Myanmar Defence Relations
- **India** and **Myanmar Cooperation** in the **maritime domain** is an important part of **India's enhanced engagement with Myanmar**.
- It is in accordance with **India's vision of SAGAR (Security and Growth for All in the Region)** and in line with **build capacities and self-reliance** in all the neighbouring countries.
- **Myanmar** is **one of India's strategic neighbours** and shares a **1,640-kilometer-long border** with several **north-eastern states** including **militancy-hit Nagaland and Manipur**.

Topic- GS Paper III–Defence
Source- The Hindu

Malabar exercise 2020
Why in the news?
- Amid the **ongoing stand-off with China**, the **Ministry of Defence** recently announced that **Australia will join the Malabar 2020 naval exercise**.

- This year, the exercise had been planned on a **'non-contact - at sea' format**.
- The exercise will bolster the **ability of India, Australia, Japan,** and the **United States** to **work together to uphold peace** and stability across our region.

About Malabar exercise
- It is an **annual exercise** between the **navies of India, Japan**, and **the U.S.** held alternately in the **Indian and Pacific Oceans.**
- It **began in 1992** as a **bilateral exercise between India and the U.S.**
- Then it got **permanently expanded** into a **trilateral format** with the **inclusion of Japan in 2015**.
- **MALABAR 2019** would endeavour to **further strengthen India - Japan - US Naval cooperation** and **enhance interoperability**, based on shared values and principles.

Other Related Exercise
Between Indian and Japan
- **India and Japan defence forces** organize a **series of bilateral exercises** namely, **JIMEX, SHINYUU Maitri, and Dharma Guardian.**

Between India and US
- **India and USA** conduct **Joint Military Exercises** namely, **Yudha Abhyas**.

Between Australia and India
- The bilateral exercises between **India and Australia** are **Pitch Black and AUSINDEX.**

Topic- GS Paper III– Defence
Source- The Hindu

Anti-Tank SANT Missile
Why in the news?
- Recently, **India** has successfully **flight tested indigenously developed Stand-off Anti-tank (SANT) missile** from a ground-based platform off Odisha coast.

About Anti-Tank SANT Missile
- It is an **air-to-surface missile developed by DRDO for the Indian Air Force.**

- It is an **upgrade on India's Helina missile believed** to have a range of **7 to 8km.**

- The new missile has a **range of 15-20 km** and is **equipped with a new nose-mounted active radar seeker**, to help keep the **launch platform at a safe distance**, to evade defensive fire from the target area.
- **The SANT missile** has both **lock-on before launch** and **lock-on after launch capability.**
- The **missile will be inducted** after a **series of tests** from the **actual launch platform on-board light** combat **helicopters and advanced light helicopters.**

Related Information

Other anti tank missiles

- The **DRDO** has developed several **state-of-the-art anti-tank missiles** in the '**Nag' range.**
- These include the **Prospina**, which is used by the **infantry** and has a **range of up to 4km.**
- The **Man Portable Anti-Tank Guided Missile (MPATGM),** which can be launched from the shoulder.
- The **Helina (Helicopter based NAG) missiles**, which are customised for a **helicopter-led assault** on the enemy's tanks.
- The **Nag** is also a **'fire and forget' missile.**

Topic- GS Paper III—Defence

Source- The Hindu

Vessel traffic services (VTS) and Vessels Traffic Monitoring Systems (VTMS)

Why in the news?

- Recently, the **Union Ministry of Shipping** launched the **development of Indigenous Software** solution for **Vessel traffic services (VTS)** and **Vessels Traffic Monitoring Systems (VTMS).**

About Vessel traffic services (VTS) and Vessels Traffic Monitoring Systems (VTMS)

- **VTS and VTMS** is software which **determines vessel positions,** position of other **traffic or meteorological hazard warnings** and **extensive management of traffic** within a port or waterway.

About Vessel traffic services

- The **Vessel Traffic Services (VTS)** contribute to safety of life at sea, safety and efficiency of navigation and protection of the marine environment.
- The VTS also provides **protection to adjacent shore areas**, work sites and offshore installations from **possible adverse effects of maritime traffic**.
- The **Vessels Traffic Management Systems** are installed at **busiest waters in the world**, and are **making valuable contribution** to safer navigation, more efficient traffic flow, and **protection of the environment**.
- Currently, **India** has **approximately 15 VTS systems** operational along the **Indian Coast and there is no uniformity of VTS software as each system has its own VTS software.**
- The **indigenous development of VTS software** will benefit with respect to:
    a. Saving of foreign exchange for various VTSs in India.
    b. VTS Software can be provided to Indian trade friendly nations viz. Maldives, Mauritius, Myanmar, Sri Lanka, Mauritius, Bangladesh and Gulf countries
    c. Minimize the cost for future upgradations of software.
    d. Easier to interconnect with MIS/ERP softwares of ports.
- **Availability of Indian VTS software** shall make Indian companies to be **competitive commercially** in global bids.

About Vessels Traffic Monitoring Systems (VTMS)

- VTMS is mandatory under **International Maritime Organization** Convention SOLAS (Safety of Life at Sea).
- The **VTMS traffic image** is compiled and **collected by means of advanced sensors** such as radar, AIS, direction finding, CCTV and Very high frequency (VHF).
- A modern **VTMS integrates all the information** into a **single operator working environment** for ease of use and to allow for effective traffic organization and communication.

Related Information

About Safety of Life at Sea (SOLAS)

- It is an **international maritime treaty** that requires signatory flag states to ensure that flagged vessels meet **minimum safety standards for operation**, equipment, and construction.
- It was born after the sinking of the **1914 RMS Titanic.**
- The third version of the **Convention was adopted in 1960** and entered into **force in 1965.**
- It contains various chapters dealing with **shipbuilding, security, cargo transport** and **International Ship and Port Facility Security Code.**
- It provides for **international maritime safety for flag vessels** to meet minimum safety standards with **reference to the construction**, equipment, and operation.

Topic- GS Paper III–Defense

Source- PIB

INS Kavaratti

Why in the news?

- The **last of four indigenously built Anti-Submarine Warfare (ASW)** stealth corvettes **"INS Kavaratti"** under **Project 28 (Kamorta class)** is scheduled to be **commissioned into the Indian Navy on 22 October 20**.

About Project 28 (Kamorta class)

- Project 28 is a **project under which four Anti-Submarine Warships** must be built **indigenously in India by Garden Reach Shipbuilders and Engineers (GRSE), Kolkata.**

- Project 28 was **approved in 2003**, with construction of the lead ship, **INS Kamorta** commencing on **12 August 2005**.
- The other **three warships** under this project are **INS Kamorta** (commissioned in 2014), **INS Kadmatt** (2016) and **INS Kiltan** (2017).

About Kavaratti

- It has a **state-of-the-art weapons** and **sensor suite capable of detecting** and **prosecuting submarines**.
- In addition to its **anti-submarine warfare capability**, the ship also has a **credible self defence capability** and **good endurance for long-range deployments.**
- Kavaratti takes her name from erstwhile **INS Kavaratti** which was an **Arnala class missile corvette.**
- The **older Kavaratti distinguished** herself by operating in support of was **Bangladesh's liberation in 1971**.

Topic- GS Paper III– Defence
Source- AIR

Miscellaneous (Schemes, Repots and Committees)

Safe Motherhood Assurance (SUMAN) Initiative
Why in the news?

