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## Schemes

### 1) SVAMITVA

#### About the scheme

- SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme is a collaborative effort of the **Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India**.
- It is a **central sector scheme** that aims to provide rural people with the **right to document their residential properties** so that they can use their property for economic purposes.
- The scheme is for surveying the land parcels in rural inhabited areas using **Drone technology**.

#### Objectives

- The outcome from the scheme would include updating the record of rights in the revenue/property registers and issuance of property cards to the property owners. This would facilitate **monetisation of rural residential assets** for credit and other financial services.
- It will also lead to creation of **accurate land records** for rural planning and determination of **property tax**.
- Through the SVAMITVA scheme, the government hopes that **property disputes and legal cases will be reduced**.
- Gram panchayats and community assets like village roads, ponds, canals, open spaces, school, anganwadi, health sub-centres etc will also be surveyed and **GIS maps will be created**. These maps can be used to prepare **better quality gram panchayat development plans**.

#### Coverage

- There are about 6.62 lakh villages in the country which will be eventually covered in this scheme. The entire work is likely to be spread over a period of four years (2020 -2024).

- Presently, the **pilot phase** is being approved for the year 2020-21. Pilot Phase will extend to **8 states** – Maharashtra, Karnataka, Haryana, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Punjab and Rajasthan.
- The **Ministry of Panchayati Raj (MoPR)** is the Nodal Ministry for implementation of the scheme. **Survey of India** shall work as the technology partner for implementation.

#### Why in News?

- Prime Minister Narendra Modi launched the distribution of property cards under the SVAMITVA scheme.

#### About Survey of India

- The **National Survey and Mapping Organization**, also known as the Survey of India, is the oldest scientific department of the Government of India.
- Set up in 1767, it is under the **Department of Science & Technology**.
- As the nation's **Principal Mapping Agency**, Survey of India ensures that the country's domain is explored and mapped suitably, provides base maps for expeditious and integrated development and ensures that all resources contribute with their full measure to the progress, prosperity and security of the country.

### 2) PRASHAD Scheme

#### About the scheme

- The 'National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive' (PRASHAD) was launched by the **Ministry of Tourism** in the year 2014-15 with the objective of **integrated development of identified pilgrimage and heritage destinations**.
- The scheme aimed at **infrastructure development** such as entry points (Road, Rail and Water Transport), last

mile connectivity, basic tourism facilities like Information/ Interpretation Centers, ATM/ Money exchange, eco-friendly modes of transport, area Lighting and illumination with renewable sources of energy, parking, drinking water, toilets, etc.

### Objectives

- **Rejuvenation and spiritual augmentation** of important national/global pilgrimage destinations;
- **Enhance tourism attractiveness** of identified pilgrimage destinations and heritage cities under integrated tourism development of heritage city in planned, prioritized and sustainable manner by providing world class tourism projects in them;
- Follow community-based development through **'Pro-Poor' tourism concept and 'responsible tourism' initiatives**;
- Assure active involvement of local communities through **employment generation**;
- **Creating awareness** among the local communities about the importance of tourism for them in terms of increase in sources of income, improved living standards and overall development of the area;
- **Promote heritage** in the form of heritage structures especially under integrated tourism development of heritage city, local arts, culture, handicrafts, cuisine, etc., to generate livelihood in the identified places;
- Strengthen the mechanism for **bridging the infrastructural gaps** at identified pilgrimage destinations and throughout heritage cities.

### Implementation Agency

- The projects identified under this scheme shall be implemented through the identified agencies by the **respective State/ Union Territory Government**.

### Why in News?

- Union Minister of State for Tourism & Culture inaugurated the "Tourist Facilitation Centre" facility at Guruvayur, Kerala, constructed under PRASHAD Scheme.

### Similar Initiatives

#### Swadesh Darshan scheme

- It is one among the flagship schemes of the **Ministry of Tourism** for **integrated development of theme based tourist circuits** in the country.
- Tourist Circuit is defined as a route having at least three major tourist destinations which are distinct and apart.
- Launched in 2014-15, the Scheme is **100% centrally funded** and efforts are made to achieve convergence with other schemes of Central and State Governments and also to leverage the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and Corporate Sector.
- Projects under the scheme shall be under the following identified themes; **Eco-tourism, Wildlife, Buddhist, Desert, Spiritual, Ramayana, Krishna, Coastal, Northeast, Rural, Himalayan, Tribal and Heritage**.

### 3) Unnat Bharat Abhiyan

#### About the scheme

- Unnat Bharat Abhiyan (UBA) is inspired by the vision of **transformational change in rural development processes by leveraging knowledge institutions** to help build the architecture of an Inclusive India.
- The program was formally launched by the **Ministry of Education (MoE)** (formerly Ministry Human Resource Development) in 2014.
- The Participating Institute will **adopt at least five villages** in consultation with the District Collectors for the development activities under the UBA.

#### Objectives of UBA

- The main objectives of Unnat Bharat Abhiyan are as under:
  1. To engage the faculty and students of Higher Educational Institutions (HEIs) in identifying development issues in rural areas and finding sustainable solutions for the same.
  2. Identify & select existing innovative technologies, enable customisation of technologies, or devise implementation methods for innovative solutions, as required by the people.
  3. To allow HEIs to contribute to devising systems for smooth implementation of various Government programmes.

#### UBA 2.0

- Unnat Bharat Abhiyan 2.0 is the upgraded version of Unnat Bharat Abhiyan 1.0. It was launched in 2018.
- The scheme is **extended to all educational institutes**; however under Unnat Bharat Abhiyan 2.0, participating institutes are selected based on the fulfillment of certain criteria.
- As of March 2020, under the scheme UBA, 13072 villages have been adopted by 2474 Institutes.

#### Interventions

- The technological interventions under the UBA cover different subjects broadly categorized like in the area of sustainable agriculture; water resource management; artisans, industries and livelihood; basic amenities (infrastructure & services) and rural energy system.
- Some technological interventions done under scheme UBA are; i) Safe Drinking Water by NIT Manipur and IIT Jodhpur; ii) Agriculture drone system by Santhiram Engineering College, Nandyal (A.P); iii) Improved Pottery Kiln in Farrukhnagar cluster by IIT Delhi, etc.

#### Why in News?

- Union Education Minister Ramesh Pokhriyal Nishank held a review meeting regarding the progress of Unnat Bharat Abhiyan Scheme.

## 4) MGNREGA

### About the scheme

- The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme is the largest social security scheme in the world — guaranteeing **100 days of work** each financial year to **any rural household** willing to do public work-related unskilled manual work at the statutory minimum wage.
- The act makes it **obligatory** for the State to give rural households work on demand. In case such employment is not provided within 15 days of registration, the applicant becomes eligible for an **unemployment allowance**.
- The **Ministry of Rural Development (MRD)** is monitoring the entire implementation of this scheme in association with state governments.

### Key Features

- **One-third** of the stipulated workforce must be women.
- **Work site facilities** such as creche, drinking water and shade have to be provided.
- The employment will be provided **within a radius of 5 km**: if it is above 5 km extra wage will be paid.
- The wages are revised according to the **Consumer Price Index-Agricultural Labourers (CPI-AL)**.
- A **60:40 wage and material ratio** has to be maintained.
- Permissible works predominantly include water and soil conservation, afforestation and land development works.
- **Work site facilities** such as crèche, drinking water, shade have to be provided.

- **Gram sabhas** must recommend the works that are to be undertaken and at least 50% of the works must be executed by them.
- **Social Audit** has to be done by the Gram Sabha.

### Why in News?

- LibTech India, a Non-Governmental Organization, released its study on the difficulties faced by workers dependent on the MGNREGS.
- The study, based on a 2018-19 survey of almost 2,000 workers in Jharkhand, Andhra Pradesh and Rajasthan, was sponsored by a research grant from Azim Premji University.

### Highlights of the study

#### Additional burdens

- Many of the rural workers dependent on the MGNREGS are **forced to make multiple trips to the bank**, adding travel costs and income losses, and face repeated rejections of payment, biometric errors and wrong information, just to get their hands on their wages.
- Even in regular times, these last mile challenges make it hard for workers to access their own wages in a timely manner. During the **COVID-19 pandemic**, the situation is exacerbated as transport becomes harder, and there is no question of physical distancing at a rural bank.

#### Lack of financial inclusion

- The study found that **only one in 10 workers get an SMS message that their wages have been credited**. A third of workers must visit the bank branch just to find out whether their wages have been credited.
- Another quarter of respondents said despite being informed that their wages had been credited, they found that the money was not in the accounts.

#### Biometric authentication failures

- **Customer service points and banking correspondents** were meant

to reduce the gap between workers and banks and bring service delivery to the doorstep.

- However, **40% of workers reported facing biometric authentication failures** at least once in their last five transactions at such agencies, and 7% reported that all five of their last transactions had failed due to biometric authentication issues.

#### Technical glitches

- Almost 13% of workers had rejected payments, which are transactions that are stuck due to technical errors of the payment system, bank account problems or data entry errors. About 77% of them had no idea why their payments had been rejected, which means that rectification is not possible and all future MGNREGS payments to these individuals will also be rejected.
- Government data show that about ₹4,639 crore worth of payments were rejected in the last five years, and about ₹1,236 crore is still pending to be paid to workers.

## 5) Prime Minister's Employment Generation Programme

### About PMEGP

- Prime Minister's Employment Generation Programme (PMEGP) is a central sector scheme administered by the **Ministry of Micro, Small and Medium Enterprises** since 2008-09.
- It is a major **credit-linked subsidy programme** aimed at **assisting first generation entrepreneurs for setting up micro enterprises** in the **non-farm sector** by helping traditional artisans and unemployed youth.
- At the national level, the Scheme is being implemented by **Khadi and Village Industries Commission (KVIC)**, a statutory organization under the administrative control of the Ministry of MSME, as the single nodal agency.

- At the State level, the Scheme will be implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks.
- Under the scheme, loans are being provided by all Public Sector Banks, selected Private Sector Banks and Co-operative Banks with **margin money subsidy** (refers to the amount that the government contributes to beneficiaries availing PMEGP loan) being given by the Ministry of MSME through KVIC.

### Scope

- The scheme is applicable to all viable projects in **rural as well as urban areas**, under the Micro enterprises sector.
- The maximum cost of the project admissible under the manufacturing sector is **Rs.25 lakhs** and the

business/services sector is **Rs.10 lakhs**.

- **Only one person from a family** is eligible for obtaining financial assistance under the scheme.
- Assistance under the Scheme is available **only for new projects**.

### Eligible Entrepreneurs / Borrowers

- Any individual, above 18 years of age
- The beneficiaries should have passed at least VIII standard, for setting up of project costing above Rs.10 lacs in the Manufacturing Sector and above Rs. 5 lacs in the business /Service Sector,
- Self Help Groups
- Institutions registered under Societies Registration Act, 1860
- Production Co-operative Societies
- Charitable Trusts

### Why in News?

- The Ministry of Micro, Small and Medium Enterprises conducted a nationwide review of PMEGP.

Categories of beneficiaries under PMEGP	Beneficiary's own contribution (of project cost)	Rate of Subsidy	
		Urban	Rural
General Category	10%	15%	25%
Special Category (including SC/ST/OBC /Minorities/ Women, Ex-Servicemen, Physically handicapped, NER, Hill, and Border areas etc)	5%	25%	35%

## Initiatives

### 1) Fortified rice

#### About ICDS

- Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme represents one of the world's largest and unique programmes for early childhood care and development.
- It is implemented by the **Ministry of Women and Child Development**.

#### Beneficiaries

- The scheme is targeted at
  - **Children upto the age of 6 years,**
  - **Pregnant and lactating mothers and**
  - **Women 16–44 years of age.**
- The scheme is aimed to improve the **health, nutrition and education** of the target community.

#### Services under ICDS

- The ICDS Scheme offers a package of **six services**, viz.
  1. Supplementary Nutrition
  2. Pre-school non-formal education
  3. Nutrition & health education
  4. Immunization
  5. Health check-up and
  6. Referral services

#### Provision for Take-Home Ration

- An important component of ICDS is the **Supplementary Nutrition Programme (SNP)**.
- It aims to fill the gap in nutrition in children under six as well as pregnant and lactating women. The SNP's target is to provide **hot cooked meals to children 3-6 years** who come to the centre daily for preschool classes and **micronutrient-fortified and energy-dense food for children 6-36 months and pregnant and lactating women**.
- This food is distributed once a month for the mother to take home and use and hence the term **Take-Home Ration (THR)**. The programme stipulates that THR should meet 50%

of the daily recommended dietary allowance per beneficiary.

#### Mid-Day Meal Scheme

- The Mid-Day Meal Scheme (MDMS) is considered as the world's largest school meal programme and reaches an estimated 12 crore children across 12 lakh schools in India.
- In 1925, a Mid-Day Meal Programme was first introduced for disadvantaged children in **Madras Municipal Corporation**. At National level, the MDMS emerged out of the **National Programme of Nutritional Support to Primary Education (NP-NSPE)**, a centrally sponsored scheme formulated in 1995 to improve enrollment, attendance and retention by providing free food grains to government run primary schools.
- In 2002, the **Supreme Court** directed the government to provide cooked mid-day meals in all government and government aided primary schools.

#### Objectives of the programme

- The key objectives of the MDMS are to
  - address the issues of hunger and education in schools by serving hot cooked meals;
  - improve the nutritional status of children
  - improve enrollment, attendance and retention rates in schools and other education centres
  - improve socialisation among castes
  - empower women through employment

#### Key aspects of the scheme

- MDMS guarantees **one meal to all children studying in Government, Local Body and Government-aided primary and upper primary schools and the Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) centres including Madarsa and Maqtabas supported under under Samagra**

Shiksha Abhiyan (an overarching programme of the Ministry of Human Resource Development), and National Child Labour Project schools run by the ministry of labour.

- The **calorific value** of a mid-day meal at upper primary stage has been fixed at a minimum of 700 calories and 20 grams of protein by providing 150 grams of food grains (rice/wheat) per child/school day.
- The cost of the MDMS is **shared between the central and state governments**. The central government provides free food grains to the states. The cost of cooking, infrastructure development, transportation of food grains and payment of honorarium to cooks and helpers is shared by the centre with the state governments.
- Students up to Class VIII are guaranteed one nutritional meal at least 200 days in a year. Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka and Puducherry have even extended the scheme to Class IX and X.
- The Scheme comes under the **Ministry of Education**.

#### Why in News?

- In a bid to combat chronic anaemia and undernutrition, the government is making plans to **distribute fortified rice through the Integrated Child Development Services and Mid-Day Meal schemes** across the country from next year, with a special focus on aspirational districts.
- Fortifying rice involves grinding broken rice into powder, mixing it with nutrients, and then shaping it into rice-like kernels using an extrusion process. These fortified kernels are then mixed with normal rice in a 1:100 ratio, and distributed for consumption.

#### What is Fortification of Food?

- Fortification is the **addition of key vitamins and minerals** such as iron,

iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content. These nutrients may or may not have been originally present in the food before processing.

#### Why do we need Fortification of Food?

- 70% of people in India do not consume enough micronutrients such as vitamins and minerals.
- According to the **National Family Health Survey (NFHS-4) 2015-16**:
  - 58.4 percent of children (6-59 months) are anaemic
  - 53.1 percent women in the reproductive age group are anaemic
  - 35.7 percent of children under 5 are underweight
- Thus, deficiency of micronutrients or micronutrient malnutrition, also known as **“hidden hunger”**, is a serious health risk.
- Fortification method complements other ways to improve nutrition such as diversification of diet and supplementation of food.

#### What are the benefits of Fortification?

- Since the nutrients are added to staple foods that are widely consumed, this is an excellent method to improve the health of a large section of the population, all at once.
- Fortification is a safe method of improving nutrition among people. The addition of micronutrients to food **does not pose a health risk to people**. The quantity added is so small and so well regulated as per prescribed standards that likelihood of an overdose of nutrients is unlikely.
- It **does not require any changes in food habits and patterns of people**. It is a socio-culturally acceptable way to deliver nutrients to people.
- It **does not alter the characteristics of the food**—the taste, the feel, the look.

- It can be **implemented quickly** as well as show results in improvement of health in a relatively short period of time.
- This method is **cost-effective** especially if advantage is taken of the existing technology and delivery platforms. The **Copenhagen Consensus** (a US non-profit think tank) estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy.

#### Food Fortification in India

- In October 2016, **FSSAI** operationalized the **Food Safety and Standards (Fortification of Foods) Regulations, 2016** for fortifying staples namely
  - **Wheat Flour** and **Rice** with **Iron, Vitamin B12** and **Folic Acid**,
  - **Milk** and **Edible Oil** with **Vitamins A** and **D** and
  - **Double Fortified Salt** with **Iodine** and **Iron**
- The **'+F' logo** has been notified to identify fortified foods.

## 2) National Digital Health Mission

### What is the NDHM?

- Prime Minister Narendra Modi in his 2020 Independence Day speech announced a major digital initiative in the form of National Digital Health Mission (NDHM).
- The project will provide a **health ID to every person in the country**, and benefit the poor.

### NDHM in Detail

- NDHM seeks to **provide efficient and affordable health coverage through a wide-range of data and infrastructure services**.
- The key feature of this mission is the **technology part** - it will leverage open digital systems to provide high-quality healthcare for all. It will **integrate various digital health services** to create an ecosystem which can

assimilate existing health information systems.

- The government has said that it **will ensure security and privacy of personal information**.

### What is a health ID?

- Under NDHM, Indian citizens will get a **digital health ID** which is basically a **digital format of all his/her health records** which will be linked to the registry of doctors and health facilities across the country.
- The government has said that enrollment in the initiative will be **voluntary**.
- The health ID will contain information about medical data, prescriptions and diagnostic reports and summaries of previous discharge from hospitals for ailments. The mission is expected to bring **efficiency and transparency** in healthcare services in the country.

### Expected Benefits

- The NDHM aims to liberate citizens from the challenges of finding the right doctors, seeking appointment with them, payment of consultation fee, making several rounds of hospitals for prescription sheets and will empower all Indians with the correct information and sources enabling them to take an informed decision to avail the best possible healthcare.
- The NDHM comprises **six key building blocks or digital systems** - HealthID, DigiDoctor, Health Facility Registry, Personal Health Records, e-Pharmacy and Telemedicine - that will enable access to timely, safe and affordable healthcare through a 'citizen-centric' approach.

### Implementing agency

- The **National Health Authority (NHA)**, the apex agency responsible for the implementation of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), has been given the mandate by the government to design,

build, and roll-out and implement the NDHM in the country.

- *NHA is an attached office of the Ministry of Health and Family Welfare with full functional autonomy.*

#### Why in News?

- Dr. Indu Bhushan, Chairman, National Health Authority, said the National Digital Health Mission will soon be ready for a nationwide roll-out.
- The digital health mission has been launched in six Union Territories and is set for an all-India launch.

### 3) VAIBHAV Summit

#### About the Summit

- Vaishwik Bhartiya Vaigyanik (VAIBHAV) Summit is a **collaborative initiative by S&T and Academic Organisations of India** to enable deliberations on thought process, practices and R&D culture with a problem solving approach for well-defined objectives.
- The aim of the summit is to reflect in-depth on the **collaboration and cooperation instruments with academia and scientists in India.**
- The VAIBHAV initiative targets to bring out the comprehensive roadmap to leverage the expertise and knowledge of **global Indian researchers and academicians** for solving emerging challenges.
- The goal is to create an **ecosystem of Knowledge and Innovation** in the country through global outreach.

#### Why in News?

- The Prime Minister inaugurated the VAIBHAV Summit, a global virtual summit of overseas and resident Indian researchers and Academicians.
- More than 3,000 overseas Indian-origin academicians and scientists from 55 countries, and about 10,000 Indians participated to ideate on innovative solutions to our challenges.

### 4) Food Corporation of India

#### About

- Food Corporation of India (FCI) is a Public Sector Undertaking, under the **Department of Food & Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution.**
- It is a **statutory body** set up in 1965 under the Food Corporations Act 1964. It was established against the backdrop of a major shortage of grains, especially wheat.
- The main objectives of FCI are
  - **Procurement of food grains** from farmers at Minimum Support Prices (MSP) announced by the Government;
  - **Distribution of food grains** to consumers through PDS, particularly the vulnerable sections of society at affordable prices; and
  - **Maintenance of buffer stock** of food grains for food security and price stability.
- Thus, it is mandated to serve the interests of producers and consumers alike.

#### Why in News?

- According to data released by the Ministry of Consumer Affairs, over 1,550 tonnes of food grains had been damaged in Food Corporation of India godowns during the COVID-19-induced lockdown period in April and May.
- Foodgrains stored with FCI are kept in godowns with various preservation measures like fumigation and treatment with pesticides. Despite the precautions, small quantities of foodgrains may become unfit for use due to various reasons like natural calamities or damages in transit.
- This raised voices for immediate implementation of recommendations of the **Shanta Kumar committee.**

#### Shanta Kumar committee

- In 2014, the Ministry of Consumer Affairs, Food and Public Distribution

constituted a High Level Committee (HLC) on **Restructuring of Food Corporation of India** under the chairmanship of Shanta Kumar. The committee submitted its full Report in 2014.

- The committee observed that
  - Only 6 per cent farmers get MSP
  - Around 40-50 per cent leakages in PDS
  - Between 40-50 per cent beneficiaries do not get it grains they are entitled to

### Major Recommendations

#### NFSA Review

- The committee recommended **reducing the number of beneficiaries under the National Food Security Act, 2013**, from the current 67 per cent to 40 per cent.
- The amount of grains entitlement per person should be increased to **7 kg from existing 5 kg** under the National Food Security Act.

#### MSP Review

- The committee has recommended **revisiting MSP policy**. It says the government should **focus on MSP of pulses and oilseed**. This recommendation comes in the backdrop of skewed MSP policy, which concentrates only on wheat and rice. Rest of the 21 commodities, other than wheat and rice, get neglected.

#### Technology Adoption

- It recommended the gradual introduction of **cash transfers in PDS**, starting with large cities with more than 1 million population; extending it to grain surplus states, and then giving option to deficit states to opt for cash or physical grain distribution.
- The panel estimates the government will save **Rs 33,000 crore** by **adopting cash transfer method**, by avoiding costs on procurement, storage and distribution.
- The Centre can encourage **building of warehouses with better technology**,

and keep an **online track of grain stocks**.

- **Negotiable warehouse receipt systems (NWRs)** should be taken up on priority and scaled up quickly. Under this system, farmers can deposit their produce to the registered warehouses, and get say 80 percent advance from banks against their produce valued at MSP. They can sell later when they feel prices are good for them. This will bring back the private sector, reduce massively the costs of storage to the government, and be more compatible with a market economy.

#### Targeted procurement

- The committee has recommended that **FCI should involve** itself in full-fledged grains procurement **only in those states which are poor in procurement**. In the case of those states which are performing well, like Haryana, Punjab, Andhra Pradesh, Chhattisgarh, Madhya Pradesh and Odisha, the states should do the procurement.
- FCI should move on to help those states where farmers suffer from **distress sales** at prices much below MSP, and which are dominated by small holdings, like Eastern Uttar Pradesh, Bihar, West Bengal, Assam etc.
- The committee has recommended **full deregulation of the fertiliser sector** and calls for providing **cash fertiliser subsidy of Rs 7,000 per hectare to farmers**.

#### Allow private players

- It has also recommended allowing **private players** to procure and store food grains.
- FCI should **outsource stocking operations** to Central Warehousing Corporation, State Warehousing Corporation, private sector and even state governments that are building

silos through the private sector on state lands.

#### Other Recommendations

- The committee also recommends **clear and transparent liquidation policy for buffer stock**.
- FCI should be given **greater flexibility** in doing business; it should offload surplus stock in the open market or export, as per need.
- Targeted beneficiaries should be provided with **6 months' ration** after the procurement season ends. This will save the consumers from various hassles of monthly arrivals at Fair Price Shops and also save on the storage costs of agencies.

#### Related Information

##### About NFSA

- The National Food Security Act, 2013 (NFSA) provides for **food and nutritional security** in the human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices for people to live a life with dignity and for matters connected therewith or incidental thereto.
- The Act is in line with **Goal Two of the Sustainable Development Goals** (which seeks sustainable solutions to end hunger in all its forms by 2030 and to achieve food security) set by the United Nations General Assembly.
- Schemes such as the **Mid-Day Meal Scheme (MDM), the Public Distribution System (PDS), and the Integrated Child Development Services (ICDS)** are included under the Act.
- The implementation of the scheme comes under the ambit of the **Ministry of Consumer Affairs, Food and Public Distribution**.

##### Key Features

- The Act legally entitled up to **75% of the rural population and 50% of the urban population** to receive subsidized foodgrains under the

#### Targeted Public Distribution System (TPDS).

- The eligible persons will be **entitled to receive 5 Kgs of foodgrains per person per month at subsidised prices of Rs. 3/2/1 per Kg for rice/wheat/coarse grains**. The existing **Antyodaya Anna Yojana (AAY) households**, which constitute the poorest of the poor, will continue to receive 35 Kgs of foodgrains per household per month.
- About two-thirds of the population, therefore, is covered under the Act to receive highly subsidized foodgrains.
- The Act also has a special focus on the nutritional support to women and children. **Pregnant women and lactating mothers** will be entitled to meals and **maternity benefits of not less than Rs 6000**. It is however restricted to two children only.
- **Children upto 14 years of age** will be entitled to nutritious meals as per the prescribed nutritional standards. In case of non-supply of entitled food grains or meals, the beneficiaries will receive **food security allowance**.
- The Act also contains provisions for setting up of **grievance redressal mechanism** at the District and State levels
- The **eldest women of the household** of age 18 years or above will be the head of the household for the purpose of issuing ration cards.

##### Implementation

- It is operated under the **joint responsibility of the Central and the State/Union Territory (UT) Governments**.
- The Central Government is responsible for procurement, allocation and transportation of food grains up to the designated depots of the Food Corporation of India.
- States/UTs hold the operational responsibilities for allocation and distribution of food grains.

- The NFSA currently covers **81 crore people** which was determined on the basis of the **2011 census**, and has not been revised since the law was passed in 2013.

## 5) PRAGATI platform

### About the platform

- PRAGATI (Pro-Active Governance And Timely Implementation) is a ICT based multi-purpose and multi-modal platform launched in **2015** by the **Prime Minister's office (PMO)**.
- It is aimed at **addressing common man's grievances** and simultaneously **monitoring and reviewing important programmes and projects** of the Government of India as well as projects flagged by State Governments.
- It is also a robust system for bringing **e-transparency and e-accountability** with real-time presence and exchange among the key stakeholders.
- It also promotes **cooperative federalism** as it brings on one platform the Secretaries of Government of India and the Chief Secretaries of the States.

### Who designed it?

- The system has been designed in-house by the **PMO team with the help of National Informatics Center (NIC)**.

### Key features of PRAGATI application

- It is a **three-tier system** (PMO, Union Government Secretaries and Chief Secretaries of the States).
- The Prime Minister will hold a **monthly programme** where he will interact with the Government of India Secretaries, and Chief Secretaries through video-conferencing enabled by data and geo-informatics visuals.

### Why in News?

- The Prime Minister chaired the PRAGATI meeting recently. It marked the Prime Minister's thirty-third interaction through PRAGATI.

### Related Information

#### About NIC

- The National Informatics Centre under the **Ministry of Electronics and Information Technology (MeitY)** is the technology partner of the Government of India.
- It was established in 1976 with an objective to provide technology-driven solutions to Central and State Governments in various aspects of development.
- NIC has been instrumental in adopting and providing Information and Communication Technology (ICT) and eGovernance support to the Central Government.

# Environment

## 1) Central Pollution Control Board

### About CPCB

- The Central Pollution Control Board (CPCB) is a **statutory organisation** under the **Ministry of Environment, Forest and Climate Change**.
- It was constituted in 1974 under the **Water (Prevention and Control of Pollution) Act, 1974**.
- Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It also provides technical services to the Ministry of Environment and Forests of the provisions of the Environment (Protection) Act, 1986.
- The mandate of the CPCB is to set environmental standards in India, lay down ambient standards and coordinate the activities of State Pollution Control Boards.

### Why in News?

- The Central Pollution Control Board has directed State Pollution Control boards to take immediate and effective steps to control Air Pollution.
- CPCB also urged the public to provide feedback on polluting activities through **SAMEER App**.

### About the App

- The SAMEER App, **developed by CPCB**, provides information on air quality for more than 100 cities across India.
- It also allows users to register a complaint on a wide range of pollution-related activities.
- Available on the Google Play Store and Apple App Store for both Android and iOS users, the application can be conveniently downloaded across personal mobile phones.

## 2) India Climate Change Knowledge Portal

### What's in the news?

- The **Ministry of Environment, Forest and Climate Change** has launched the 'India Climate Change Knowledge Portal'.
- The portal will be a single point information resource which provides **information on the different climate initiatives taken by various Ministries**.

### Key Features of the Portal

- The portal captures **sector-wise adaptation and mitigation actions** that are being taken by the various line Ministries in one place including updated information on their implementation.
- The knowledge portal will help in **disseminating knowledge among citizens** about all the major steps the Government is taking at both national and international levels to address climate change issues.
- The eight major components included in the knowledge portal are:
  1. India's Climate Profile
  2. National Policy Framework
  3. India's NDC goals
  4. Adaptation Actions
  5. Mitigation Actions
  6. Bilateral and Multilateral Cooperation
  7. International Climate Negotiations
  8. Reports & Publications

## 3) Deemed forest

### What are deemed forests?

- Deemed forests **comprise about 1% of India's forest land**. They refer to land tracts that appear to be a "forest", but have not been notified so by the government or in historical records.
- While the concept of deemed forests has **not been clearly defined in any law** including the Forest Conservation

Act of 1980, the Supreme Court in the case of *T N Godavarman Thirumalpad (1996)* accepted a **wide definition of forests under the Act.**

- The apex court broadened the definition of forest to include not just land classified as forest under forest or revenue departments, but also those that are forests according to the definition of a forest.
- The Court held that the **word 'forest' must be understood according to its dictionary meaning.** This description covers all statutorily recognised forests, whether designated as reserved, protected or otherwise.
- It had then also asked states to **form committees to identify forests,** irrespective of the nature of land ownership or whether they are notified, recognised or classified in a time-bound manner.
- Preservation of forest areas in India under the Forest Conservation Act, 1980 has been continuously **monitored by the Supreme Court** since the Godavarman case judgment in 1996.
- The state government must obtain **clearances from the Supreme Court** for affecting changes to land classified as deemed forests since the verdict.

#### Why in the news?

- The Karnataka Assembly has decided to declassify 6.64 lakh hectares of deemed forest and divert it to other economical use.
- The Karnataka government has requested the Supreme Court to give an order regarding the declassification.

## 4) Fly Ash

### About

- Fly ash is a fine powder that is a byproduct of burning pulverized coal in electric generation power plants.
- Fly ash is a **pozzolan**, a substance containing aluminous and siliceous material that forms cement in the

presence of water. When mixed with lime and water, fly ash forms a compound similar to Portland cement.

### Issues with Fly ash

- Fly ash is a highly toxic substance known for causing **health and environmental problems.** It can contain lead, arsenic, mercury, cadmium, and uranium.
- When fly ash is deposited in water bodies they **contaminate aquaculture** and **may leach into landmasses,** leading to toxicity of agricultural land and drinking water.
- Fly ash cannot be disposed-off in the open field because it **pollutes the air, soil and groundwater.**
- Long inhalation of fly ash causes **serious respiratory problems.**
- Fly ash also causes **siltation problems.**
- There has been a significant push for promoting the utilisation of fly ash in brick manufacturing and other construction activity.