- Recently, the **Union Minister for Health and Family Welfare** participated in the **Partnership for Maternal, Newborn and Child Health (PMNCH)** 'Accountability Breakfast' and lauded the efforts of **Safe Motherhood Assurance (SUMAN) initiative.**
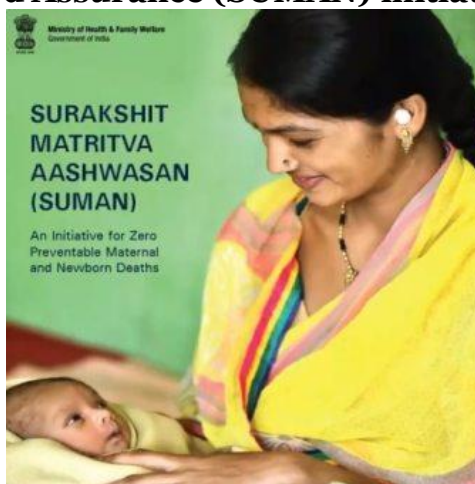
About Safe Motherhood Assurance (SUMAN) initiative

- This initiative was launched by the **Ministry of Health and Family Welfare** during the **13th Conference of Central Council of Health and Family Welfare** in **2019**.
- It focuses on **assured delivery of maternal and newborn healthcare services** encompassing wider **access to free and quality services.**

- It is **aimed at zero tolerance** for **denial of services, assured management of complications** along with respect for **women's autonomy**, dignity, feelings, choices, and preferences, etc.
- All **Pregnant Women/Newborns** visiting public health facilities are entitled to free services provided under the **SUMAN initiative**.
- Under this programme, **Pregnant women**, mothers up to **6 months after delivery**, and **all sick newborns** will be able to **avail free healthcare benefits**.

These include:
- At least four antenatal check-ups
- One checkup during the 1st trimester
- At least one checkup under Pradhan Mantri Surakshit Matritva Abhiyan
- Iron Folic Acid supplementation
- Tetanus Diptheria injection and
- other components of comprehensive ANC package and six home-based newborn care visits

About Central Council of Health and Family Welfare (CCHFW)
- It is an **apex advisory body** set up under **Article 263 of the Constitution**.
- It provides **support and advice to the Department of Health, Ministry of Health and Family Welfare** on policy formulation and to consider and recommend broad lines of policy regarding **matters concerning health**.

Organizational Structure of Council:
- **Union Minister for Health & Family Welfare** is the **Chairperson of the Council and Minister of State for Health & Family Welfare** is the **Vice-Chairperson** of the council.

Article 263 of the Constitution
- Article 263 contemplates the establishment of an **Inter-State Council** to effect coordination between **Centre and states**.
- Thus, the **President** can establish such a **council if at any time** it appears to him that the **public interest** would be **served by its establishment**.
- Therefore, the **president** has established the **following councils to make recommendations for the better coordination** of policy and action in the related subjects:
  o Central Council of Health.
  o Central Council of Local Government and Urban Development.
  o Four Regional Councils for Sales Tax for the Northern, Eastern, Western and Southern Zones.

Topic- GS Paper III—Health Issue
Source-The Hindu

Ambedkar Social Innovation & Incubation Mission
Why in the news?
- **Union Social Justice Minister** launched the **Ambedkar Social Innovation and Incubation Mission under Venture Capital Fund** for SCs, with a view to **promoting innovation and enterprise** among SC students **studying in higher educational institutions**.

About Ambedkar Social Innovation Incubation Mission
- Under **Ambedkar Social Innovation Incubation Mission initiative**, one thousand scheduled caste youth will be **identified in the next four years** with **start-up ideas** through the **Technology Business Incubators** in various **higher educational institutions**.
- They will be **funded 30 lakh rupees** in **three years as equity funding** to translate their **start-up ideas into commercial ventures**.
- Successful ventures would further **qualify for venture funding** of **up to five Crore rupees** from the **Venture Capital Fund** for **scheduled caste.**

About Venture Capital Fund for scheduled caste
- The fund has been launched by **Social Justice Ministry in 2014-15** with a view to **developing entrepreneurship** amongst the **scheduled caste and Divyang youth** and to **enable them to become job-givers**.
- The objective of this **fund is to provide concessional finance** to the **entities of the scheduled caste entrepreneurs**.
- Under this fund, **117 companies promoted by SC entrepreneurs** have been **sanctioned financial assistance** to set up **business ventures.**

Topic- GS Paper II–Governance
Source-Indian Express

International Day for Older Persons
Why in the news?
- **Union Minister for Health & Family Welfare** launched **Decade of Healthy Ageing (2020-2030) in India** on **International Day for Older Persons**.

About Decade of Healthy Ageing (2020-2030)
- The **Decade of Healthy Ageing 2020–2030**, which will **consist of 10 years of concerted, catalytic, sustained collaboration**.

- Older people themselves will be at the **centre of this plan**, which will bring together **governments, civil society, international agencies, professionals, academia, the media** and the private sector to **improve the lives of older people, their families and their communities.**
- The aims of the **Decade of Healthy Ageing** will include **evolving convergence within various national health programs** and also promoting **inter-sectoral coordination** with other line **Departments/Ministries.**
- It is the second action plan of the **WHO Global Strategy on Ageing and Health**, building on the **United Nations Madrid International Plan of Action on Ageing.**
- It also aligned to the timing of the **United Nations Agenda 2030 on Sustainable Development and the Sustainable Development Goals (SDGs).**
- The **2030 Agenda for Sustainable Development** sets out a **universal plan of action** to achieve **sustainable development in a balanced manner** and seeks to **realize the human rights of all people.**
- It calls for leaving no one behind and for ensuring that **the Sustainable Development Goals (SDGs)** are met for all segments of society, at all ages, with a particular focus on the **most vulnerable—including older persons.**
- **Healthy Ageing** is developing and **maintaining the functional ability** that enables **well-being in older age.**
- Following the **146th WHO Executive Board's recommendation made in February 2020**, the **73rd World Health Assembly** has endorsed the proposal for a **Decade of Healthy Ageing (2020-2030).**

Key ageing facts

- By the end of the **Decade of Healthy Ageing (2020–2030),** the number of people **aged 60 years and older will be 34% higher**, increasing from **1 billion in 2019 to 1.4 billion.**
- **By 2050**, the **global population of older people** will have more than **doubled, to 2.1 billion.**
- The **number of persons 60 years** and older will **grow fastest in developing countries.**
- Women tend to **live longer than men**.
- The **pace of population ageing** is accelerating.

About International Day of Older Persons

- Every year **1st October** is celebrated as the **International Day of Older Persons, as declared by United Nations.**
- The **UN theme of the International Day of Older Persons 2020** is "**Pandemics: Do They Change How We Address Age and Ageing?**"
- This day is able to **recognize, enable and expand the contributions** of older people in their **families, communities and societies at large** and to raise awareness towards issues of ageing.

Longitudinal Aging Study of India (LASI)
- In order to **generate comprehensive data on social**, **economic and health conditions of the elderly**, the Government undertook **Longitudinal Aging Study of India.**
- It is the **first nationwide study and world's largest study** on older adults which will provide evidence base for **national and state level programs** and policies for **elderly population**.
- The **findings of LASI** are being **finalized by the Ministry** and will be **released shortly.**

Topic- GS Paper II–Governance
Source-PIB

Swachh Bharat Puraskar
Why in the news?
- The **Swachh Bharat Diwas, 2020** was **celebrated on occasion of Gandhi Jayanti** with the **distribution of Swachh Bharat Puraskar** by the **Ministry of Jal Shakti.**

About Swachh Bharat Puraskar 2020
- The **Swachh Bharat 2020 awards** were conferred to the **best performing States/UTs, districts, blocks, Gram Panchayats** and others in various categories marking **six years of the Swachh Bharat Mission (SBM) launch**.
- **The awards** were given by **Department of Drinking Water and Sanitation (DDWS).**

About Swachh Sundar Samudayik Shauchalaya
- The **Department of Drinking Water and Sanitation (DDWS)** launched a campaign ran from **15 June 2020 to 15 September 2020.**
- Under this, **states, districts,** and **Gram Panchayats** were mobilized to **construct Community sanitary complexes** so that everyone has access to **safe sanitation facilities** in rural India.
- The awards were given to the **top state, district and Gram Panchayat.**
- **Top Awards** were conferred upon **Gujarat, Uttar Pradesh, Haryana, Telangana, Tamil Nadu, Madhya Pradesh, Punjab & others.**
- In state Category: **Gujarat** got the **first prize**.
- In District category: **Tirunelveli, Tamil Nadu**
- **Khachrod, Ujjain, Madhya Pradesh as best block**
- **Chinnaur, (Salem) as the best Gram Panchayat.**

Related Information
About Swachh Bharat Mission
- It is a **nationwide cleanliness campaign** initiated by **Govt. of India** on **2nd October 2014.**

Aim
- It sought to **achieve a Clean India by 2019**, as a **tribute to the 150th Birth Anniversary** of **Mahatma Gandhi.**

Mission Objectives
- Elimination of open defecation
- Eradication of Manual Scavenging
- 100% collection and scientific processing/disposal reuse/recycle of Municipal Solid Waste,
- To bring about a behavioral change in people regarding healthy sanitation practices,
- Generate awareness among the citizens about sanitation and its linkages with public health.
- Strengthening of urban local bodies to design, execute and operate systems,
- To create enabling environment for private sector participation in Capital Expenditure and Operation & Maintenance (O&M) costs.
- Capacity Augmentation for ULBs to create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)

Components:
- Construction of Household Toilets
- Community and Public Toilets
- Solid Waste Management
- Information, Education & Communication (IEC) and Public Awareness,
- Capacity Building and Administrative & Office Expenses (A&OE).