### Uses of fly ash

- Fly ash can be used as **prime material in many cement-based products,** such as poured concrete, concrete block, and brick.
- One of the most common uses of fly ash is in **Portland cement concrete pavement or PCC pavement.**
- **Road construction projects** using PCC can use a great deal of concrete, and substituting fly ash provides significant economic benefits.
- Fly ash has also been used as an **embankment and mine fill.**

### Regulations in India

- Over the years, India's dependence on coal has gone up and so has the production of fly ash. India has the **world's fourth-largest coal reserve and the second-largest producer of coal,** with **more than 50% of its demand for electricity being met by coal-based thermal power plants.**

- Indian regulations stipulate that **coal plants should ensure the fly ash they generate is made available, free of cost, to the cement and concrete industries**, so that it's recycled instead of polluting the environment.
- The cost of transportation of fly ash is to be borne collectively by the power plant and the industry concerned.
- However, the disposal of fly ash is a serious issue as **more than 20 percent of fly ash generated in the country remains unutilised**, according to data from the **Central Electricity Authority**.
- The Ministry of Environment, Forest and Climate Change (MoEF&CC) issued a draft notification in **December 2020** for utilisation of fly ash by coal- and lignite-based power plants. It introduces a **penalty regime for non-compliance for the first time**.

#### Why in News?

- The **National Thermal Power Corporation**, India's largest power producer, has developed geo-polymer aggregate from fly ash as a replacement to natural aggregates for use in building construction. Aggregates are commonly used in civil engineering projects to stabilise terrain.
- Geopolymers are inorganic, typically ceramic, materials that form long-range, covalently bonded, non-crystalline (amorphous) networks.

#### Benefits

- According to one estimate, the requirement of aggregates for infrastructure development in the country is about 2,000 million tonnes every year.
- The aggregate developed by NTPC from fly ash will help in meeting the demand to a great extent and will also **reduce the impact on the environment** caused by natural aggregates which require quarrying of natural stone.

- These aggregates are **extremely environment friendly** and **do not require any cement** for application in concrete where the fly ash based Geo-polymer mortar acts as the binding agent.
- The geo-polymer aggregate will help in **reducing carbon emission** and has **great potential for reduction of water consumption**.

#### Significance

- The geo-polymer aggregate is a part of the **concept of waste-to-best** to make best use of fly ash generated in the thermal power plant.
- In India, every year, approximately 258 million tonnes of ash is produced by the coal-fired thermal power plants.
- Out of this, around 78 per cent of the ash is utilised and the **balance remains unutilised in ash dykes**.
- The NTPC is exploring alternate ways to utilise the remaining ash which includes the current research project to generate aggregates using more than 90 per cent ash.

## 5) Commission for Air Quality Management in NCR

#### What's in the news?

- The **Commission for Air Quality Management in the National Capital Region and Adjoining Areas Ordinance, 2020** was promulgated on October 28, 2020.
- The Ordinance provides for the **constitution of a Commission** for better coordination, research, identification, and resolution of problems related to **air quality** in the **national capital region (NCR) and adjoining areas**.
- Adjoining areas refers to areas in the states of **Haryana, Punjab, Rajasthan, and Uttar Pradesh** where any source of pollution may cause adverse impact on air quality in the NCR.

#### Why has the central government set up this Commission?

- The monitoring and management of air quality in the Delhi NCR region has been **done piecemeal by multiple bodies** including the Central Pollution Control Board (CPCB), the state pollution control boards, the state governments in the region, including Delhi, Haryana, Uttar Pradesh, and Rajasthan, and the Environment Pollution (Prevention and Control) Authority (EPCA) of the National Capital Region.
- They in turn are monitored by the Union Ministry of Environment and Forests and Climate Change (MoEFCC), and the Supreme Court itself, which monitors air pollution as per the judgment in '*M C Mehta vs Union of India*', 1988.
- The Ordinance seeks to create an **overarching body to consolidate all monitoring bodies**, and to **bring them on one platform** so air quality management can be carried out in a more comprehensive, efficient, and time-bound manner.
- The Centre also seeks to **relieve the Supreme Court** from having to constantly monitor pollution levels through various pollution-related cases.

#### Functions of the Commission

- **Coordinating actions** taken under the Ordinance by concerned state governments (Delhi, Haryana, Punjab, Rajasthan, and Uttar Pradesh),
- **Planning and executing plans** to prevent and control air pollution in the region
- Providing a framework for **identification of air pollutants**
- **Conducting research and development** through networking with technical institutions
- **Training and creating a special work force** to deal with issues related to air pollution and

- Preparing various action plans such as **increasing plantation and addressing stubble burning.**

#### Powers of the Commission

- **Restricting activities influencing air quality**
- **Investigating and conducting research** related to environmental pollution impacting air quality
- Preparing **codes and guidelines** to prevent and control air pollution, and
- **Issuing directions** which will be binding on the concerned person or authority.

#### Composition

- The Commission, which will be a **permanent body**, will have **over 20 members.**
- It will be chaired by a **retired official of the level of Secretary to the Government of India or Chief Secretary of a state.**
- It will include a representative of the Secretary of the (MoEFCC), five Secretary level officers who will be ex officio members, and two joint secretary level officers who will be full-time members.
- The Commission will also have representation from the CPCB, ISRO, air pollution experts, and three representatives of non-government organisations (NGOs).
- As associate members, the Commission will have representatives from various other Ministries including the Ministries of Agriculture, Petroleum, Power, Road Transport and Highways, Housing and Urban Affairs, and Commerce and Industry.
- The composition of the body indicates the central government's push to **bring all stakeholders on one platform** — this is important because the management of air pollution in Delhi NCR will involve controlling stubble-burning (Agriculture Ministry and state governments), and the control of

industrial emissions (Commerce and Industries Ministry), etc.

#### Tenure

- The Chairperson and members of the Commission will have tenure of **three years or till the age of seventy years**, whichever is earlier.

#### Selection Committee

- The appointment of the Chairperson and members of the Commission will be done by the **central government on the recommendations of a Selection Committee**.
- The Committee will be headed by the Minister in-charge of the **Ministry of Environment, Forest and Climate Change**.
- Further, the Committee will include the Cabinet Secretary and the Minister in-charge of: (i) Ministry of Commerce and Industry, (ii) Ministry of Road Transport and Highways, and (iii) Ministry of Science and Technology.

#### Penalties

- Any non-compliance or violation of the provisions of the Ordinance or orders and directions of the Commission is punishable with **imprisonment of up to five years or fine of up to one crore rupees or both**.
- The Commission will be the **sole authority** with jurisdiction over matters defined in the Ordinance (such as air quality management).
- **In case of any conflict, the orders or directions of the Commission will prevail** over the orders of the state governments (of Delhi, Haryana, Punjab, Rajasthan, and Uttar Pradesh), the Central Pollution Control Board (CPCB), state PCBs, and state-level statutory bodies.
- All **appeals** against the Commission's orders will be heard by the **National Green Tribunal**.

#### Criticisms

**What is the necessity of the new commission?**

- **Legal provisions to control air pollution already exist** in the Air (Prevention and Control of Pollution) Act, 1981, and the Environment (Protection) Act, 1986 which just need to be implemented effectively.
- For instance, The Environment (Protection) Act, 1986, already provides for a five-year sentence and a fine of up to Rs 1 lakh or a Rs 5,000 per day. The Air (Prevention and Control of Pollution) Act, 1981, also provides for a jail term and financial penalty.

#### Centralised supra framework

- This move to establish the Commission **erases all other committees and authorities** that were set up under judicial and administrative orders, and seeks to **limit the role of the judiciary, creating a centralised, supra-framework for air-quality management**.
- But it is extremely important for all independent judicial authorities and committees to remain functional because they have been doing very important and commendable work.
- It is also not clear how the state governments in the region (Delhi, Uttar Pradesh, Haryana and Rajasthan) will take decisions on mitigation or set higher levels of ambition.

#### Way Forward

- The real challenge for the commission at this crossroad is its preparedness and ability to push for the difficult and inconvenient solutions to reduce particulate pollution by at least 60 per cent.
- The new move brings urgent attention to the public health crisis that it deserves. But clearly, the expectation is that the executive will live up to the new challenge and succeed in implementing the tough solutions needed to clean up the air and the lungs.

## 6) Forest Fires

## Context

- The most common hazard in forests is forest fire. They pose a threat not only to the forest wealth but also to the entire regime to fauna and flora seriously disturbing the biodiversity and the ecology and environment of a region.

## Causes of Forest Fire

- Forest fires are caused by Natural causes as well as Manmade causes:
  - **Natural causes** - Many forest fires start from natural causes such as lightning which set trees on fire. However, rain extinguishes such fires without causing much damage. High atmospheric temperatures and dryness (low humidity) offer favorable circumstances for a fire to start.
  - **Man-made causes** - Fire is caused when a source of fire like naked flame, cigarette or bidi, electric spark or any source of ignition comes into contact with inflammable material.

## Role of Climate Change in Forest Fires

- According to the '**Fires, Forests, and the Future: A crisis raging out of control**' report of the **World Wide Fund For Nature (WWF)**, the world saw a 13 per cent increase in forest fire events in the year 2019.
- Climate change is causing wildfires in the most unlikely places.
- Recently, **Siberia** lost nine million hectares of forest due to forest fires, an area the size of Portugal. According to a study published in Nature Geoscience, the region is drying up and becoming more arid, exposing the moss, grass, dwarf shrubs which are catching fire.
- The **wildfires in Australia in 2019-20** killed or displaced over three billion animals. It also pushed 26 species closer to extinction.
- The situation is alarming even in India. In the past three years (2017-19), the

country on an average recorded nearly 35,000 forest fire incidents.

## Impacts on Ecosystem

- **Forest fires release carbon** stored in vegetation and soil, and as the severity increases, they begin to damage deeper layers of soil, releasing centuries-old legacy carbon.
- Further, forests that regrow after a fire are **smaller and drier than before**, and, in some ecosystems, their **carbon storage capacity is reduced**. This results in a **net increase in carbon emissions**.

## Way Forward

- Forest fires are usually seasonal. They usually start in the dry season and can be prevented by adequate precautions.
- In India, during the British period, fire was prevented in the summer through removal of forest litter all along the forest boundary. This was called "**Forest Fire Line**". This line used to prevent fire breaking into the forest from one compartment to another. The collected litter was burnt in isolation. Generally, the fire spreads only if there is continuous supply of fuel (Dry vegetation) along its path.
- The best way to control a forest fire is therefore, to prevent it from spreading, which can be done by **creating firebreaks** in the shape of small clearings of ditches in the forests.
- **Preparedness in forest fire management** leads to effective response to fire disasters resulting in reduced impact and quicker recovery.
- **Digitization of forest boundaries, strengthening engagement with local communities** can also be adopted.
- The linkage of climate change and the increase in global forest fires is clear. World leaders need to put aside their self-serving, science denying politics and spearhead climate smart policies.

Their leadership is required to build a low-carbon world.

## 7) UNESCO Global Geoparks

### About Global Geoparks

- UNESCO Global Geoparks are **single, unified geographical areas where sites and landscapes of international geological significance** are managed with a holistic concept of protection, education and sustainable development.
- The purpose of a UNESCO Global Geopark is to explore, develop and celebrate the links between geological heritage and all other aspects of the area's natural, cultural and intangible heritages.
- The **status does not imply restrictions on any economic activity** inside a Geopark where that activity complies with indigenous, local, regional and/or national legislation.

### Bottom-up approach

- UNESCO Global Geoparks are established through a bottom-up process involving all relevant local and regional stakeholders and authorities in the area (e.g. land owners, community groups, tourism providers, indigenous people, and local organizations).

### Difference between UNESCO Global Geoparks, Biosphere Reserves and World Heritage Sites

- UNESCO Global Geoparks, together with the other two UNESCO site designations Biosphere Reserves and World Heritage Sites, give a complete picture of celebrating our heritage while at the same time conserving the world's cultural, biological and geological diversity, and promoting sustainable economic development.
- While **Biosphere Reserves** focus on the harmonised management of biological and cultural diversity and **World Heritage Sites** promote

the conservation of natural and cultural sites of outstanding universal value, **UNESCO Global Geoparks** give international recognition for sites that promote the importance and significance of protecting the Earth's geodiversity through actively engaging with the local communities.

### What is the Global Geoparks Network?

- The Global Geoparks Network (GGN), of which **membership is obligatory for UNESCO Global Geoparks**, is a legally constituted **not-for-profit organisation**.
- The GGN was founded in **2004** and is a dynamic network where members are committed to work together and exchange ideas of best practise and join in common projects to raise the quality standards of all products and practises of a UNESCO Global Geopark.

### India's Case

- At present, there are **161 UNESCO Global Geoparks in 44 countries**.
- Despite its extremely diverse geological terrain and markings of some of the world's most fabulous geological events, **India does not have a single geopark recognised by UNESCO**.

### Why in News?

- Conservation organisations in India are making efforts to get recognition of a geopark for several sites in Visakhapatnam (Andhra Pradesh).

## 8) Committees related to Western Ghats Conservation

### Background

- **Western Ghats Ecology Expert Panel (WGEEP)** headed by **Madhav Gadgil** was formed by the Ministry of Environment, Forest and Climate Change (MoEFCC) in **2010** to study the impact of population pressure, climate change and development activities on the **Western Ghats**.

### Gadgil Committee Recommendations

- Calling the Western Ghats region as "**Protector of Indian Peninsula**", the panel designated the **entire western ghats as an Ecologically Sensitive Area (ESA)**, with only limited development allowed in graded zones.
- It classified the 142 taluks in the Western Ghats boundary into **Ecologically Sensitive Zones (ESZ) 1, 2 and 3**, with varying degrees of protection. ESZ-1 being of high priority, almost all developmental activities (mining, thermal power plants etc) were restricted in it.
- Gadgil Committee report specifies that the present system of governance of the environment should be changed. It asked for a **bottom to top approach (right from Gram sabhas)** rather than a top to bottom approach. It also asked for **decentralization and more powers to local authorities**.
- The commission recommended the constitution of a **Western Ghats Ecology Authority (WGEA)**, as a statutory authority under MoEFCC, with the powers under the Environment (Protection) Act, 1986.
- The Gadgil report also called for **decommissioning of big projects** like dams, thermal power stations that have completed their shelf life.
- The Kasturirangan Commission **sought to balance the development and environment protection**.
- It made a **distinction between the 'cultural landscape' and 'natural landscape'**. According to this distinction:
  - 41 per cent of the Western Ghats is "natural landscape", having low population impact and rich biodiversity.
  - The remaining 59 per cent is "cultural landscape" dominated by human settlements and agricultural fields
- Thus, instead of declaring the entire Western Ghats as ESA, the panel said that **90 per cent of the "natural landscape" should be protected**. This would be around 60,000 Km<sup>2</sup> (**37.5 % of the total area of the Western Ghats**) ecologically sensitive area against the 137000 Km<sup>2</sup> areas as stipulated in the Gadgil report.
- The committee recommended a **ban on all polluting industries** (including mining) categorised as most hazardous in the Water (Prevention and Control of Pollution) Act, 1974, and Air (Prevention and Control of Pollution) Act, 1981.
- It made **several pro-farmer recommendations**, including the exclusion of inhabited regions and plantations from the purview of ESA.

### Implementation Issues

- The Western Ghats region covers **six states** (Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu). The states have not shown much interest in implementing the recommendations of the Gadgil panel as states fear it may cause livelihood loss to thousands of people.
- Following protests by various groups and political parties against the recommendations, the government constituted the **K Kasturirangan committee in 2012 to examine the WGEEP report**.

### Recommendations of Kasturirangan committee

### Present Status

- In 2017, the environment ministry had issued a draft notification accepting certain recommendations of the Kasturirangan report and called on the governments of Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu to oversee their implementation.
- Today, the Kasturirangan report remains under consideration by the National Green Tribunal (NGT).

### Why in News?

- The Karnataka State Cabinet has constituted a committee to study the

Kasturirangan report and make recommendations to the Centre on its implementation.

## 9) Vulture conservation plan

### Vultures in India

- Vultures are large, magnificent raptors. By cleaning up carcasses and other organic waste in the environment, they provide critically important ecosystem services that also directly benefit humans.
- India has **9 vulture species** in the country.
- **Four of India's vulture species are under severe threat.**
  - Indian Vulture (*Gyps indicus*)- Critically Endangered
  - Indian White-rumped Vulture (*Gyps bengalensis*)- Critically Endangered
  - Red-headed Vulture (*Sarcogyps calvus*)- Critically Endangered
  - Slender-billed Vulture (*Gyps tenuirostris*)- Critically Endangered
- Other Species of Vultures found in India include Egyptian Vulture (*Neophron percnopterus*), Cincorous Vulture (*Aegyptius monachus*), Bearded Vulture (*Gypaetus barbatus*), Griffon Vulture (*Gyps fulvus*) and Himalayan Vulture (*Gyps himalayansis*).
- Most of their populations are declining. Their decline is associated with **use of Diclofenac** for cattle treatment which then ends up in their digestive system making them vulnerable to kidney failure and poisoning.

### Diclofenac

- Diclofenac is a common **anti-inflammatory drug** administered to livestock and is used to treat the symptoms of inflammation, fevers and/or pain associated with disease or wounds. It was widely used in India beginning in the 1990s.
- But for **vultures which eat dead cattle, are vulnerable to Diclofenac.**

This drug causes kidney failure in the vultures.

- Though the drug was **banned** in India in 2006, it is reportedly still available for use.

### Why in the news?

- The National Board for Wildlife (NBWL) has cleared an action plan namely '**Action Plan for Vulture Conservation 2020-2025**'.
- Under this plan, there is a proposal to establish **Vulture Conservation Breeding Centres** in the states of Uttar Pradesh, Tripura, Maharashtra, Karnataka and Tamil Nadu. These centres will be used to breed birds of Red Headed vulture and Egyptian vulture.
- It also recommends establishing at least one "**Vulture Safe Zone**" in **every State** for the conservation of the remnant populations.
- It also recommends establishing 4 vulture rescue centres across India.

### National Board for Wildlife

- This **statutory body** is constituted under **Wildlife Protection Act (WLPA), 1972**.
- It is chaired by the **Prime Minister** and reviews all wildlife related matters. The NBWL has 47 members including the chairperson.
- NBWL **approves projects concerning in and around wildlife sanctuaries and national parks** and has the power to deal with policy-level decisions on wildlife.
- The board is **advisory** in its nature regarding conservation of wildlife.
- Under WLPA, NBWL can have a **Standing Committee** which is chaired by the **Minister of Environment, Forest and Climate Change**.

## 10) Mudumalai Tiger Reserve

### About the Reserve

- It is located in the Nilgiris district of **Tamil Nadu**.

- Present at the **tri-juncture of Karnataka, Tamil Nadu and Kerala**, the Mudumalai Tiger Reserve (MTR) is a part of the **Nilgiris Biosphere Reserve**, the first Biosphere Reserve in India, declared in 1986.
- A variety of habitat ranging from tropical evergreen forest, moist deciduous forest, moist teak forest, dry teak forest, secondary grasslands and swamps are found here.
- It has a common boundary with **Wayanad Wildlife Sanctuary (Kerala)** on the West and **Bandipur Tiger Reserve (Karnataka)** on the North.
- It is known for its flagship species like **Tiger, Elephant etc.**

#### Why in the News?

- The Supreme Court (SC) has upheld the Tamil Nadu government notification declaring the **Singur plateau region of Mudumalai Tiger Reserve** as **Elephant Corridor**.
- The court rejected the plea of resort owners against the notification.
- The elephant corridor declared now is a part of the **eco-sensitive zone of MTR**.

#### What are Eco-sensitive zones?

- As a general principle, **land falling within 10 kms** of the boundaries of the National Parks and Wildlife Sanctuaries are categorised as Eco-Fragile Zones or Eco-sensitive Zones.
- They are declared under the **Environment Protection Act, 1986**.
- The purpose of declaring Eco-sensitive Zones around National parks and Sanctuaries is to create some kind of "**Shock Absorber**" for the Protected Areas. They would also act as a **transition zone** from areas of high protection to areas involving lesser protection.
- The activities in the eco-sensitive zones would be of a **regulatory nature rather than prohibitive nature**, unless and otherwise so required.

## Flora and Fauna

### 1) Hunchback Mahseer

#### Hunchback Mahseer



- The hump-backed mahseer (*Tor remadevii*) is a large freshwater fish **endemic to South India's Cauvery River system and its various tributaries.**
- It is also called **Tiger of Cauvery River.**
- Once found across the Cauvery River, now have been constrained to few stretches of the river. According to estimates, hump-backed mahseer is **functionally extinct along 90% of its home range.**
- Destructive fishing methods, building of dams that reduced the flow rates in the river, over-abstraction of water, pollution and introduction of non-

native fishes are cited as reasons for the dwindling numbers.

- It is listed as a **critically endangered** species according to IUCN.

#### Why in the news?

- Scientists and conservationists of Wildlife Association of South India (WASI), a non-profit organisation working on conservation of the Mahseer fish population, have found that the **Moyar River** is one of the last strongholds of pure breeds of Hunchback Mahseer.

#### Moyar River

- River Moyar originates in the **Nilgiris (Tamil Nadu)** of the Western Ghats, flowing West to East along the Tamilnadu and Karnataka State border.
- It is one of the tributaries of **Bhavani River** (a tributary of **River Cauvery**).
- This is a natural line of separation between the state of Karnataka and Tamil Nadu and a separation between the forest of **Bandipur National Park and the Mudumalai sanctuary.**

# Agriculture

## 1) New Farm Acts

### What's in the news?

- Since November, the borders of Delhi have been witnessing a huge agitation being carried out by farmers. They are demanding repeal of the three farm Acts passed by the Parliament in September, which were then signed into law by the president.

### The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

- This legislation seeks to **give freedom to farmers to sell their produce outside the notified Agricultural Produce Market Committee (APMC) mandis.**
- This is aimed at facilitating remunerative prices through competitive alternative trading channels.
- State governments are **prohibited from levying any market fee, cess or levy outside APMC areas.**

### Benefits

- The government claims that the APMC is an obsolete institution from an age of scarcity, meant to protect the farmer but has now become his oppressor, a monopoly cartel fixing low prices for the farmers' produce, forcing distress sales.
- A **Standing Committee on Agriculture (2018-19)** observed the APMC laws needed reforms as **cartelization** had begun to crystallise due to a limited number of traders in APMC mandis.
- The new act will open more choices for farmers, reduce marketing costs, and help them get better prices.
- It will also help farmers of regions with surplus produce to get better prices and consumers in areas with shortages at lower prices.

### Opposition

- By loosening the grip of APMCs, the government risks the possibility of

farmers receiving prices below the minimum support price (MSP). A similar law was passed in **Bihar** in 2006 when the state abolished APMCs. A recent study conducted by the **National Council for Applied Economic Research** reported an increased volatility in grain prices in Bihar. The state also witnessed a fractured growth in agriculture after the repeal of the mandi system in 2006.

- **States will also lose revenue** as they will not be able to collect 'mandi fees' if farmers sell their produce outside registered APMC markets.
- More importantly, farmers and opposition parties fear it may eventually lead to the end of the MSP-based procurement system and may lead to exploitation by private companies.

### The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020

- This legislation seeks to give **farmers the right to enter into a contract** with agribusiness firms, processors, wholesalers, exporters, or large retailers for the sale of future farming produce at a pre-agreed price.

### Benefits

- It seeks to transfer the risk of market unpredictability from farmers to sponsors.
- Besides giving them access to modern tech and better inputs, it also seeks to boost farmer income by reducing the cost of marketing.

### Opposition

- The protesting farmers fear that powerful investors would bind them to unfavourable contracts drafted by big corporate law firms, with liability clauses that would be beyond the understanding of poor farmers in most cases.

## The Essential Commodities (Amendment) Act, 2020

- Refer “Essential Commodities Act” topic

### Benefits

- It is aimed at attracting private investment/FDI into the farm sector as well as bringing price stability.

### Opposition

- Big companies will have the freedom to stock commodities, helping them dictate terms to farmers.

### Conclusion

- Despite being visionary in intent, in rushing the bills through parliament on the strength of numbers, the Union government seems to have handed the short end of the stick to the states and farmers.
- A **greater degree of consultation** could have provided much needed impetus for the realisation of the vision for transformation.
- Some states are contesting the bills in the Supreme Court, while others are trying to circumvent their way around them. In order to truly transform agriculture in India, the central government needs to be **far more inclusive in their planning and decision-making processes**.
- It also needs to assure the farmers that the legislations are not an attempt to phase out government procurement.

## 2) Essential Commodities Act

### About ECA

- The Essential Commodities Act (ECA) was enacted by the Central Government in 1955 to control and regulate trade and prices of commodities declared essential under the Act.
- Though there is **no specific definition for ‘essential commodities’**, Section 2(A) of this Act states that an essential commodity means a commodity specified in the “Schedule” of this Act.
- The Act empowers the **Central and state governments** concurrently to

control production, supply and distribution of certain commodities in view of rising prices and to prevent Black marketing.

- The measures that can be taken under the provisions of the Act include **licensing, distribution and imposing stock limits**. The governments also have the power to fix price limits, and selling the particular commodities above the limit will attract penalties.
- Most of the powers under the Act have been delegated by the Central Government to the State Governments with the direction that they shall exercise these powers.
- Some of the major commodities that are covered under the act:
  - Petroleum and its products
  - Food stuff, including seeds, vanaspati
  - Drugs- prices of essential drugs
  - Fertilisers
  - Raw jute and jute textiles
  - Cattle fodder
  - Face masks and sanitisers.

### Background

- In September 2020, the central government passed **The Essential Commodities (Amendment) Act, 2020** which **deregulated the sale of six types of agricultural produce**, including cereals, edible oils, oilseeds, pulses, onions and potatoes, by amending the Essential Commodities Act, 1955.
- Stock limits on these commodities may be **regulated only under extraordinary circumstances** which may include **(i) war, (ii) famine, (iii) extraordinary price rise and (iv) natural calamity of grave nature**.
- The amendment requires that imposition of any stock limit on agricultural produce must be based on price rise. **A stock limit may be imposed only** if there is: (i) a 100% increase in retail price of horticultural produce; and (ii) a 50% increase in the

retail price of non-perishable agricultural food items.

- However, such limits will not be imposed at all on **food processors or value chain participants**, which/who will be allowed to store as much as allowed by their installed capacity. **Exporters** will also be exempted.

#### Were the amendments necessary?

- The government claims that while India has become **surplus in most agri-commodities**, farmers have been unable to get better prices due to lack of investment in cold storage, warehouses, processing and export. It says the Essential Commodities Act was handy in the 1960s and 1970s when India was still a net importer of food.
- According to the **Economic Survey 2019-20**, frequent and unpredictable imposition of blanket stock limits on commodities under Essential Commodities Act neither brings down

prices nor reduces price volatility. However, such intervention does enable opportunities for rent-seeking (unproductive income) and harassment.

- The reduction in government regulation by the amendment is expected to encourage traders and investors to **build warehousing and supply chain infrastructure** without worrying about being raided on suspicions of hoarding. The Centre had also promised that farmers' income would rise through the move.

#### Why in News?

- With onion prices crossing ₹100 per kg in several cities, the Centre imposed stock limits on wholesalers and retailers to prevent hoarding.
- This is the first time stock limits have been imposed on any commodity after the Essential Commodities Act was amended to reduce such interventions.

# Economy

## 1) Open research data

### What is Open Access?

- Open Access (OA) is a set of principles and a range of practices that seeks to make **academic information contained in science journals and platforms freely available online** immediately after publication.
- That means there are no financial, legal or technical barriers in accessing such intellectual property.

### How does this happen?

- Traditionally, publishers of scientific research and data have been an **oligopoly** that has put research data and articles behind pay walls, allowing **access only through high subscription rates** that are generally unaffordable.
  - *Oligopoly is a market structure in which only a limited number of firms are in competition on the supply side and they collectively dominate the market.*
- In the OA system, governments and universities or the scientists and the scholars pay to have their research published and thereafter, it becomes **free to all**.

### Background

- Researchers have demanded open access to scientific data for the past two decades. The demand has the support of organisations such as UNESCO and Organisation for Economic Co-operation and Development.
- OA took off in 2000 after Nobel Prize winner Harold Varmus, along with Patrick Brown and Michael Eisen, set up the **Public Library of Science** to provide “the full contents of the published record of research and scholarly discourse in medicine and the life sciences in a freely accessible, fully searchable, interlinked form”.

### Status in India

- India has **no policy on OA**, but one of the proposals under consideration is an expert group recommendation for a **‘one nation one subscription’** formula.
- Under this, the government will negotiate with leading publishers of scientific and scholarly journals for a country-wide open access policy for a single subscription. In return, India will provide access to all published data by every individual living in the country.

### Why in News?

- The **COVID-19 Open Research Dataset (CORD-19)**, a free resource of over 29,000 scholarly articles about COVID-19 and the coronavirus family of viruses, has helped scientists work on innovative solutions to deal with the pandemic.
- Launched in response to the novel coronavirus disease, it is a coalition of leading research groups around the globe.

## 2) National Investment and Infrastructure Fund

### About NIIF

- National Investment and Infrastructure Fund (NIIF), is an **Indian-government backed entity** established in **2016** to **provide long-term capital to the country’s infrastructure sector**.
- The Indian government has **49 per cent** stake in NIIF with the rest held by foreign and domestic investors. NIIF is India’s **first sovereign wealth fund**.
  - *Sovereign Wealth Funds (SWFs) are pools of assets owned and managed directly or indirectly by governments to achieve national objectives.*
- NIIF got registered with SEBI as a **Category II Alternative Investment Fund (AIF)**.

- *AIFs are private funds which are otherwise not coming under the jurisdiction of any regulatory agency in India. In India, AIFs are regulated by the Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012.*
- NIIF currently manages **three funds** each with its distinctive investment mandate.

#### **Master Fund**

- A fund focused on creating scalable sectoral platforms in core infrastructure and in collaboration with strong and reputed operating and financial partners.

#### **Fund of Funds**

- A fund focused on anchoring and investing in credible and reputed third party managers with a strong track record across diversified sectors within infrastructure services and allied sectors.

#### **Strategic Fund**

- A fund focused on investing in strategic assets and projects with a longer term horizon across various stages of development.

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

- The government has announced that it will infuse Rs 2,000 crore in the National Investment and Infrastructure Fund.
- This is part of the Rs 6,000 crore announced by Finance Minister Nirmala Sitharaman under a stimulus package recently.

### **3) Viability Gap Funding**

#### **What is VGF?**

- The main constraint in India's infrastructure sector is the **lack of source for finance**. More than the overall difficulty of securing funds, some projects **may not be financially viable though they are economically justified and necessary**. This is the nature of several infrastructural

projects which are long term and development oriented.

- For the successful completion of such projects, the government has designed Viability Gap Funding (VGF). It means a grant one-time or deferred, provided to support infrastructure projects that are **economically justified but fall short of financial viability**.
- Through the provision of a catalytic grant assistance of the capital costs, several projects may become bankable and help mobilize private investment in infrastructure.