Sub-Missions
Swachh Bharat Mission (Gramin)
- It aims to improve the levels of cleanliness in rural areas through Solid and Liquid Waste Management activities and making villages Open Defecation Free (ODF) and clean.
- It is implemented by Department of Drinking Water and Sanitation, Jal Shakti Ministry

Swachh Bharat Mission (Urban)
- It aims at elimination of open defecation, conversion of unsanitary toilets to pour flush toilets, eradication of manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices.
- It is implemented by Ministry of Housing and Urban Affairs.

Topic- GS Paper II–Governance
Source-PIB

Data Governance Quality Index

Why in the news?

- Recently **Development Monitoring and Evaluation Office (DMEO), NITI Aayog** has released **Data Governance Quality Index (DGQI).**

More about the Survey

- A survey was conducted by **Development Monitoring and Evaluation Office (DMEO), Niti Aayog,** to assess different **Ministries /Departments' performance** on the **implementation of Central Sector Schemes (CS) and Centrally Sponsored Schemes (CSS).**

- **Department of Fertilizers** under the **Ministry of Chemicals and Fertilizers** has been **ranked 2nd amongst the 16 Economic Ministries / Departments** and **3rd out of the 65 Ministries / Departments** with a score **4.11 on a scale of 5 on Data Governance Quality Index (DGQI).**

About Data Governance Quality Index (DGQI)

- It is conducted by **Development Monitoring and Evaluation Office (DMEO), Niti Aayog.**

Aim

- To assess the **data preparedness of ministries/departments** on a **standardized framework** to **drive healthy competition** among them and **promote cooperative peer learning** from best practices.

Major Themes

- In the survey, an **online questionnaire** was prepared **under six major themes of DGQI** -- data generation; data quality; use of technology; data analysis, use and dissemination; data security and HR capacity and case studies.

Weightages
- Weightages were assigned to the **themes and sub-weightages** to each question **within every theme to arrive at final DGQI scores** ranging between **0 to 5 for every scheme**.
- **Categories of Ministries/Departments**: Administrative, Strategic, Infrastructure, Social, Economic and Scientific.

Topic- GS Paper III–Economics
Source-ET

2020 Nobel Prize for Medicine
Why in the news?
- Recently scientists **Harvey J. Alter, Charles M. Rice** (both from the US) and **Briton Michael Houghton (UK)** has won the **2020 Nobel Prize for Medicine** for identifying the **Hepatitis C virus.**

- It is the second **Nobel Prize for Medicine for hepatitis research**, after **Baruch Blumberg won in 1976** for determining that **one form of blood-borne hepatitis** was caused by a virus that came to be known as **Hepatitis B.**

Related Information
National Action Plan - Viral Hepatitis
- It was **launched in 2019** by government at **Mumbai to combat hepatitis** and **achieve countrywide elimination of Hepatitis C by 2030**.
- The **Plan provides a strategic framework**, based on which **National Viral Hepatitis Control Program** was framed and launched in **July 2018** under **National Health Mission** by **Ministry of Health & Family Welfare.**
- The programme is in line with the **country's global commitment** towards achieving **SDG 3.3.**

Other Programme
- The launching of **Swacch Bharat Abhiyan** and **safe drinking water** is also helpful in **tackling for Hepatitis**.
- The **inclusion of Hepatitis B vaccination** under the **expanded Universal Immunization Programme.**

About Hepatitis
- It is an inflammation of the liver.

- The condition can be self-limiting or can progress to fibrosis (scarring), cirrhosis or liver cancer.
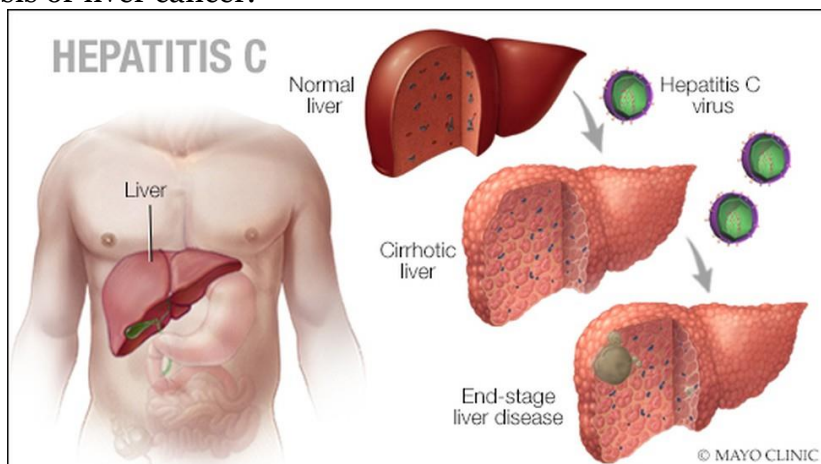
Cause

- **Hepatitis viruses** are the most common cause, but other **infections, toxic substances (e.g. alcohol, certain drugs)**, and **autoimmune diseases** can also cause it.
- There are **five main types** of **hepatitis viruses.**
- These are A, B, C, D and E which will **causes liver disease**, they vary in important ways.
- **Hepatitis A and E** are typically caused by **ingestion of contaminated food or water** (transmitted via oral-faecal route).
- **Hepatitis B, C and D** are transmitted through **unsafe blood transfusions or contaminated needles/syringes** (particularly among the drug users), **sexual-transmission** or even **mother-to-child transmission**.
- **There is no vaccine for Hepatitis C.**

Global status Hepatitis

- **According to WHO estimates**, **viral hepatitis caused 1.34 million deaths** globally in 2015, a **number comparable to deaths due to tuberculosis**, worldwide.
- In **India**, around **4 crore people suffering from Hepatitis B** and **0.6- 1.2 crore people suffering** from **Hepatitis C** and causes **about 4,00,000 deaths each year.**

Note:

- **SDG 3.3 by 2030,** end the **epidemics of AIDS**, **tuberculosis, malaria** and neglected **tropical diseases and combat hepatitis**, **water-borne diseases,** and other **communicable diseases.**

Topic- GS Paper III–Science and Technology
Source-The Hindu

CZA-Prani Mitra Awards

Why in the news?

- **Union Minister of Environment** gave away the **CZA-Prani Mitra awards** to **encourage the zoo officers** and staff towards **working for captive animal management and welfare.**

About CZA-Prani Mitra Awards

- The awards were given in **four categories viz. the Outstanding Director / Curator, Outstanding Veterinarian, Outstanding Biologist /Educationist, Outstanding Biologist /Educationist and Outstanding Animal keeper**.

About the Central Zoo Authority (CZA)

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

Members

- It is chaired by the **Environment Minister** and has **10 members and a member-secretary.**

Objective

- The **main objective of the authority** is to **complement and strengthen** the **national effort in 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-PIB

Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit

Why in the news?

- Recently, the **Prime Minister** has inaugurated **Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit** on **Gandhi Jayanti.**

About Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit

- It is a **collaborative initiative by Science & Technology** and **Academic Organisations of India.**
- It **aims to enable deliberations** on thought **process, practices, and R&D culture** with a **problem -solving approach** for **well-defined objectives**.
- The **VAIBHAV initiative** aims to **bring out the comprehensive roadmap** to **leverage the expertise and knowledge of global Indian researcher** for solving emerging challenges.
- The **aim of summit** is to **reflect in-depth on the collaboration and cooperation instruments** with academia and scientists in India.
- This will also bring out **mechanisms of advancements in education**, **research, and entrepreneurship in India** as an **essential element** of its **overall sustainable development**.