#### **Present status**

- The **Department of Economic Affairs, Ministry of Finance** introduced "**the Scheme for Financial Support to PPPs in Infrastructure**" (**Viability Gap Funding Scheme**) in 2006 with a view to support infrastructure projects undertaken through Public Private Partnership (PPP) mode.
- **VGF up to 40 per cent of the total project cost** is provided by the central government and the sponsoring authority in the form of capital grant at the stage of project construction.
- Support under this scheme is available **only for infrastructure projects** where private sector sponsors are **selected through a process of competitive bidding**.
- The project agreements must also follow the best practices that would secure value for public money. Regular monitoring and evaluation should be done by the lead financial institutions for the disbursement of the grants.

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

- The government has expanded the provision of financial support by means of viability gap funding for public private partnerships (PPPs) in infrastructure projects to include **critical social sector investments** in sectors such as **health, education, water and waste treatment**.

- The government also approved the continuation of the scheme for financial support to PPPs in infrastructure till 2024-25.
- A total of ₹8,100 crore has been allocated under this programme between 2020-21 and 2024-25, of which ₹2,100 crore will be devoted to social sector projects.

#### 4) NCDEX & AGRIDEX

##### What is a Derivative?

- A derivative is a contract between two parties which derives its value/price from an **underlying asset**. Generally stocks, bonds, currency, commodities and interest rates form the underlying asset.
- The most common types of derivatives are **futures and options**.

##### Futures and Options

- A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Here, the buyer is **obliged to buy the asset on the specified future date**.
- An options contract gives the buyer the right to buy the asset at a fixed price. However, there is **no obligation on the part of the buyer to go through with the purchase**.

##### Commodity exchanges

- In a commodity exchange, various commodities like oil, wheat, soybean, gold, silver, etc. are traded mainly for the **purpose of hedging**.
- For example, think of a farmer who is worried about the price fluctuations and feels he would face loss after some time. He enters into a commodity futures contract wherein he agrees to sell his commodity at a specific price at a specific time.
- By doing so, the farmer tries to reduce his loss. Commodity trading is not meant only for farmers as anybody can trade and make profit.

##### About NCDEX

- The National Commodity and Derivatives Exchange (NCDEX) is the country's **leading agricultural commodity exchange**, which offers services across the entire value-chain of agricultural commodities.
- It was established in **2003**, and its headquarters are in **Mumbai**.
- It brings buyers and sellers together through its electronic trading platform.
- NCDEX is regulated by the **Securities and Exchange Board of India (SEBI)**.
- As of September 30, 2019, NCDEX offered **future contracts** for 21 agricultural commodities and **options contracts** for five agricultural commodities, on the Exchange platform.

##### AGRIDEX

- In May 2020, the NCDEX launched the **country's first agricultural futures trading index — 'AGRIDEX'**.
- AGRIDEX comprises **10 commodities** traded on NCDEX and will serve as a broad benchmark for India's strong agricultural sector.
- The spot and future trading of these 10 commodities — soybean, chana, coriander, cottonseed oilcake, guar gum, guar seed, mustard seed, refined soy oil, castor seed and jeera — will define the value of this index.
- The index represents various agricultural commodities of both kharif and rabi seasons, with price references throughout the year.
- Agridex has a **commodity-wise capping** so that no single commodity dominates the index.
- Also, to ensure **diversification** under Agridex, none of the group of related commodities constitutes over 40 per cent of the total weightage in the index.

##### Why in News?

- NCDEX announced that it will provide **underwriting support** for 5,000 tonnes of chana and mustard, to kickstart options trading for farmer-

producer organisations (FPOs) in these two commodities.

- *Underwriting services are provided by some large financial institutions, such as banks, insurance companies and investment houses, whereby they guarantee payment in case of damage or financial loss and accept the financial risk for liability arising from such guarantee.*

## 5) Technical Recession

### What's in the news?

- A 'nowcast' (a forecast that estimates the outcome of a near-term event) in the November monthly bulletin of the RBI projected that **India's GDP contracted by 8.6% in the July-September quarter** of the financial year ending in March 2021.
- According to the bulletin, **India has entered a technical recession** in the first half of 2020-21 for the first time in its history with the second quarter

of the current financial year likely to record the second successive quarter of GDP contraction.

- GDP had shrunk by 23.9% in the first quarter.
- To better understand the term "technical recession", one must distinguish it from two other phrases — a recession and a recessionary phase of an economy.

### What is a recessionary phase?

- When the overall output of goods and services — typically measured by the GDP — increases from one quarter (or month) to another, the economy is said to be in an **expansionary phase**. And when the GDP contracts from one quarter to another, the economy is said to be in a **recessionary phase**.
- Together, these two phases create what is called a "**business cycle**" in any economy. A full business cycle could last anywhere between one year and a decade.

## INDIA GDP ANNUAL GROWTH RATE, 1951-2020



- The above line graph maps India's quarterly real GDP growth since 1951. The peaks and troughs show the different expansionary and recessionary phases of the economy. As the graph shows, there have been several expansionary and recessionary phases in India's history.
- **When a recessionary phase sustains for long enough, it is called a recession.** In other words, when the GDP contracts for a long enough period, the economy is said to be in a recession.
- There is, however, **no universally accepted definition of a recession** — as in, for how long should the GDP contract before an economy is said to

be in a recession. But most economists agree with the definition that the **National Bureau of Economic Research (NBER)** in the United States uses.

- According to NBER, “During a recession, a significant decline in economic activity spreads across the economy and can **last from a few months to more than a year**”.
- NBER typically looks at **various variables** — employment, consumption etc — apart from GDP growth to arrive at a decision. It also looks at the “depth, diffusion, and duration” of decline in economic activity to determine whether an economy is in a recession or not.

#### What is a technical recession?

- A technical recession is a term used to describe **two consecutive quarters of decline in output**. In the case of a nation’s economy, the term usually refers to back-to-back contractions in real GDP.
- The most significant difference between a **‘technical recession’** and a

**‘recession’** is that while the former term is mainly used to **capture the trend in GDP**, the latter expression encompasses an **appreciably more broad-based decline in economic activity** that covers several economic variables including employment, household and corporate incomes and sales at businesses.

- Another key feature of a technical recession is that it is **most often caused by a one-off event** (in this case, the COVID-19 pandemic and the lockdowns imposed to combat it) and is **generally shorter in duration**.

#### How long do recessions last?

- Typically, recessions last for a few quarters. If they continue for years, they are referred to as **“depressions”**. But a depression is quite rare; the last one was during the 1930s in the US.
- In the current scenario, the key determinant for any economy to come out of recession is to control the spread of Covid-19.

# Organisations

## 1) Shanghai Cooperation Organisation

### About SCO

- Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation established in 2001.
- It's a Eurasian **political, economic and military** organisation aiming to maintain peace, security and stability in the region.
- Prior to the creation of SCO in 2001, **Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan** were members of the **Shanghai Five**.
- Following the accession of **Uzbekistan** to the organisation in 2001, the Shanghai Five was renamed the SCO.
- There are **eight member states** in the SCO at present. **India** and **Pakistan** became members in 2017.
- The **SCO Secretariat**, based in Beijing, is the main permanent executive body of the SCO.
- The organisation has **two permanent bodies** —
  1. The **SCO Secretariat** based in Beijing and
  2. The Executive Committee of the **Regional Anti-Terrorist Structure (RATS)** based in Tashkent. RATS serve to promote cooperation of member states against the three evils of terrorism, separatism and extremism.

### Objectives of the SCO

- To strengthen mutual trust among the neighbouring member states.
- To promote effective cooperation in various fields like economy, trade, politics, culture and research and technology.
- To ensure peace, prosperity, security and stability in the region, and
- To establish a democratic, fair and rational international eco-political order.

### Why in News?

- The 20th Summit of the SCO Council of Heads of State was held recently via Video Conference.

## 2) Asia-Pacific Economic Cooperation (APEC)

### About APEC

- APEC is a regional economic forum established in **1989** to leverage the growing interdependence of the Asia-Pacific.
- APEC's aim is to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.
- APEC operates as a cooperative, multilateral economic and trade forum.
- The APEC Secretariat is based in **Singapore** and operates as the core support mechanism for the APEC process.

## APEC Member Economies (21)



### Membership of APEC

- There are **21 member economies** at present. It includes Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.
- **India is a non-member.**

### Why in News?

- A visual leaders' meeting of the Asia-Pacific Economic Cooperation was held recently.

## 3) BRICS

### About BRICS

- BRICS brings together five major emerging economies- **China, Brazil, Russia, India and South Africa**. It comprises 43% of the world population, having 30% of the world GDP and a 17% share in world trade.
- The grouping was formalised during the first meeting of **BRIC** (Brazil, Russia, India and China) Foreign

Ministers on the margins of the UNGA in New York in September 2006.

- South Africa was added to the grouping in 2011 creating "BRICS".
- BRICS cooperation is aimed at complementing and strengthening existing bilateral and multilateral relations among member countries.
- The **Chairship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- Cooperation among members is predicated on three levels or "tracks" of interaction, namely:
  1. **Track I:** Formal diplomatic engagement between the national governments
  2. **Track II:** Engagement through government-affiliated institutions, e.g. state-owned enterprises and business councils
  3. **Track III:** Civil society and "people-to-people" engagement.

### Significant developments of BRICS

#### New Development Bank

- The NDB created by the BRICS countries formally came into existence at the Ufa Summit (Russia) in **2015**.

- It was established with the objective of financing infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, complementing the efforts of multilateral and regional financial institutions toward global growth and development.
- In 2018, the NDB received **observer status** in the UN General Assembly.
- **Voting power** of each member is equal to the number of its subscribed shares in capital stock.
- All members of the United Nations could be members of the bank, however the share of the BRICS nations can never be less than **55% of voting power**.

#### Contingency Reserve

- The BRICS Contingent Reserve Arrangement (CRA) is a framework for the provision of support through liquidity and precautionary instruments in response to actual or potential short-term balance of payments pressures.

#### Why in News?

- Prime Minister Narendra Modi addressed the 12th BRICS summit which was held recently.

## 4) United Nations General Assembly

#### About UNGA

- United Nations General Assembly (UNGA) is the main deliberative, policymaking and representative organ of the UN.
- It is **one of the six principal organs** which make up the UN.
- All 193 Member States of the UN are represented in the General Assembly, making it the **only UN body with universal representation**.

- The annual session is attended by world leaders to discuss and debate the world's most important global issues and how to address them.

#### Voting

- **Each country has one vote.**
- Decisions on important questions, such as those on peace and security, admission of new members and budgetary matters, require a **two-thirds majority**. Decisions on other questions are by **simple majority**.

#### Why in News?

- The United Nations General Assembly has **adopted two India-sponsored resolutions on nuclear disarmament** which aim to reduce risk of nuclear accidents and call for a prohibition on the use of nuclear weapons.
- The two resolutions adopted include **Convention on the Prohibition of the Use of Nuclear Weapons** and **Reducing Nuclear Danger under the Nuclear weapons cluster**.

#### Resolution on Convention on the Prohibition of the Use of Nuclear Weapons

- This resolution was backed by a majority of UN Members and was tabled by India in 1982.
- It calls for a universal and legally binding agreement that would generate the necessary global political will that can lead to the total elimination of nuclear weapons.

#### Resolution on Reducing Nuclear Danger

- This resolution which was tabled since 1998 puts focus on unintentional or accidental use of nuclear weapons and underscores the need for a review of nuclear doctrines.
- The resolution asks for concrete steps to reduce such risks.

## Science and Technology

### 1) IRNSS

#### Indian Regional Navigation Satellite System (IRNSS) - NavIC

- IRNSS is an independent **regional navigation satellite system** developed by the **Indian Space Research Organization (ISRO)**.
- In April 2016, with the last launch of the constellation's satellite, IRNSS was renamed **Navigation Indian Constellation (NAVIC)**.

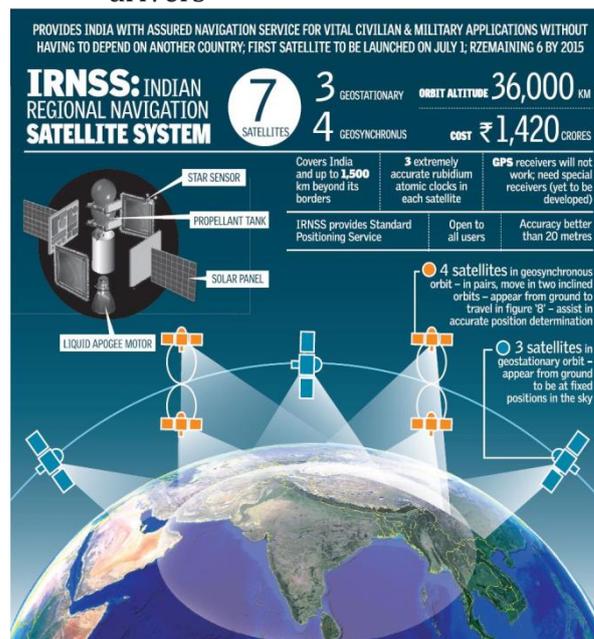
#### Range of NavIC

- It is designed to provide accurate position information service to users in India as well as the region extending up to **1500 km from its boundary**, which is its **primary service area**.
- Beyond that lies an **Extended Service Area** that can extend up to the edges of the area enclosed by the rectangle imagined by latitudes 30 degrees south and 50 degrees north, and longitudes 30 degrees east and 130 degrees east.
- IRNSS will provide **two types of services**, namely, **Standard Positioning Service (SPS)** which is provided to all the users and **Restricted Service (RS)**, which is an encrypted service provided only to the authorised users.
- The IRNSS System is expected to **provide a position accuracy of better than 20 m** in the primary service area.
- The space segment consists of the IRNSS **constellation of eight satellites** (with one being a replacement). Three satellites are located in the **geostationary orbit** and the remaining four are located in **geosynchronous orbits**.

#### Applications

- Applications of IRNSS include:
  - Terrestrial, Aerial and Marine Navigation
  - Disaster Management

- Vehicle tracking and fleet management
- Integration with mobile phones
- Precise Timing
- Mapping and Geodetic data capture
- Terrestrial navigation aid for hikers and travellers
- Visual and voice navigation for drivers



#### Why in News?

- The **International Maritime Organisation (IMO)** has recognised IRNSS as a part of the **World Wide Radio Navigation System (WWRNS)**.

#### What does the IMO's recognition mean?

- The IMO is the **United Nations' specialised agency** responsible for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.
- The Maritime Safety Committee (MSC) of the IMO recognised the IRNSS as a component of the WWRNS.
- With the recognition as a component of the WWRNS, the **Indian navigation system is similarly placed as GPS**, most commonly used by marine shipping vessels across the world or the **Russian Global Navigation Satellite System (GLONASS)**.

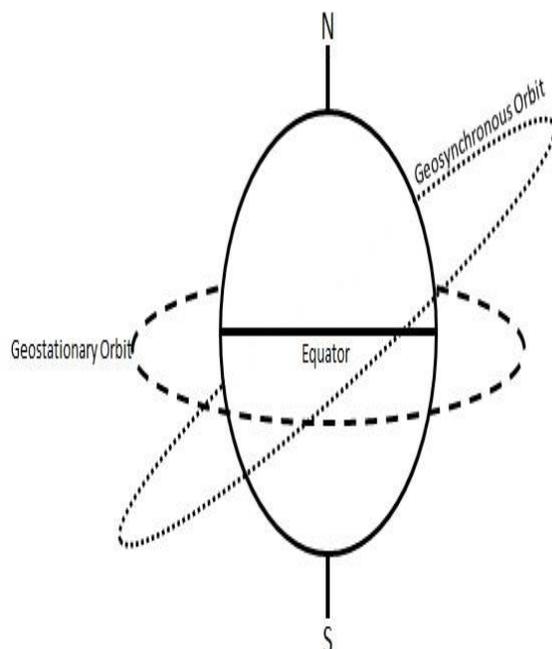
- After **the US, Russia and China (BeiDou)** that have their own navigation systems, India has become the fourth country to have its independent regional navigation system.
- Unlike GPS, however, **IRNSS is a regional and not a global navigation system.**

#### Why was it necessary for India to have its own navigation system?

- An **overdependence on one system (GPS) cannot be safe.** The IMO had encouraged countries to design their own navigation systems.
- While the system will be open to all including security agencies, officials of the Directorate General of Shipping said as of now, all merchant vessels including small fishing vessels are authorised to use the system.
- Vessels that have transponders installed in them will be tracked by satellite navigation showing accurate position in the Indian Ocean region.

#### Related information

#### Geostationary vs Geosynchronous orbits



#### Geosynchronous Orbit

- The orbit around the Earth with an orbit period equal to **one sidereal day** (i.e. 23 hrs, 56 minutes, 4 seconds) is known as geosynchronous orbit. The word "synchronous" means an object in this orbit returns to the same position after a period of 1 sidereal day to the observer on the Earth's surface.
- There are **many such orbits around the Earth.** It may be **circular or non-circular types.**
- Geosynchronous satellites have an **inclination with respect to the equator.**

#### Geostationary Orbit

- The circular orbit at an **altitude of 35768 Kms above the equator** of the Earth which **follows the direction of rotation of the Earth** is known as geostationary orbit.
- **Object in this orbit has a period equal to the rotation period of the earth.** Hence it appears motionless from earth or at fixed position to observers on the ground w.r.t. his/her position. Hence the word "stationary".
- There is **only one such orbit** around the Earth.
- It is one **type of geosynchronous orbit.** It is a **circular orbit.**
- Geostationary satellites have **zero inclination with respect to the equator.**

## 2) Plasma Therapy

#### What is Plasma Therapy for COVID-19?

- Plasma Therapy involves **transfusion of antibodies** from someone who has recovered from COVID-19 into a critical patient.
- The therapy is based on the principle that the blood of a recovered patient is rich in antibodies needed to combat COVID-19.
- Antibodies are Y shaped proteins produced by a human body and used by the immune system to identify and neutralise foreign objects such as bacteria and viruses. These antibodies

are expected to help critical patients recover.

- It is a **way of artificially inducing passive immunity**.

#### How does plasma therapy work?

- Blood plasma, a yellowish liquid is a component of blood and consists of protein, minerals and antibodies.
- If someone has recovered from COVID-19 there are chances that the person's body has developed antibodies that helped him/her to fight the virus.
- The same antibodies, if infused into a critical patient may provide passive immunity and help in the recovery process.

#### Why in News?

- The Indian Council of Medical Research (ICMR) has warned against indiscriminate use of plasma therapy for treating COVID-19.
- The ICMR has released a report which concluded that the **therapy did not lead to a reduction in progression to severe COVID or all-cause mortality** in the group that received plasma therapy as compared to the group that did not receive such treatment.

### 3) Dark matter & Dark energy

#### Dark matter

- Dark Matter refers to the hypothetical matter that scientists have not been able to locate in the universe - either through telescopes or using any other technological method.
- Dark matter works like an **attractive force** — a kind of cosmic cement that holds our universe together. This is because dark matter does interact with gravity, but it doesn't reflect, absorb or emit light.
- Unlike normal matter, **dark matter does not interact with the electromagnetic force**. As a result, it **does not absorb, reflect or emit light**, making it extremely hard to spot.

- In fact, researchers have been able to infer the existence of dark matter only from the gravitational effect it seems to have on visible matter.
- In the 1930s, astronomer **Fritz Zwicky** speculated the presence of "dark matter" for the first time.

#### Dark energy

- Dark energy is a **repulsive force** — a sort of anti-gravity — hypothesised to be responsible for the accelerated expansion of the Universe.
- Like Dark Matter, Dark Energy is **not directly observed**, but rather inferred from observations of gravitational interactions between astronomical objects.
- Dark energy is the far more dominant force of the two, accounting for roughly **68 percent** of the universe's total mass and energy. **Dark matter makes up 27 percent**. And the rest — a measly 5 percent — is all the regular matter we see and interact with every day.
- Current hypotheses propose dark energy might emerge from the bubbling of empty space, a small effect that is also widespread, making it powerful enough to drag apart clusters of galaxies without ripping them apart from within.

#### What's in the news?

- The **Hubble Space Telescope** has discovered **excessive presence of dark matter** in the spiral galaxy NGC 5585.

#### Related Information

##### About Hubble Space Telescope

- The Hubble Space Telescope is a large telescope in space. It was launched into orbit by space shuttle Discovery in **1990**.
- Hubble orbits about 547 kilometers (low Earth orbit) above Earth. Hubble is **solar-powered**.
- As Hubble orbits above Earth's atmosphere, it gives a better view of

the universe than telescopes have at ground level.

- Images taken by Hubble have helped scientists **estimate the age and size of the universe**. Hubble has also detected the **presence of black holes**.
- It is operated by the **European Space Agency (ESA) and the National Aeronautics and Space Administration (NASA)**.

#### 4) EOS-01 satellite launched

##### Why in the news?

- India has successfully launched its latest **earth observation satellite EOS-01** and nine international customer spacecraft on board the **PSLV-C49** from Satish Dhawan Space Centre (SDSC), Sriharikota.
- It is ISRO's first mission in 2020 amid the COVID-19 pandemic. For the **PSLV**, this was the **51st flight**. Only two of its launches have not been successful.

##### About EOS-01

- EOS-01, is another **Radar Imaging Satellite (RISAT)** that will work together with RISAT-2B and RISAT-2BR1 launched in 2019. It uses **synthetic aperture radars** to produce high-resolution images of the land.
- One big advantage of these radar imaging over optical instruments is that it is **unaffected by weather, cloud or fog, or the lack of sunlight**. It can produce high-quality images in all conditions and at all times.
- The EOS-01 is intended for **applications in agriculture, forestry and disaster management support**.
- Land and forest mapping and monitoring, mapping of resources like water or minerals or fishes, weather and climate observations, soil assessment, geospatial contour mapping are all done through earth-observation satellites.

##### Related Information

##### About PSLV

- The Polar Satellite Launch Vehicle (PSLV) is a third-generation rocket launcher **designed, manufactured and operated by the ISRO**.
- It is the first Indian launch vehicle to be equipped with **liquid stages**.
- Besides, the vehicle successfully launched two spacecraft – **Chandrayaan-1** in 2008 and **Mars Orbiter Spacecraft (Mangalyaan)** in 2013 – that later traveled to Moon and Mars respectively.
- Another notable feature was the launch of **PSLV C37** in 2017 successfully deploying 104 satellites in sun-synchronous orbit.

##### Technical aspects



- PSLV has a **four-stage system** comprising a combination of solid and liquid-fuelled rocket stages.
- The first stage at the very bottom is **solid fuelled** having six strap-on solid rocket boosters wrapped around it. Second stage is **liquid fuelled (Vikas liquid engine)** whereas the third stage has a **solid fuelled** rocket motor. At the fourth stage, the launcher uses a **liquid propellant** to boost in outer space.
- PSLV earned its title '**the Workhorse of ISRO**' through consistently delivering various satellites to Low Earth Orbits.

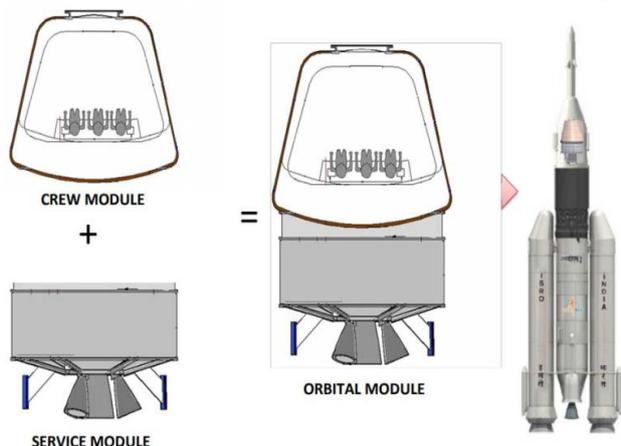
- PSLV has a payload capacity of **1,050 kg** for launching into the Geosynchronous Transfer Orbit and **1,600 kg** for the Polar Sun Synchronous Orbit.
- The PSLV is also capable of placing multiple payloads into orbit, thus multi-payload adaptors are used in the payload fairing.

## 5) Mission Gaganyaan

### About the Mission

- Gaganyaan is the **first Indian Human Space Flight Programme (HSP)** originally scheduled for **2022** when India completes 75 years of Independence. (ISRO chief K Sivan recently said that the mission was being delayed because of COVID-19 outbreak)
- Announced by Prime Minister Narendra Modi in 2018, it is designed to have **3-7 crew members** who will spend **3-7 days in space** in a **400-km orbit (Low Earth Orbit or LEO)**.
- The spacecraft, which is being developed by the **Indian Space Research Organisation (ISRO)**, consists of a service module and a crew module, collectively known as the Orbital Module.

### GAGANYAAN : SYSTEMS



- With this, **India could potentially become the fourth country to send a man to space**, after the erstwhile USSR, the US and China. (Denmark also

has a manned space flight scheduled for 2022)

- The first of the two pre-Gaganyaan flights with a **humanoid** will be launched soon along with some of the six shortlisted micro-gravity experiments.
- **GSLV Mk III**, the three-stage heavy lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.
  - *GSLV Mk III is designed to carry 4 tonne class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tonnes to Low Earth Orbit (LEO). The powerful cryogenic stage of GSLV Mk III enables it to place heavy payloads into LEO's of 600 km altitude.*

### Recent developments

- Four pilots from the Indian Air Force (IAF) were shortlisted to receive training as astronauts of Gaganyaan.
- The chosen astronauts have begun their 12-month training at the **Gagarin Research and Test Cosmonaut Training Centre (GCTC)** in Moscow.
- ISRO unveiled its first 'woman' astronaut '**Vyomamitra**', a **Lady robot**. It is a **half-humanoid**. Vyommitra will ride to space in the first test flight of the human space mission, Gaganyaan.
- The humanoid will simulate the human functions required for space before real astronauts take off before August 2022.

### Why in News?

- As part of steps to deepen cooperation in civil space activities, the **space agencies of India and Australia** are working together to position temporarily Indian tracking facilities in Australia.
- This would support India's Gaganyaan Mission.

## 6) PARAM Siddhi

### About

- PARAM Siddhi is a high performance computing-artificial intelligence (HPC-AI) supercomputer established earlier in 2020 under **National Supercomputing Mission (NSM)** at **Centre for Development of Advanced Computing (C-DAC)**.
- The supercomputer with Rpeak of 5.267 Petaflops and 4.6 Petaflops Rmax (Sustained) was conceived by C-DAC and developed jointly with support of **Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MeitY)** under NSM.
  - *In high-performance computing, Rmax and Rpeak are scores used to rank supercomputers based on their performance. A system's Rmax score describes its maximal achieved performance; the Rpeak score describes its theoretical peak performance.*
  - *A petaflop is the ability of a computer to do one quadrillion ( $10^{15}$ ) floating point operations per second (FLOPS).*

#### Applications of PARAM Siddhi

- With the infusion of Param Siddhi-AI, the scientific and technology community in the country will further be enabled and empowered to solve multidisciplinary grand challenges of **healthcare, agriculture, education, energy, cybersecurity, space, AI applications, weather and climate modelling, urban planning, etc.**
- The AI system will strengthen application development of packages and will help testing of weather forecasting packages, geo-exploration packages for oil and gas recovery; packages for aero-design studies; computational physics and mathematical applications and even online courses for education.

#### Why in News?

- **India's newest and fastest supercomputer, PARAM-Siddhi AI,**

has been ranked 63rd in the Top500 list of most powerful non-distributed computer systems in the world.

- *A non-distributed computer system has all its components at a single location.*
- The Top500 project tracks the most powerful supercomputers in the world, and is published twice a year.

#### Pratyush & Mihir

- PARAM-Siddhi is the second Indian supercomputer to be entered in the top 100 on the Top500 list.
- **Pratyush**, a supercomputer used for weather forecasting at the Indian Institute of Tropical Meteorology, ranked 78th on the November edition of the list.
- Another Indian supercomputer, **Mihir** (146th on the list), clubs with Pratyush to generate enough computing power to match PARAM-Siddhi.

#### Global Rankings

- Japanese supercomputer **Fugaku** (442 petaflops) and **IBM's Summit** (148.8 petaflops) are the two most powerful supercomputers in the world, according to the Top500 list.

#### Related Information

##### National Supercomputing Mission

- The National Supercomputing Mission was announced in **2015**, with an aim to **connect national academic and R&D institutions with a grid of more than 70 high-performance computing facilities** at an estimated cost of ₹4,500 crore.
- The mission is implemented by the Department of Science and Technology and Department of Electronics and Information Technology (DeitY) through Centre for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bangalore.
- The Mission also includes **development of highly professional High Performance Computing (HPC) aware human resource** for meeting

challenges of development of these applications.

#### About C-DAC

- Founded in 1988, the Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the **Ministry of Electronics and Information Technology (MeitY)** for carrying out R&D in IT, Electronics and associated areas.
- C-DAC has been the forerunner of the ICT revolution in India. C-DAC is also creating the peripheral frameworks required for high performance computing (HPC)-AI, which can be used by startups and researchers in the country.

### 7) Anti Satellite Missile

#### About ASAT

- Anti-Satellite (ASAT) Missile is a **missile-based system to attack moving satellites**.
- It is of 2 kinds— based on launching from the ground or from planes.

#### About Mission Shakti

- In March 2019, the **Defence Research and Development Organisation (DRDO)** conducted 'Mission Shakti', an Anti-satellite missile test.
- Under the test, DRDO successfully launched an interceptor missile to destroy a low-earth orbit satellite in space, in a 'hit-to-kill' mode. The test was done in the **lower atmosphere** to ensure that there is no space debris.
- India is only the **4th country** to demonstrate such a specialised and modern capability.

#### Need for ASAT

- The capability achieved through the Anti-Satellite missile test provides **credible deterrence against threats to our growing space-based assets** from long range missiles, and proliferation in the types and numbers of missiles.

### What is the international law on weapons in outer space?

- The principal international Treaty on space is the **1967 Outer Space Treaty**.
- India is a signatory to this treaty, and **ratified** it in 1982.
- The Outer Space Treaty prohibits only weapons of mass destruction in outer space, not ordinary weapons. Thus, India was not in violation of any international law or Treaty to which it is a Party.

#### Why in News?

- Defence Minister Rajnath Singh inaugurated a model of an anti-satellite missile at the DRDO Bhawan premises.

### 8) Thirty Metre Telescope

#### What is it?

- The Thirty Meter Telescope is a new class of extremely large telescopes that will allow us to see deeper into space and observe cosmic objects with unprecedented sensitivity.
- It is being installed at Mauna kea in **Hawaii**.



- With its 30 m prime mirror diameter, TMT will be three times as wide, with nine times more area than the largest currently existing visible-light telescope in the world.
- This will provide unparalleled resolution with TMT images more than 12 times sharper than those from the **Hubble Space Telescope**.
- Once it is built, the TMT will become the **world's largest ground-based telescope operating at optical and**

**infrared wavelengths**, allowing astronomers to study the outer reaches of the universe and study distant stars and exoplanets in much greater detail than is currently possible.

#### Who is building TMT?

- The Thirty Meter Telescope is being designed and developed by the **TMT International Observatory LLC (TIO)**.
- The TIO is an international collaboration of research institutions and national governments including **the USA, Japan, China, India and Canada**.

#### Benefits of TMT

- It will allow astronomers to explore the mysterious period in the life of the universe when the first stars and galaxies were formed.
- One of its key uses will be the **study of exoplanets**, many of which have been detected in the last few years, and whether their atmospheres contain water vapour or methane — the signatures of possible life.
- TMT will also observe the formation and development of the large-scale structures by looking at faint **distant galaxies** and the intergalactic medium.
- It has capability to detect and investigate **black holes** that reside in the center of many distant galaxies, as well as study in detail the black hole in the center of our own Milky Way.