Topic- GS Paper II–Governance
Source-PIB

Production Linked Incentive Scheme
Why in the news?

- **Ministry of Electronics and Information and Technology (MeitY)** has approved 16 eligible applicants under the **Production Linked Incentive Scheme (PLI) Scheme**.

About Production Linked Incentive Scheme

- **Production Linked Incentive Scheme (PLI)** for **Large Scale Electronics Manufacturing** was notified on **1st April 2020.**
- It extends an incentive of **4% to 6% on incremental sales** (over base year) of **goods under target segments** that are **manufactured in India to eligible companies**, for a **period of five years** subsequent to the **base year (FY2019-20).**
- Over the **next 5 years**, the **approved companies** under the **PLI Scheme** are expected to **lead to total production** of more than **INR 10.5 lakh crore**).
- The **companies approved** under the **scheme are expected to promote exports significantly**. Out of the **total production of INR 10,50,000 crore** in the **next 5 years, around 60%** will be contributed by exports of the **order of INR 6,50,000 crore.**
- The **companies approved** under the scheme will **bring additional investment in electronics manufacturing** to the tune of **INR 11,000 crore.**

Topic- GS Paper III–Economics
Source-PIB

Poverty and Shared Prosperity 2020: Reversals of Fortune
Why in the news?

- **Global extreme poverty** is expected to **rise in 2020 for the first time** in over 20 years as the **disruption of the COVID-19,** the **World Bank** highlighted in its **biennial Poverty and Shared Prosperity Report**.

Highlights of the report

- The **Poverty and Shared Prosperity series** of **report by World Bank** provides the **latest and most accurate estimates** on trends in **global poverty and shared prosperity.**
- For **more than two decades**, extreme poverty was **steadily declining.**

- Now, for the **first time in a generation**, the **quest to end poverty** has suffered its **worst setback.**
- **'Poverty and Shared Prosperity 2020**: Reversals of Fortune provides new data and analysis on the causes and consequences of this reversal and identifies policy principles countries can use to counter it.
- The **report presents new estimates** of COVID-19's **impacts on global poverty and inequality.**
- The report shows that pandemic-**related job losses** and deprivation **worldwide** are **hitting already-poor and vulnerable people** hard, while also **partly changing the profile of global poverty** by creating **millions of "new poor."**
- This report provides new evidence on **emerging "hot spots,"** where multiple **threats to poor people's lives** and livelihoods converge.
- Many of these hot spots are in **Sub-Saharan Africa**, a region now expected to be home to **about a third of the people** who are **newly impoverished by COVID-19.**
- The pandemic may push **another 88 million to 115 million** into **extreme poverty** or having to **live on less than $1.50 per day**, resulting in a **total of 150 million such individuals.**
- Some **9.1% to 9.4% of the world** will be **affected by extreme poverty in 2020**.

Related Information
Other Important Reports of World Bank
1. Ease of Doing Business
2. World Development Report
3. Global Economic Prospect (GEP) Report
4. Remittance Report
5. Ease of Living Index
6. India Development Update
7. Global Financial Development Report
8. Energy Efficiency Implementation Readiness
9. Human Capital Index (Prepared as a part of World development Report)
10. Regulatory Indicators for Sustainable Energy (RISE)
11. Logistics Performance Index
12. Report: A Glass Half Full: The promise of Regional Trade in South Asia
13**. Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle**
14. Human Capital Index (Prepared as a part of World development Report)
15. **Universal Health Coverage Index (World Bank + WHO)**

Topic- GS Paper II−International Organisation
Source-World Bank

International Barcode of Life
Why in the news?

- Recently a **Memorandum of Understanding (MoU)** has been signed between **Zoological Survey of India (ZSI),** a subordinate organization under **Ministry of Environment, Forest and Climate Change** and

International Barcode of Life (iBOL), a **Canadian not-for-profit corporation.**

About the Memorandum of Understanding

- **ZSI and iBOL** have come together for **further efforts in DNA barcoding**, a **methodology for rapidly** and **accurately identifying species** by **sequencing a short segment** of standardized **gene regions and comparing individual sequences** to a reference database.
- **iBOL is a research alliance** involving nations that have committed both **human and financial resources** to enable **expansion of the global reference database,** the **development of informatics platforms**, and/or the **analytical protocols needed to use the reference library** to inventory, assess, and describe biodiversity.

- The **MoU will enable ZSI** to participate at the **Global level programmes** like **Bioscan and Planetary Biodiversity Mission**.

Related Information

About Zoological Survey of India

- The Zoological Survey of India (ZSI), a **subordinate organization of the Ministry of Environment and Forests** was **established in 1916.**
- It is a **national centre for faunistic survey** and **exploration of the resources** leading to the **advancement of knowledge** on the exceptionally **rich faunal diversity of the country.**
- It has its **headquarters at Kolkata** and **16 regional stations** located in different **geographic locations of the country.**

Topic- GS Paper III—Environment
Source-AIR

India's first advanced manufacturing hub (AMHUB) to be set up in Tamil Nadu
Why in the news?

- The **Advanced Manufacturing Hub (AMHUB)** which is **first of its kind** in the country will be jointly set up by **World Economic Forum and Guidance in Tamil Nadu.**

What is AMHUB?

- The advanced manufacturing hub or AMHUB is **one of the 19 platforms designed by World Economic Forum (WEF).**
- Tamil Nadu's nodal investment promotion agency called as **Guidance** will also be joining hands with WEF.
- This platform focuses on **engaging entire regional production ecosystems** to identify and address regional opportunities and challenges brought by the **Fourth Industrial Revolution (4IR)** by amplifying regional success stories, sharing best **practices and incubating new partnerships.**
- As per WEF, the **Fourth Industrial Revolution** can be described as the **advent of cyber-physical systems** involving **entirely new capabilities for people and machines.**

Significance

- The **Hub would help the state Tamil Nadu** in sectors of **solar energy, electronics, electric mobility and textiles.**
- It would also **boost the production sector** by identifying **regional opportunities brought by Fourth Industrial Revolution** in the state.
- The Fourth Industrial Revolution opportunities include **Artificial Intelligence, Internet of Things, Cloud Computing, etc.**

Topic- GS Paper III– Industry
Source- Indian Express

Nobel Prize for Literature 2020

Why in the news?

- The **2020 Nobel Prize for Literature** has been **awarded to American poet Louise Glück.**
- She is the **fourth woman to win the Nobel Literature Prize** in the past decade — after **Olga Tokarczuk, Svetlana Alexievich and Alice Munro** — and only the **16th since the Nobel prizes** were **first awarded in 1901.**

About Louise Glück

- Gluck was honoured "**for her unmistakable poetic voice** that with **austere beauty** makes **individual existence universal**,"
- She is a **professor at Yale University**, Glück made her **debut in 1968 with her collection titled 'Firstborn'.**
- She is seen as **one of the most prominent poet** and **essayist in American contemporary literature.**

Other Achievement

- She also won the **Pulitzer Prize in 1993** for her collection **The Wild Iris.**
- She got **National Book Award** for her latest **collection, Faithful and Virtuous Night, in 2014.**

Topic- GS Paper I–Art and Culture
Source- Indian Express

International Day for Disaster Risk Reduction
Why in the news?

- **International Day for Disaster Risk Reduction** will be observed on **13 October 2020.**

About International Day for Disaster Risk Reduction
Background

- The **International Day for Disaster Risk Reduction** was **started in 1989**, after a call by the **United Nations General Assembly** for a day to **promote a global culture of risk-awareness and disaster reduction**.
- **Held every 13 October**, the day celebrates how people and communities around the world are reducing their exposure to disasters and raising awareness about the importance of reining in the risks that they face.
- **In 2015** at the **Third UN World Conference on Disaster Risk Reduction in Sendai, Japan,** the **international community** was reminded that disasters hit hardest at the **local level with the potential** to cause loss of life and great social and economic upheaval.
- The **Sendai Framework for Disaster Risk Reduction is people-focussed and action-oriented** in its approach to **disaster risk reduction** and applies to the risk of **small-scale and large-scale disasters** caused by **man-made or natural hazards,** as well as related **environmental, technological and biological hazards and risks**.

Topic- GS Paper III– Environment
Source- United Nation

Nobel Prize in Economics 2020
Why in the news?

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

- **Robert Wilson,** awarded this **year's Prize in Economic Sciences**, showed why **rational bidders tend to place bids below their own best estimate** of the common value: they are worried about the winner's curse – that is, **about paying too much and losing out.**
- **Economic Sciences Laureate Paul Milgrom** formulated a **more general theory of auctions** that not **only allows common values**, but also **private values that vary from bidder to bidder.**

What you need to know about the 'Auction theory'?
- The **outcome of an auction (or procurement)** depends on three factors:
  a. The auction's rules, or format
  b. Highest bid
  c. Uncertainty
- Using auction theory, **it is possible to explain how these three factors govern** the **bidders' strategic behaviour** and thus the **auction's outcome.**
- The theory can also **show how to design an auction** to **create as much value as possible.**
- Both tasks are **particularly difficult** when **multiple related objects** are **auctioned off** at the same time.
- **This year's Laureates in Economic Sciences have made auction theory more applicable in practice through the creation of new, bespoke auction formats.**

Note:
- The **Sveriges Riksbank Prize in Economic Sciences** in **Memory of Alfred Nobel** has been **awarded 51 times to 84 Laureates** between **1969 and 2019.**
- In 2019, colleagues and **married couple Esther Duflo and Abhijit Banerjee received** the news that they had been awarded the 2019 Prize in Economic Sciences.
- They **became the fifth couple** to share a prize.

Topic- GS Paper III-Economics
Source- Indian Express

Deendayal Antyodaya Yojana - National Rural Livelihoods Mission

Why in the news?

- The **Union Cabinet** has **approved a Special Package** worth **Rs. 520 crores** in the **UTs of J&K and Ladakh** for a period of **five years till FY 2023-24.**
- This will **ensure sufficient funds** under the **Mission, as per need** to the **UTs and is also in line with Government of India's** aim to **universalize all centrally sponsored beneficiary-oriented schemes** in the UTs of J&K and Ladakh in a time bound manner.

About Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)

- It is a **centrally sponsored programme** that aims at **eliminating rural poverty** through **promotion of multiple livelihoods** for the **rural poor households across the country.**
- The **launch of DAY-NRLM** in June 2011 to **address rural poverty** marks a paradigm shift in **poverty alleviation programmes**.
- **DAY-NRLM** seeks to **reach out to all rural poor households,** estimated at about **10 crore households.**
- The **Mission involves working with the community institutions** through **community professionals** in the **spirit of self-help.**
- This is the unique proposition of **DAY-NRLM** and that is **how it is different from the previous poverty eradication programmes**.
- It is **implemented in a Mission** mode by **special purpose vehicles** (autonomous state societies) with dedicated implementation support units at the national, state, district and block levels, **using professional human resources** in order to **provide continuous and long-term handholding support** to each **rural poor family.**

Background

- DAY-NRLM has been **implemented in the erstwhile state of J&K** by the *Jammu and Kashmir State Rural Livelihoods Mission (JKSRLM)* as "**Umeed**" programme.

 Topic- GS Paper II– Governance
Source- PIB

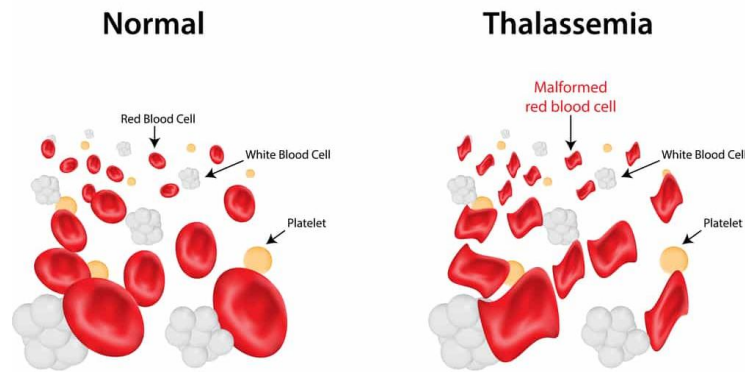## Thalassemia Bal Sewa Yojana

Why in the news?

- Recently, the **Union Minister of Health & Family Welfare** has launched the second phase of **"Thalassemia Bal Sewa Yojana"** for the **underprivileged Thalassemic patients.**

Normal — Thalassemia

About Thalassemia Bal Sewa Yojana

- It is a **Coal India CSR funded Hematopoietic Stem Cell Transplantation (HSCT)** program launched in **2017.**
- It aims to provide a **one-time cure opportunity for Haemoglobinopathies** like **Thalassaemia and Sickle Cell Disease** for patients who have a **matched family donor.**
- The **project will primarily benefit underprivileged** thalassemia patients who have a **matched sibling donor.**

Related Information
About Thalassemia

- The **thalassemias are a group of anemias** that **result from inherited defects in the production of hemoglobin.**
- The thalassemias are among the **most common genetic disorders worldwide**, occurring **more frequently in the Mediterranean region**, the **Indian subcontinent, Southeast Asia, and West Africa.**
- **Ineffective bone marrow erythropoiesis** and **excessive red blood cell hemolysis** together **account for the anemia**.

Types of Thalassemia
Thalassemia minor

- In this the **hemoglobin genes** are inherited **during conception**, one from the **mother and one from the father.**
- **People with a Thalassemia trait** in one gene are known as **carriers or are said to have thalassemia minor.**
- Thalassemia minor is **not a disease** and they **have only mild anemia.**

Thalassemia Intermedia

- These are patients who have **mild to severe symptoms**.

Thalassemia Major

- This is the **most severe form of Thalassemia**.
- This occurs when a **child inherits two mutated genes**, one from each parent.
- **Patients Children with thalassemia major** develop the symptoms of severe anemia within the **first year of life.**
- They **require regular transfusions** to survive or a **bone marrow transplant** and are at a **grave risk of iron overload** and other complications.

About Hematopoietic Stem Cell Transplantation (HSCT)
- The **outcome of Hematopoietic Stem Cell Transplantation (HSCT)** for **thalassemia major** depends on **several factors other than the type of donor**.
- It **was first explored** in **humans in the 1950s** and was based on **observational studies in mice models**.

Topic- GS Paper III–Science and technology
Source- Business Standard

World Economic Outlook Report 2020

Why in the news?
- Recently **International Monetary Fund (IMF)** has released the **World Economic Outlook Report, 2020 titled "A Long and Difficult Ascent"**.
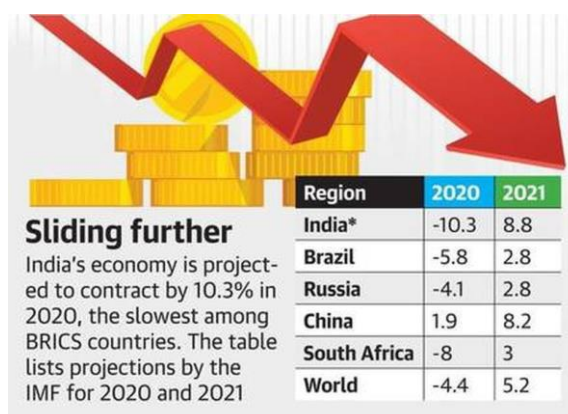
About World Economic Outlook Report
- It is a **survey conducted by the International Monetary Fund** that is usually **published twice a year** in the **months of April and October**.
- It **analyzes and predicts global economic developments** during the near and medium term.
- The **aim of the report** is to **provide analysis and forecasts of economic developments** of member countries and highlights risks and uncertainty.

Highlights of the report
- The **Global growth is projected to be -4.4%** (i.e., a contraction in output of 4.4%) for 2020.