#### Why in News?

- The Department of Science & Technology said that 2020 Physics Nobel Laureate Prof. Andrea Ghez had worked closely with Indian astronomers on the design of back-end instruments and possible science prospects of the Thirty Meter Telescope project.

## 9) Noctiluca Scintillans

### Noctiluca Scintillans

- *Noctiluca Scintillans* is one of the most commonly occurring **bioluminescent organisms** in coastal regions of the world.
  - *Bioluminescence is the production and emission of light by a living organism and occurs **due to a chemical reaction**, involving a light-emitting molecule and an enzyme, called luciferin and luciferase. It is also called Sea Sparkle.*
- *N. Scintillans* graze on other micro-organisms such as larvae, fish eggs, and diatoms. The **unicellular phytoplankton** that lives inside it can photosynthesise, turning sunlight into energy. They help their host cell survive even when food is scarce. Thus, *N. Scintillans* **act as both a plant and an animal**.
- It produces **high amounts of Ammonia as a part of excretion**.

#### Why in News?

- The Karnataka coast has been witnessing the bloom of *Noctiluca Scintillans* for about a month.
- Scientists have found that the bloom of *N. Scintillans* has displaced microscopic algae called **diatoms**, which form the basis of the marine food chain. This has **deprived food for the planktivorous fish**.
- The toxic blooms of *N. Scintillans* were also linked to **massive fish and marine invertebrate kills**. Though the species does not produce a toxin, it was found to **accumulate toxic levels of ammonia**, which is then excreted into the surrounding waters, possibly acting as the killing agent in blooms.

## 10) Kala Azar

### What is it?

- Kala-azar or visceral leishmaniasis (VL) is a **tropical parasitic disease** characterised by irregular fever, weight loss, anaemia and swelling of the spleen and liver.

- A chronic and potentially fatal disease, VL is caused by a **protozoan Leishmania parasite** and is transmitted to humans by the bite of infected **female sandflies**.
- According to WHO, globally, about 7 to 10 lakh new cases occur annually.
- **India accounts for about two-thirds** of the total global cases, and the disease is **endemic to Bihar, Jharkhand, Uttar Pradesh and West Bengal**.
- Kala azar is one of the most dangerous **neglected tropical diseases (NTDs)**.

#### WHO initiative

- An initiative was launched by WHO to eliminate VL as a public health problem from the South East Asia region by 2020. The deadline has now been **extended to 2023**.

#### Why in News?

- A recent paper published recently tells the success story of how they **eliminated VL from Vaishali**, a district in Bihar where the disease is highly endemic (22% in the district get affected by VL each year).
- An integrated control strategy helped reduce the number of cases from 664 in 2014 to 163 in 2016.
- A disease is considered eliminated when the annual incidence is reduced to less than 1 case per 10,000 people at the sub-district or block level. Eradication would mean there are zero cases.

#### Integrated control strategy

- The programme included **mapping of the case distribution, early case**

**detection and chemical-based vector control.** The district administration also carried out **community awareness campaigns**.

- Hospital staff and medical doctors in these regions were trained specifically to treat the disease. Nearly 2,500 ASHA workers and 1,000 field workers were also trained.

#### Related Information

##### Neglected tropical diseases

- Neglected tropical diseases (NTDs) are a **diverse group of communicable diseases** that prevail in **tropical and subtropical conditions** in 149 countries which will affect more than one billion people and cost developing economies.
- Populations living in poverty without adequate sanitation and in close contact with infectious vectors and domestic animals and livestock are those worst affected.
- They are called "neglected" because they generally afflict the world's poor and historically have not received as much attention as other diseases.
- More than 70% of countries and territories that report the presence of neglected tropical diseases are low-income or lower middle-income economies.
- NTD includes Dengue, Blinding trachoma, Human dog-mediated rabies, Leprosy (Hansen disease), Endemic treponematoses (yaws), Human African trypanosomiasis (sleeping sickness), Leishmaniasis, Lymphatic filariasis, etc.

## Reports and Indices

### 1) IPBES Report on Pandemics

#### What is IPBES?

- The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is an **independent intergovernmental body** which aims to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- It was established in Panama City, on 21 April 2012 by 94 Governments. **It is not a United Nations body.**
- However, at the request of the IPBES Plenary and with the authorization of the UNEP Governing Council in 2013, the **United Nations Environment Programme (UNEP) provides secretariat services to IPBES.**
- IPBES currently has 137 member States (including **India**).

#### Why in the news?

- IPBES has released a new report which says that the world will face frequent pandemics and humans may be killed more.

#### Highlights of the Report

- IPBES notes that **COVID-19 is at least the sixth pandemic** to have taken place in the last century since the Great Influenza Pandemic of 1918.
  - *According to WHO, a pandemic is defined as “an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people”.*
- **Human damage to biodiversity is leading us into a pandemic era.** The virus that causes COVID-19, for example, is linked to similar viruses in bats, which may have been passed to humans via pangolins or another species.

- **About 70% of the infections are coming from animal sources** which are due to contact among wildlife, livestock and people.
- And about 30 percent of emerging infectious diseases are attributed to **land use change, agricultural expansion, urbanisation and the wildlife trade.**
- There are over 1.7 million currently ‘undiscovered’ viruses that exist in mammals and birds, out of which up to 827,000 could have the ability to infect people.

#### How can pandemic risk be reduced?

- The pandemic risk can be lowered by:
  - ✓ Global implementation of **OneHealth policies** – policies on human health, animal health and the environment which are integrated, rather than “siloes” and considered in isolation;
  - ✓ Greater conservation of protected areas;
  - ✓ Measures that reduce unsustainable exploitation of high biodiversity regions;
  - ✓ Launching a **high-level intergovernmental council** on pandemic prevention;
  - ✓ Controlling international wildlife trade;
  - ✓ **Societal and individual behaviour change** will also be needed. Exponential growth in consumption, often driven by developed countries, has led to the repeated emergence of diseases from less-developed countries where the commodities are produced.
- The above measures will **reduce the contact between wildlife-livestock and humans**, thereby helping prevent the spill-over of new diseases.

# Polity

## 1) District Development Councils

### What's in the news?

- The Centre has amended the Jammu and Kashmir Panchayati Raj Act, 1989, to facilitate the setting up of **District Development Councils (DDC)** in all districts of J&K, whose members will be directly elected by the people.
- This is the first time such councils have been established in the country.

### DDCs & DPCs

- The District Development Councils are set to become a **new unit of governance in Jammu and Kashmir**.
- The new structure will also include the constitution of **District Planning Committees (DPC)**. The aim of these two bodies is to enhance grassroots level democracy in Jammu and Kashmir.
- This system effectively **replaces the District Planning and Development Boards in all districts in J&K**, and will prepare and approve district plans and capital expenditure.

### Composition of DDCs

- Under the new mechanism, **every district will be divided into 14 territorial constituencies** that will directly elect the members for the DDCs.
- These members will then elect the **chairperson and vice-chairperson** of the DDC, who will then administer the district.
- The **Members of Legislative Assemblies (MLAs)** and **chairpersons of Block Development Councils (BDC)** will also be members of the DDCs.
- The electoral process will allow for **reservations for Scheduled Castes, Scheduled Tribes and women**.
- The term of the DDC will be **five years**.

### Voting power

- **All members of DDCs**, whether or not elected by direct election from territorial constituencies in the district, **will have the right to vote in the meetings of the council**.
- But **only 14 elected members** will have the power to elect or remove the chairperson and vice chairperson.

### Jurisdiction of DDCs

- The DDCs will have **complete jurisdiction of the district except over the areas controlled by a municipality and municipal corporation**.
- The council will hold at least four "general meetings" in a year, one in each quarter.

### Significance

- The move to have an elected third tier of the Panchayati Raj institution is expected to **enhance grassroots level democracy in Jammu and Kashmir**.
- In the absence of elected representatives in the UT, DDCs will effectively become representative bodies for development at the grassroots in the districts of J&K.

### District Planning Committee

- Each district will also have a District Planning Committee, which will include:
  - The **Members of Parliament (mps)** and **Members of Legislative Assemblies (mlas)** of areas within the district,
  - **Chairperson of the DDC,**
  - **Chairpersons of the town area committees or district municipal committees,** along with a few other government officials.

### Functions of DPC

- The District Planning Committee will "consider and guide" the formulation of development programmes for the district.
- It would indicate priorities for various schemes and consider issues relating

to the speedy development and economic uplift of the district.

- It would function as a working group for formulation of periodic and annual plans for the district; and formulate and finalise the plan and non-plan budget for the district.

### Criticisms

- The move is widely seen as **nullifying the role of the established Panchayati Raj institutions** of gram panchayats and BDCs. As DDC will control the development activities in the district, Panchayat and BDC members will have to compete for power with DDC members.
- DDCs are being set up as an alternative to an elected government but they can **hardly replace an elected government** which alone has a political function and can represent the broad grievances and aspirations of the people.

## 2) Forest rights Act

### About the Act

- The Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006 is a people-centric law for forests, which **recognises the rights of forest-dwelling communities to use and manage forest resources**.
- With more than 150 million forest dwellers, the scope of FRA is immense to protect their livelihoods, and engage them in sustainable forest management.

### Rights under FRA

- **Title rights** – Ownership to land that is being farmed by tribals or forest dwellers subject to a maximum of **4 hectares**; ownership is only for land that is actually being cultivated by the concerned family, meaning that no new lands are granted.
- **Use rights** – to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.

- **Relief and development rights** – to rehabilitation in case of illegal eviction or forced displacement; and basic amenities, subject to restrictions for forest protection.
- **Forest management rights** – to protect forests and wildlife.

### Eligibility

- To qualify as **Other Traditional Forest Dweller (OTFD)** and be eligible for recognition of rights under FRA, two conditions need to be fulfilled:
  - Primarily resided in forest or forests land for three generations (75 years) prior to 13-12-2005, and
  - Depend on the forest or forests land for bonafide livelihood needs.
- To qualify as a **Forest Dwelling Scheduled Tribe (FDST)** and be eligible for recognition of rights under FRA, three conditions must be satisfied by the applicant/s, who could be **“members or community”**:
  - Must be a Scheduled Tribe in the area where the right is claimed; and
  - Primarily resided in forest or forests land prior to 13-12-2005; and
  - Depend on the forest or forests land for bonafide livelihood needs.
- The FRA provides that a forest right conferred under the Act shall be **heritable but not alienable or transferable**, and shall be registered jointly in the name of both the spouses in case of married persons and in the name of the single head in the case of a household headed by a single person.

### Process of recognition of rights

- The Act provides that the **gram sabha**, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised.
- This resolution is then screened and approved at the **level of the sub-**

**division** (or taluka) and subsequently at the **district level**.

- The **screening committees** consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals.

#### Why in News?

- The Jammu and Kashmir administration announced that the government will implement the Forest Rights Act, 2006, in the union territory to grant and safeguard the rights of forest dwellers.
- The FRA was not applicable or implemented in Jammu and Kashmir in the last 14 years due to Article 370.

### 3) National Population Register

#### What is the National Population Register?

- The National Population Register (NPR) is a **Register of usual residents of the country**.
- It is being prepared at the local (Village/sub-Town), sub-District, District, State and National level under provisions of the **Citizenship Act 1955** and the **Citizenship Rules, 2003**.
- It is **mandatory for every usual resident of India** to register in the NPR.
- A **usual resident** is defined for the purposes of NPR as a person who has resided in a local area for the **past 6 months or more** or a person who intends to reside in that area for the next 6 months or more.

#### Present Status

- The data for the NPR is generated through house-to-house enumeration during the “house-listing” phase of the census, which is held once in 10 years.
- It was **collected in 2010** along with the house listing phase of Census of India 2011. The update of this data was

done during **2015** by conducting a door to door survey.

- Now, the government has decided to update the NPR along with the House listing phase of Census 2021 in all the States/UTs **except Assam**.
- Assam has been excluded because the **National Register of Citizens (NRC)** exercise has already been conducted in the state.
- Both the NPR and Census are conducted by the **Office of the Registrar General** under the **Ministry of Home Affairs**.

#### What kind of data will NPR collect?

- NPR will collect both **demographic data and biometric data**. For biometric data it will depend on Aadhaar, for which it will seek Aadhaar details of the residents.

#### Why does the government want so much data?

- The objective of the NPR is to create a **comprehensive identity database of every usual resident in the country**. It will help the government formulate its policies better and also aid national security.
- It will streamline data of residents across various platforms and ease the life of those residing in India by cutting red tape.

#### How NPR differs from population census?

- The decennial census is the largest single source of a variety of statistical information on different characteristics of all persons in the country. The process began for the first time in **1872** when India was still under colonial rule.
- The Census is carried out under the **Census Act, 1948**.
- As opposed to this, the exercise of creating and maintaining a NPR began in the year **2010** to create a registry of usual residents of the country. NPR is conducted under the **Citizenship Act**

### 1955 and the Citizenship Rules, 2003.

- The Census data **does not aim to collect information about individuals** but to give an overall picture of the status or condition of residents of India and the overall population trends.
- The purpose of collecting and analysing Census data is that it **informs planning and policy, and helps in assessing the impact of existing government policies.**
- While the Census Act makes it **compulsory for the government to keep the data collected during census confidential and anonymous**, there is no such requirement of confidentiality for NPR data under the citizenship rules. The NPR is a register that will be in the public domain with data of individuals.

#### Why in News?

- The office of the Registrar General of India announced that the questionnaire of the National Population Register is being finalised.

## 4) Special Marriage Act

### Context

- The Special Marriage Act, 1954 (SMA) was enacted to **facilitate the marriage of couples professing different faiths and preferring a civil wedding.** However, some practical problems arise in registering such marriages.

#### What are the features of the SMA?

- Under the SMA, parties to an intended marriage should give **notice to the 'marriage officer'** of the district in which one of them had resided for at least 30 days. The notice will have to be entered in a 'Marriage Notice Book' and a copy of it **displayed at a conspicuous place** in the office. The Notice Book is open for inspection at all reasonable times without a fee.

- The law also provides for **objections to the marriage.** Any person can object to the marriage **within 30 days** of the publication of the notice on the ground that it contravenes one of the conditions for a valid marriage (such as age, capacity to consent, incest, etc.).
- The marriage officer has to inquire into the objection and give a decision within 30 days. If he refuses permission for the marriage, an appeal can be made to the district court. The court's decision will be final.
- Also, the Act says that when a member of an undivided family who professes **Hindu, Buddhist, Sikh or Jaina religions**, gets married under SMA, it results in his or her "severance" from the family.

#### What are the hurdles faced by couples?

- The provisions relating to notice, publication and objection have rendered it difficult for many people intending to solemnise inter-faith marriages.
- Publicity in the local registration office may mean that family members objecting to the union **may seek to stop it by coercion.** In many cases, there may be a **threat to the lives of the applicants.**
- There have been reports of some groups opposed to inter-faith marriages keeping a watch on the notice boards of marriage offices and taking down the details of the parties so that they can be dissuaded or coerced into abandoning the idea.
- These provisions have been challenged in the Supreme Court recently on the grounds that they **violate the privacy of the couples, their dignity and right to marry.**
- In the case of **Hindu and Muslim marriage laws**, there is no requirement of prior notice and, therefore, such a requirement in the SMA, say experts, violates the right to

equality of those opting for marriage under it.

### What are the other options for registration of inter-faith marriages?

- Many opt for inter-faith marriages through the relevant personal law of the faith of one of the parties. This will involve one of them **converting to the religion professed by the other**.
- While conversion to Islam and Christianity has formal means, there is no prescribed ceremony for conversion to Hinduism.
- The Hindu Marriage Act is also applicable to “any person who is a convert or re-converts to the **Hindu, Buddhist, Jaina or Sikh religion**”.