India and the report
- **Indian economy** is expected to grow **at -10.3 % (i.e., a contraction) in 2020.**
- However, **India is expected to rebound** in 2021 **with 8.8% growth— an upgrade of 2.8 percentage points** relative to the June update**.**
- **Consumer prices in India** are expected to grow at **4.9% this year and by 3.7% in the next fiscal.**
- The **current account balance** is projected to **grow by 0.3% this year and -0.9% next year.**

Sliding further

India's economy is projected to contract by 10.3% in 2020, the slowest among BRICS countries. The table lists projections by the IMF for 2020 and 2021

Region	2020	2021
India*	-10.3	8.8
Brazil	-5.8	2.8
Russia	-4.1	2.8
China	1.9	8.2
South Africa	-8	3
World	-4.4	5.2

*India's figures are for fiscal years. All figures in %

About International Monetary Fund
- It was **conceived at a UN conference** in **Bretton Woods in July 1944.**
- **The IMF is headquartered in Washington, US.**

Functions
- It has a **core responsibility of the IMF** is to **provide loans to member countries** experiencing **actual or potential balance of payments problems.**
- Unlike **development banks**, the **IMF does not lend for specific projects**.
- The **SDR is an international reserve asset**, created by the **IMF in 1969** to **supplement its member countries**' official reserves.
- **Gold remains an important asset** in the reserve holdings of several countries, and the **IMF is still one of the world's largest official holders of gold**.

Reports
a. World economic outlook
b. Global Financial stability report

Topic- GS Paper III– Economics
Source- The Hindu

KAPILA' Kalam Program for IP Literacy and Awareness
Why in the news?
- Recently **Union Education Minister** launched the **'KAPILA' Kalam Program for Intellectual Property Literacy and Awareness campaign on the 89th** birth anniversary of former **President Dr. APJ Abdul Kalam**.
- It has also been decided to **celebrate the week of October 15th to 23rd** as **'Intellectual Property Literacy Week'.**

About the KAPILA' Kalam Program
- Under the **'KAPILA' Kalam Program**, students **pursuing education in higher educational institutions** will get **information about the correct system** of the **application process for patenting their invention** and they will be aware of their rights.

Related Information
- The **Institution Innovation Council (IIC 2.0) annual report** was also presented on **89th birth anniversary of former President Dr. APJ Abdul Kalam.**
- The **IIC 3.0 website** was also **launched on the occasion.**

About Institution Innovation Council
- The **Institution's Innovation Council (IIC) program** was launched under **Innovation cell of Ministry of Education** in **New Delhi in 2018**.

Objective
- The **purpose of formation of network of Institution's Innovation Councils (IICs)** is to **encourage, inspire and nurture young students** by exposing them to **new ideas and processes** resulting in **innovative activities in their formative years.**
- The **successful implementation of this program** will lead to a **good rank in global innovation ranking** in **next 2-3 years.**

Topic- GS Paper III– Education
Source- PIB

Leather Sector Skill Council launches SCALE India Android App
Why in the news?
- The **Leather Sector Skill Council (LSSC)** recently announced the **launch of the Skill Certification Assessment for Leather Employees (SCALE) India** android app.

About the SCALE India Android App
- The **platform caters** to the **need of all the stakeholders** of the skilling and employment ecosystem namely – candidate/trainee, employer, employee, assessor, and trainer - all at one place.
- The **services are accessible** through the **web and android application** that virtually works on any smart handheld device, desktop/laptop, smartphones, tablets, or phablets.

- The **application will be providing end to end quality assurance** across training, assessment, and certification services,
- It will also **help employers engage** with other stakeholders seamlessly and provide a marketplace for human capital for the leather industry.

- **SCALE** will help candidates in the skilling ecosystem to get assessed and certified on their knowledge, skills, and behavior on a specific qualification pack.
- The **App also enables access** to **micro-learning modules** for **bridging the skill gaps** that are identified and can be re-assessed and certified at the end of the learning on the specific qualification pack.
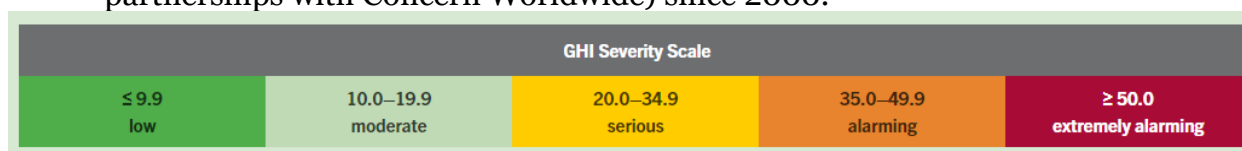
Topic- GS Paper III– Skill Development
Source- PIB

Global Hunger Index, 2020
Why in the news?
- The 15th Global Hunger Index (GHI) 2020 was released recently by Welthungerhilfe and Concern Worldwide.
- The GHI has been brought out almost every year by Welthungerhilfe (lately in partnerships with Concern Worldwide) since 2000.

GHI Severity Scale				
≤ 9.9 low	10.0–19.9 moderate	20.0–34.9 serious	35.0–49.9 alarming	≥ 50.0 extremely alarming

How are Countries ranked?
- The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
- GHI scores are based on the values of four component indicators:
    a. **Undernourishment** (share of the population with insufficient caloric intake)
    b. **Child wasting** (share of children under age five who have low weight for their height, reflecting acute undernutrition)
    c. **Child stunting** (share of children under age five who have low height for their age, reflecting chronic undernutrition)
    d. **Child mortality** (mortality rate of children under age five, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments).
- Based on the values of the four indicators, the GHI determines hunger on a **100-point scale where 0 is the best possible score (no hunger) and 100 is the worst.**
- Each country's GHI score is classified by severity, from low to extremely alarming.
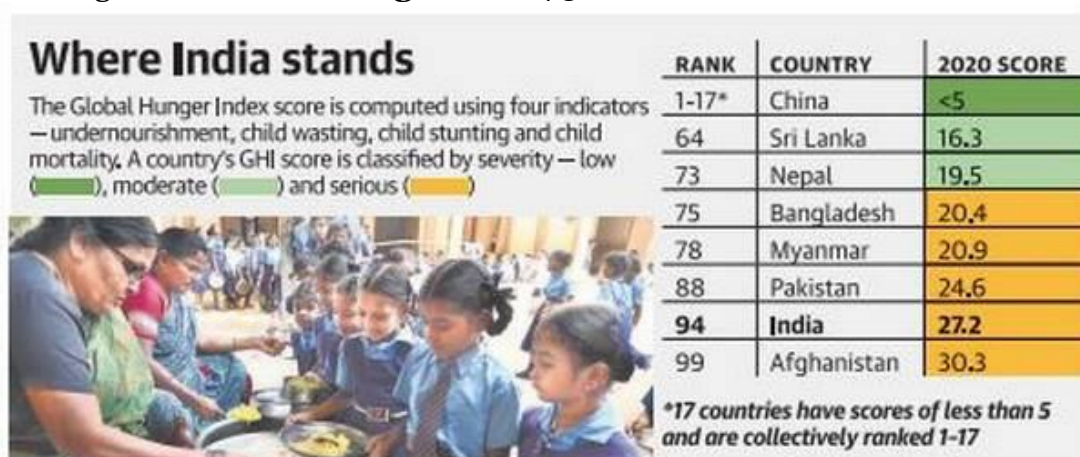
Key findings
At the Global level
- According to the **2020 Global Hunger Index**, **Worldwide hunger** is at a moderate level.
- **Africa South of the Sahara and South Asia** has the **highest hunger and undernutrition levels** among world regions, **with 2020 GHI scores of 27.8 and 26.0, respectively—both considered serious.**
- According to **2020 GHI scores, 3 countries** have alarming levels of hunger - **Chad, Timor-Leste, and Madagascar.**

- Hunger is also considered to be **alarming in 8 countries** - Burundi, Central African Republic, Comoros, the Democratic Republic of the Congo, Somalia, South Sudan, Syria, and Yemen - **based on provisional categorizations.**
- **The world is not on track to achieve the second Sustainable Development Goal - known as Zero Hunger for short - by 2030**.
- At the current pace, approximately 37 countries will fail even to reach low hunger, as defined by the GHI Severity Scale, by 2030.

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**, lower than her neighbours such as **Bangladesh (75)** and **Pakistan (88).**

Where India stands

The Global Hunger Index score is computed using four indicators — undernourishment, child wasting, child stunting and child mortality. A country's GHI score is classified by severity — low ( ), moderate ( ) and serious ( )

RANK	COUNTRY	2020 SCORE
1-17*	China	<5
64	Sri Lanka	16.3
73	Nepal	19.5
75	Bangladesh	20.4
78	Myanmar	20.9
88	Pakistan	24.6
94	India	27.2
99	Afghanistan	30.3

*17 countries have scores of less than 5 and are collectively ranked 1-17

- In **2019 Indian ranked 102 Global Hunger Index**
- The report put **India under serious 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 III- Important Index
Source- The Hindu

International Day for the Eradication of Poverty
Why in the news?

- International Day for the Eradication of Poverty 2020 is being **observed on 17 October.**

About International Day for the Eradication of Poverty

- The **International Day for the Eradication of Poverty** is an **international observance celebrated** each year on **October 17** throughout the world.
- The theme for the Day this year is **"Acting together to achieve social and environmental justice for all."**
- In its **resolution 72/233**, the **General Assembly** proclaimed the **Third United Nations Decade** for the **Eradication of Poverty (2018–2027).** Persons living in poverty experience many **interrelated and mutually**

reinforcing deprivations that prevent them from **realizing their rights** and **perpetuate their poverty**, including:
- o dangerous work conditions
- o unsafe housing
- o lack of nutritious food
- o unequal access to justice
- o lack of political power
- o limited access to health care

Background
- The **first commemoration of the event** took place in **Paris, France in 1987** when **100,000 people gathered** to honour victims of poverty and fear at the **unveiling of a commemorative stone** by **Joseph Wresinski**, founder of the **International Movement ATD Fourth World.**
- In **1992, four years** after **Wresinski's death**, the **United Nations** officially designated **October 17** as the **International Day for the Eradication of Poverty.**

Related Information
Government Initiative for Eradicating Poverty
- **Policies adopted** in and **after 1991** has helped in **achieving Higher Economic Growth**, which thus has **helped in reducing poverty.**
- **Various Programs** have been **launched continuously**, like **Employment Generation Program, Income Support, Employment Guarantee (like MGNREGA)** to eradicate poverty.
- Schemes for providing **utilities like housing, electricity** etc. to people to ease the **financial expenditure** of the **poor households**.
- **Pradhan Mantri Awas Yojana and Housing for All** by **2022 Scheme** to provide housing to the **rural and urban poor** is an example.

Schemes for Empowering People
- **Indian Government's latest schemes** like **Start-Up India and Stand Up India** are about **empowering people** i.e. **making people, self – sufficient,** to earn their livelihood.

Note:
- **Sustainable Development Goal 1 deals** with **End poverty** in all its forms everywhere

Topic- GS Paper III–Poverty
Source- United Nation

'Mission Shakti campaign
Why in the news?
- Recently the **Uttar Pradesh government** has launched a **6-month long** women empowerment campaign **'Mission Shakti'** to **raise awareness and tackle crime against women** in the state.
- The campaign was kicked off by Chief Minister from Devi Paatan Shakti Peeth (देवीपाटन शक्ति पीठ) in Balrampur.

About 'Mission Shakti campaign
- Under Mission Shakti, different awareness and training programs will be conducted regarding various schemes for the protection, respect and self-reliance of women and girls.

- Women nodal officers have been appointed by the government in all the districts for the execution and monitoring of the campaign.
- All efforts will be made that women are not afraid of coming out of their homes.
- Various competitive and cultural programmes on women empowerment awareness will also be connected during the campaign.

Topic- GS Paper II– Women Empowerment
Source- AIR

Global Tuberculosis Report 2020
Why in the news?
- According to **Global Tuberculosis Report 2020,** the **COVID-19 pandemic,** combined with impacts on **care-seeking behaviour**, threatens to **reverse the recent progress** in reducing the **global burden of tuberculosis (TB) disease.**

Key Highlights of the Report
- The evidence from **several high TB burden countries** of **large reductions in the monthly number of people** with **TB being detected** and officially **reported in 2020 is available**.
- **India** accounts for **26% of TB cases** in the **world and the TB notifications** during the **period January-June 2020** in **India fell by 25% compared** to the same **period in 2019.**
- The **TB notifications in India in February 2020** increased **compared with January** but then **reduced sharply in April** to reach less than **40% of the January figure** before increasing to reach about **75% of January figure in the month of June.**

- The **dip in TB notifications** has not been **very sharp in India** and the **recovery after the dip** has been more in **India than Indonesia, Philippines, and South Africa.**
- In **India**, **notifications of people newly diagnosed with TB increased 74%** from **1.2 million to 2.2 million** between **2013 and 2019.**

About Global Tuberculosis Report

- The **World Health Organization (WHO)** has published a **global TB report every year since 1997.**
- The **purpose of the report** is to provide a **comprehensive and up-to-date assessment** of the status of the **Tuberculosis epidemic.**
- The **report is based primarily** on data **gathered by World Health Organization (WHO)** in annual rounds of data collection.

Global targets

- In **2014 and 2015**, all **Member States of WHO and the UN adopted** the **UN Sustainable Development Goals (SDGs)** and **WHO's End TB Strategy**.
- **TB is included under Goal 3 Target 3.3** of the **SDGs which aims** to "end the **epidemics of AIDS**, **tuberculosis**, **malaria** and **neglected tropical diseases"** by the year 2030.
- The **WHO End TB Strategy** aims for a **90 per cent reduction in TB deaths** and an **80 per cent reduction in the TB** incidence **rate by 2030**, compared to the **2015 baseline.**
- **Milestones for 2020** include a **20% reduction in the TB incidence** rate and a **35% reduction in TB deaths.**

India and Tuberculosis

- **India** is **committed to eliminating tuberculosis** from the **country by 2025, five years** ahead of the global target by the **World Health Organization (WHO) i.e. 2030.**

Initiatives by India

National Tuberculosis Elimination Programme

- To align with the **ambitious goal**, the Programme has been renamed from the **Revised National Tuberculosis Control Programme (RNTCP)** to **National Tuberculosis Elimination Programme (NTEP).**

The Nikshay Ecosystem

- It is the **National TB information system** which is a **one-stop solution to manage information of patients and monitor program activity** and performance throughout the country.

Nikshay Poshan Yojana (NPY)

- This **scheme is aimed at providing financial support to TB patients** for their **nutrition.**

TB Harega Desh Jeetega Campaign

- It has been **launched In September 2019** it is showcasing the **highest level of commitment for the elimination of TB.**

The Saksham Project

- It is a project of the **Tata Institute of Social Sciences (TISS)** that has been providing **psycho-social counselling to DR-TB patients.**

About Tuberculosis
- It is caused by **bacteria (Mycobacterium tuberculosis)** that most often affect the lungs.

Transmission
- It is spread from **person to person** through the air.
- When people with **TB cough, sneeze, or spit**, they propel the **TB germs into the air.**

Symptoms
- **Cough with sputum** and blood at times, chest pains, weakness, weight loss, fever, and night sweats.
- **Tuberculosis notifications in 2020** down by **25% in India**, global report says

Topic- GS Paper III– Health
Source- Indian Express

Sixth India International Science Festival
Why in the news?
- The 6th edition of **India International Science Festival (IISF) 2020** will be held from **22nd to 25th December 2020** at virtual platform.

About India International Science Festival
- The first and second **IISF were held in New Delhi**, the third in Chennai, the fourth in Lucknow, and the **fifth IISF** was held in **Kolkata.**
- It is an annual event organized jointly by **science & technology-related Ministries and Departments of the Government of India** and **Vijnana Bharati (Vibha).**
- It is a **festival to celebrate the achievements of India's scientific and technological advancements** with students, innovators, craftsmen, farmers, scientists, and technocrats from India and abroad.

Topic- GS Paper III–Science and Technology
(although a miscellaneous topic)
Source- PIB

**Anemia Mukt Bharat Index**
Why in the news?
- Recently **Haryana State** has **topped the Anemia Mukt Bharat (AMB) Index** among **29 states** in the country.

Highlights of Anemia Mukt Bharat (AMB) Index
- **Haryana** was **ranked at the top slot** with **an AMB Index of 46.7 among the 29 states.**
- Haryana is one of **11 states in the country that have achieved National Health Policy targets well before 2020.**
- The institutional deliveries have increased **to 93.7 per cent and it was possible due to 24-hours delivery facilities in the state.**

About Anemia Mukt Bharat
- It is an initiative of the **Ministry of Health and Family Welfare and UNICEF.**
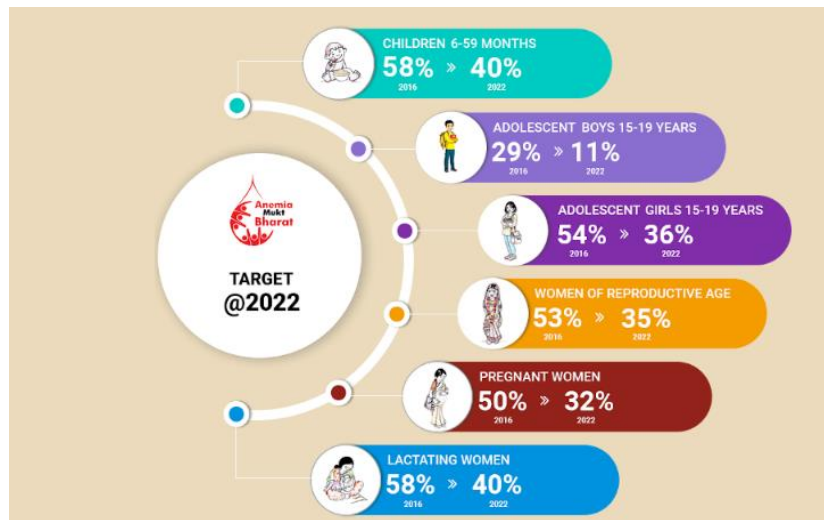
Aim

- It has been launched to **reduce the prevalence of Anemia** all over India.
- It also **aims to provide preventive and curative mechanisms** through a **6x6x6 strategy** including **six target beneficiaries**, **six interventions** and **six institutional mechanisms**, for all stakeholders to implement the strategy

Target Beneficiaries

- The target beneficiaries are **Children (6-59 months), Children (5-9 years), Adolescent Girls & Boys of 10-19 years**, **Women of Reproductive Age (15-49 years), Pregnant Women** and **Lactating Mothers**.

Six Target Interventions

1. Prophylactic Iron and Folic Acid supplementation
2. Deworming
3. Intensified year-round Behaviour Change Communication Campaign (Solid Body, Smart Mind) including ensuring delayed cord clamping in newborns
4. Testing of anemia using digital methods and point of care treatment
5. Mandatory provision of Iron and Folic Acid fortified foods in government-funded health programmes
6. Addressing non-nutritional causes of anemia in endemic pockets, with special focus on malaria, haemoglobinopathies and fluorosis

About Anaemia

- Anemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet the body's physiological requirements, which vary by age, sex, altitude, smoking habits, and during pregnancy.
- The manifestations of anemia vary by its severity and range from fatigue, weakness, dizziness and drowsiness to impaired cognitive development of children and increased morbidity.

Effects in Pregnant Women

- Anemia in pregnancy is associated with post-partum haemorrhage, neural tube defects, low birth weight, premature births, stillbirths and maternal

deaths. In malaria endemic regions, anemia is one of the most common preventable causes of maternal and child deaths.

- In its most severe form, anemia can also lead to death.

Topic- GS Paper III– Health Issue
Source- AIR

Kisan Suryodaya Yojana

Why in the news?

- Recently, the **Prime Minister** has announced the **'Kisan Suryodaya Yojana'** along with other key **projects in Gujarat**.

About Kisan Suryodaya Yojana

- It is an initiative for the **farmers of the Gujarat** to **provide day-time power supply for irrigation.**

- Under this scheme, **farmers will be able to avail power** supply from **5 AM to 9 PM.**
- The state government has **allocated a budget of Rs.3500 crore** for installing **transmission infrastructure** under the **scheme by 2023.**
- **Dahod, Patan, Mahisagar, Panchmahal, Chhota Udepur, Kheda, Tapi, Valsad, Anand** and **Gir-Somnath** have been included under the **Scheme for 2020-21.**
- The **remaining districts** will be covered in a **phase-wise manner** by **2022-23.**

Topic- GS Paper II– Important Scheme
Source- PIB

India–Australia Circular Economy Hackathon (I-ACE)

Why in the news?

- Recently, the **NITI Aayog** has **launched the India–Australia Circular Economy Hackathon (I-ACE).**

About India–Australia Circular Economy Hackathon (I-ACE)

- It is a joint initiative of **AIM (Atal Innovation Mission)** and **Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO)**.
- The **idea of I-ACE** was conceived during a **virtual summit between the Indian and Australian prime ministers**, exploring innovative ways to boost circular economy in **India and Australia**.
- It will **focus on identification** and **development of innovative technology solutions** by **bright-minded students**, **startups and MSMEs of both nations**.

The four key themes for the hackathon are as follows:

- Innovation in packaging reducing packaging waste
- Innovation in food supply chains avoiding waste
- Creating opportunities for plastic waste reduction
- Recycling critical energy metals and e-waste

Related Information

About Atal Innovation Mission

- It is **government of India's flagship initiative** to **promote a culture of innovation** and **entrepreneurship in the country**.

Objectives

- Its **objective is to develop new programmes** and **policies for fostering innovation** in **different sectors of the economy**, provide platform and collaboration opportunities for different stakeholders create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

Major Initiatives under AIM

- **Atal Tinkering Labs**: Creating problem solving mindset across schools in India.
- **Atal Incubation Centers**: Fostering world class startups and adding a new dimension to the incubator model.
- **Mentor India Campaign**: A national mentor network in collaboration with the public sector, corporates, and institutions, to support all the initiatives of the mission.

- **Atal Community Innovation Center**: To stimulate community centric innovation and ideas in the unserved /underserved regions of the country including Tier 2 and Tier 3 cities.
- **Atal New India Challenges**: Fostering product innovations and aligning them to the needs of various sectors/ministries.
- **Atal Research and Innovation for Small Enterprises (ARISE):** To stimulate innovation and research in the MSME industry.

Topic- GS Paper III–Economics
Source-The Hindu

PLI Schemes for drugs & medical devices

Why in the news?
- **Chemicals and Fertilizers Ministry** has recently **revised the Production Linked Incentive Schemes** for promoting **domestic manufacturing of bulk drugs and medical devices.**

More about the revised guidelines
- In the revised guidelines, the **minimum threshold investment requirement** has been replaced by **committed investment** considering **availability of technology choices** which varies from product to product.
- The change has been made to **encourage efficient use of productive capital.**

Change in eligibility Criteria
- There is also **change in the eligibility criteria of minimum sales** threshold in line with **projected demand**, **technology trend** and **market development,** for the **purpose of availing incentive** under the scheme.

Tenure
- The **tenure of the scheme** has been extended by one year keeping in view the **capital expenditure expected** to be **done by the selected applicants in FY 2021-22.**
- Accordingly, the **sales for the purpose of availing incentives** will be **accounted for 5 years** starting from **FY 2022-2023 instead of FY 2021-2022.**

Background
- The **PLI schemes** were **approved by the Cabinet** on **March 20, 2020,** and **detailed guidelines for the implementation of the schemes** were issued by the **Department of Pharmaceuticals on July 27, 2020.**
- The Department of Pharmaceuticals earlier come out with the **two Production Linked Incentive schemes:**

     a. **Production Linked Incentive scheme** for **promotion of domestic manufacturing of critical Key Starting Materials, Drug Intermediates** and **Active Pharmaceutical Ingredients in India.**

     b. Production Linked Incentive Scheme for Promoting Domestic Manufacturing of Medical Devices.

- After approval of Cabinet, **detailed guidelines for the implementation of the schemes** were issued by the **Department of Pharmaceuticals in July this year.**

Note:

- Globally, the **Indian pharmaceutical industry** is the **third largest in terms of volume** and **contributes significantly to India's economic growth** and **export earnings.**

Topic- GS-III–Health Sector
Source-PIB

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