### Why in News?

- In a recent judgement, the Allahabad High Court has held that publishing a notice and inviting objections before a couple decides to marry under the Special Marriage Act are **no longer mandatory**. The court observed that these rules went **against fundamental rights** and **infringed upon one's ability to choose to marry without intervention**.
- The court has now said a couple while giving the 30-day notice under the law can request the marriage officer to publish or not publish it for inviting objections.
- The court, however, left it open for the marriage officer to verify the identification, age and valid consent of a couple while solemnising any marriage.

## 5) Competition Commission of India

### Competition Act, 2002

- The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition,

acquiring of control and Mergers and acquisitions), which causes or likely to cause an appreciable adverse effect on competition within India.

- The objectives of the Act are sought to be achieved through the **Competition Commission of India**, which has been established by the Central Government in 2003.

### About CCI

- The Competition Commission of India (CCI) is a **statutory body** established under the **Competition Act, 2002** for the administration, implementation and enforcement of the Act.
- CCI consists of a **Chairperson and 6 Members** appointed by the Central Government.
- The following are the objectives of the Commission.
  - To prevent practices having adverse effects on competition
  - To promote and sustain competition in markets
  - To protect the interests of consumers and
  - To ensure freedom of trade
- The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

### Why in News?

- The Competition Commission of India ordered a detailed probe against Google for abuse of its dominant position, primarily with regard to its digital payments application GPay.

## 6) CBI general consent

### Central Bureau of Investigation

- The precursor to the CBI was the **Special Police Establishment**, which was India's first agency to investigate corruption. It was set in **1941** by the British.

- In **1963**, the Home Ministry expanded its power and changed its name to the **Central Bureau of Investigation**. It is governed by the **Delhi Special Police Establishment Act (DSPE), 1946**.
- The CBI was established with a view to investigate serious crimes related to Defence of India, corruption in high places, serious fraud, cheating and embezzlement and social crime, particularly of hoarding, black-marketing and profiteering in essential commodities, having all-India and inter-state ramifications.
- CBI acts as an **interface** between the law enforcement agencies of India and other countries to ensure cooperation. It facilitates exchange and sharing of information by these agencies.

#### Supervision over CBI

- The superintendence of CBI related to investigation of offences under the Prevention of Corruption Act, 1988 lies with the **Central Vigilance Commission (CVC)** and in other matters with the **Department of Personnel & Training (DOPT)** in the Ministry of Personnel, Pension & Grievances.

#### NIA vs. CBI

- The **National Investigation Agency** (*Refer Pulse October 2020 edition*) has been constituted after the Mumbai terror attack in **November 2008** mainly for investigation of incidents of terrorist attacks, funding of terrorism and other terror related crime, whereas CBI investigates crime of corruption, economic offences and serious and organized crime other than terrorism.

#### CBI Director

- Before the Lokpal Act was legislated, the CBI director was appointed by the DSPE Act. Now, the **Lokpal Act** governs the appointment of the CBI director.
- At present, the CBI director is appointed by the Centre on the basis of

the recommendation of a **search committee** comprising:

- The Prime Minister as the chairperson,
- The Chief Justice of India and
- The Leader of Opposition.
- In the absence of a formal Leader of Opposition in the Lok Sabha, **the leader of the floor of the largest opposition party** takes part in the search committee meetings.

#### What is general consent?

- Unlike the National Investigation Agency, which is governed by its own NIA Act and has jurisdiction across the country, the CBI is governed by the **Delhi Special Police Establishment Act, 1946** which grants the CBI power to investigate a case in Delhi, without any permission, since it is part of the Centre.
- However, in all the states, the CBI needs the **consent of the state** to investigate any case relating to that state or having jurisdiction of that state.
- The Central police cannot investigate or enter the state without the consent since **police and public order are state subjects** and the Centre cannot intervene in law and order matters.
- The CBI can initiate *suo motu* investigations only in **Union Territories**, under section 2 of the DSPE Act.
- The **Supreme Court and High Courts**, however, can order the CBI to investigate such a crime anywhere in the country without the consent of states.

#### Types of consent

- There are **two kinds of consent: case-specific and general**.
  - “General consent” is normally given to help the CBI seamlessly conduct its investigation into cases of corruption against central government employees in the

concerned state. Almost all states have given such consent.

- Otherwise, the CBI would require consent in every case.

### Why in News?

- The Kerala government has decided to withdraw the general consent accorded to the Central Bureau of Investigation to operate in Kerala.

### What does withdrawal mean?

- It means the CBI will not be able to register any fresh case involving a central government official or a private person stationed in Kerala without getting case-specific consent.
- However, **there will be no bar on investigation into cases that are already being probed** by the CBI. The CBI cannot file any new FIRs in any new cases.
- Also, cases registered anywhere else in the country, but involving people stationed in Kerala, would allow CBI's jurisdiction to extend to the state.

### Previous instances

- States including West Bengal, Andhra Pradesh, Rajasthan and Maharashtra have also similarly withdrawn consent to the CBI to operate in their respective jurisdictions freely.
- However, the government of YS Jagan Mohan Reddy, which came into power in Andhra in 2019, reversed the decision.

## 7) One nation, One election

### What is the 'One Nation One Election' system?

- One Nation One Election proposes that **simultaneous elections be held in all states and the Lok Sabha in a gap of five years**. The idea behind it is envisaging an amendment in the entire electoral system of the country where **elections to the states and Centre synchronise**.
- Listed voters shall cast their votes at the same time and the same day for both Lok Sabha and state assemblies.

### History

- Simultaneous polls to states and Lok Sabha is not a newly conceived norm. In fact, simultaneous elections have previously been conducted in India in **1952, 1957, 1962 and 1967**.
- Soon after, this norm was discontinued following the dissolution of some Legislative Assemblies between 1968-69. Since then, the Indian Electoral system holds polls to Centre and states separately.

### Early explorations of the idea

- The idea of reverting to simultaneous polls was mooted in the annual report of the **Election Commission in 1983**.
- In 2015, the **Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice**, headed by **E M Sudarsana Natchiappan**, prepared a report on holding simultaneous elections. The report said that simultaneous elections would help to reduce:
  - ✓ The **massive expenditure** that is currently incurred for the conduct of separate elections,
  - ✓ The **policy paralysis** that results from the imposition of the model code of conduct during election time,
  - ✓ The impact on the **delivery of essential services** and,
  - ✓ The **burden on crucial manpower** that is deployed during election time.

### What are the arguments in favour of simultaneous elections?

- It is principally an **argument for efficiency**.
- The Election Commission implements a **Model Code of Conduct** before every poll that lays down how parties and candidates should conduct themselves during the electoral process. To prevent parties in government from taking unfair advantage of the administrative apparatus under their control, the **code prevents the**

### **announcement of new schemes and policies.**

- By implementing simultaneous polls, the argument is that the **time lost to the model code would come down.**
- **NITI Aayog** in one of its reports argued that from the perspective of the Government, simultaneous elections would **reduce the cost of holding elections**, and limit all elections to a single season.
- It is also argued that frequent elections also **prevent governments from thinking of long-term policies.** Simultaneous elections would fix this. If simultaneous polls do reduce the duration of conducting polls, political parties will have ample time to address national issues and enhance governance.
- Simultaneous polls will **boost voter turnout**, according to the Law Commission.

### **Arguments against 'One Nation One Election'**

- The primary cause of concern amongst parties that have opposed simultaneous polling is that of **Constitutional difficulties and anti-federal consequences.**
- It is argued that simultaneous polls could help parties that have a multi-state presence.
- A **study by the public-policy think tank IDFC Institute** analysed electoral data from four Lok Sabha elections – 1999, 2004, 2009 and 2014. The data analysis shows that on average, there is a 77% chance that the Indian voter will vote for the same party for both the state and Centre when elections are held simultaneously, a trend that the study calls an **“undesirable impact on voter behaviour”.**
- As a result, its critics feel holding polls simultaneously will **undermine Indian federalism.**
- The other argument is that since elections will be held once in five

years, it will **reduce the government's accountability to the people.** It would place less pressure on governments to work for the voter.

- Critics argue that holding just one mega election would be **too complex an exercise** to tackle in a country as large and as complex as India. It would be a **logistical nightmare** — requiring, for example, about twice as many electronic voting machines and Voter Verifiable Paper Audit Trail machines as are used now.

### **Implementation**

- Beyond political parties going against this proposal, the main task of executing the 'one nation one election' theory lies with **unavoidable Constitutional problems.**
- Few of the important Articles that need to be amended for implementation of 'one nation one election' are:
  1. **Article 83** and **Article 172** deal with the duration of the Houses of Parliament, and guarantees a five-year term to both the elected Lok Sabha and state assemblies, unless they are dissolved sooner.
  2. **Article 85** of the Indian Constitution deals with the powers of the President to summon Parliamentary sessions, not exceeding a gap of more than six months. The President also carries the power to adjourn either House of the Parliament and the dissolution of the Lok Sabha.
  3. **Article 356** of the Indian Constitution, comes into action in case of governance and constitutional failure in a state and deals with the President' Rule.
  4. Amendments in the **People's Representation Act, 1951 (RPA Act 1951)** and the **Anti-Defection Law** must be made for organised conduct and stability in both Lok Sabha and state assemblies.

### **How can simultaneous elections be achieved?**

- Under the **Westminster system of government** that India follows, legislatures do not have fixed lifetimes. They can either be dissolved by the government, which can call for fresh elections, or expire in case a government falls and no other government can be formed.
- In order to achieve simultaneous elections, drastic changes would be required in India's governance structure.
- One proposal by the **Law Commission in 2018** was to introduce the concept of "**constructive vote of no-confidence**" where a government can only be voted out by a legislature only if the House has confidence in another government that can take its place.
- The law panel document suggested that in case a government fell mid-term, the term of the **new government would be for the remaining period** and not for a fresh five-year term.
- Another proposal involves **either extending or curtailing the lifetimes of state assemblies** in order to make them coincide with the Lok Sabha elections.

#### Why in News?

- Prime Minister Narendra Modi recently said India needs the "One Nation, One Election" system and a single voter list for all polls in order to prevent the impact of the model code of conduct on development works every few months due to frequent spread-out polls.

## International Relations

### 1) Malabar Naval Exercise

#### What is Malabar Exercise?

- It is a multilateral naval exercise that includes simulated war games and combat manoeuvres. It started in **1992** as a **bilateral exercise between the Indian and US navies**. Japan joined in **2015**.

#### Why in News?

- Phase 1 of the Malabar Naval Exercise was conducted off the coast near Visakhapatnam, with participation of **Australian navy** for the first time since 2007.

#### What is the difference this year?

- For the first time in over a decade, the exercise saw the participation of **all four Quad countries (Japan, India, Australia and the United States)**.
- This is the **second time Australia participated**. In 2007, there were two Malabar Exercises. The first was held off Okinawa island of Japan in the Western Pacific and the second in September 2007, off Visakhapatnam, with the Indian, Japanese, US, Australian and Singapore navies.
- The following year, Australia stopped participating. Japan became a regular participant only in 2015, making it a trilateral annual exercise since then.

#### Quad grouping

- The grouping of four democracies – **India, Australia, US and Japan** – known as the **quadrilateral security dialogue or quad**, was first mooted by Japanese Prime Minister Shinzo Abe in 2007. Quad was revived in 2017.
- The QUAD partners share a **commitment towards a free, open, prosperous and inclusive Indo-Pacific region** based on shared values and principles and respect for international law.
- There is a focus on practical cooperation in the areas of

connectivity and infrastructure development, and counter-terrorism, cyber security, maritime security, humanitarian and disaster relief, with the objective of promoting peace, security, stability and prosperity in an increasingly inter-connected Indo-Pacific region.

- With growing concerns in all four quad countries about **Chinese foreign policy and regional influence**, the group has found renewed relevance.

#### Why is Australia's participation in Malabar Exercise important?

- As the standoff in eastern Ladakh continues, the participation of four large navies from the Indo-Pacific region will send a message to China.
- The Quad arrangement is expected to contribute to being a **key instrument of deterrence** against China.
- Quad has the potential to ensure that in the Indian Ocean Region and all other oceans around there is complete freedom of navigation, without fear of any other nation singularly trying to dominate the oceans.

### 2) RCEP

#### What's in the news?

- After eight years of negotiations, **15 Asia-Pacific nations** have finally signed the **Regional Comprehensive Economic Partnership (RCEP)**, hailed as one of the biggest free trade deals in history.
- It covers over 2.2 billion people and accounts for 30 per cent of the world's economy.
- The signatory countries include **10 Association of Southeast Asian Nations (ASEAN) members** — Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam — and their five trade partners — **Australia, China,**

Japan, South Korea and New Zealand.

#### About RCEP

- Described as the **“largest” regional trading agreement** to this day, RCEP was originally being **negotiated between 16 countries — ASEAN members** and six countries namely **Australia, China, Korea, Japan, New Zealand and India.**
- The purpose of RCEP was to make it easier for products and services of each of these countries to be available across this region.
- The agreement also includes rules on intellectual property, telecommunications, financial and professional services, and e-commerce.
- Negotiations to chart out this deal had been on since 2013, and India was expected to be a signatory until its decision last November.

#### India's exit

- However, in November last year, **India announced its decision to not join RCEP.**
- This came amid concerns that elimination of tariffs would open India's markets to imports, which in turn could harm local producers.
- India had suggested some remedial measures. For instance, if imports rise beyond a threshold they should be allowed to impose some kind of barriers. But, the other member countries of RCEP didn't agree to it.

#### Concerns of India

- **Imbalance in the negotiations between goods and services** was the main concern for India. Member countries pressured India to commit to **zero tariffs on more than 90 percent** of tradable goods with few exemptions.
- However, they were reluctant to India's proposal to allow **free movement of Indian skilled professionals** in the RCEP region.
- Indian industries were also worried that with RCEP allowing a wide range

of goods to import at zero tariffs, **Chinese goods will flood India.** It will cause serious damage to the “Make in India” programme.

- India has **trade deficits with 11 of the 15 RCEP countries**, and some experts feel that India has been unable to leverage its existing bilateral free trade agreements with several RCEP members to increase exports.

#### Opportunities for India

- Despite these concerns, RCEP will offer India an opportunity to engage with China.
- It will give India a chance to **stall some of its unfair practices** such as giving subsidies unethically and stalling Indian products, such as pharmaceuticals, on the pretext of quality control.
- RCEP will give Indian exporters a window to be a **part of global value chains.**
- Also, there are concerns that India's decision would **impact its bilateral trade ties with RCEP member nations**, as they may be more inclined to focus on bolstering economic ties within the bloc.
- The move could potentially leave India with **less scope to tap the large market that RCEP presents** —the size of the deal is mammoth, as the countries involved account for over 2 billion of the world's population.

#### What are India's options now?

- India, as an original negotiating participant of RCEP, has the **option of joining the agreement without having to wait 18 months** as stipulated for new members in the terms of the pact.
- RCEP signatory states said they plan to commence negotiations with India once it submits a request of its intention to join the pact “in writing”, and it may participate in meetings as an observer prior to its accession.

#### Way Forward

- However, the possible alternative that India may be exploring is **reviews of its existing bilateral FTAs** with some of these RCEP members as well as newer agreements with other markets with potential for Indian exports. Over 20 negotiations are underway.
- India currently has agreements with members like the **ASEAN bloc, South Korea and Japan** and is negotiating agreements with members like **Australia and New Zealand**.
- Two reviews of **India-Singapore Comprehensive Economic Cooperation Agreement (CECA)** have been completed; the **India-Bhutan Agreement on Trade Commerce and Transit** was renewed in 2016; and the **India-Nepal Treaty of Trade** was extended in 2016.
- Eight rounds of negotiations have been completed for the review of the **India-Korea Comprehensive Economic Partnership Agreement (CEPA)**, which began in 2016. India has taken up the review of the **India-Japan CEPA** and **India-ASEAN FTA** with its trading partners.
- There is also a growing view that it would serve India's interest to invest strongly in negotiating bilateral agreements with **the US and the EU**, both currently a work in progress.

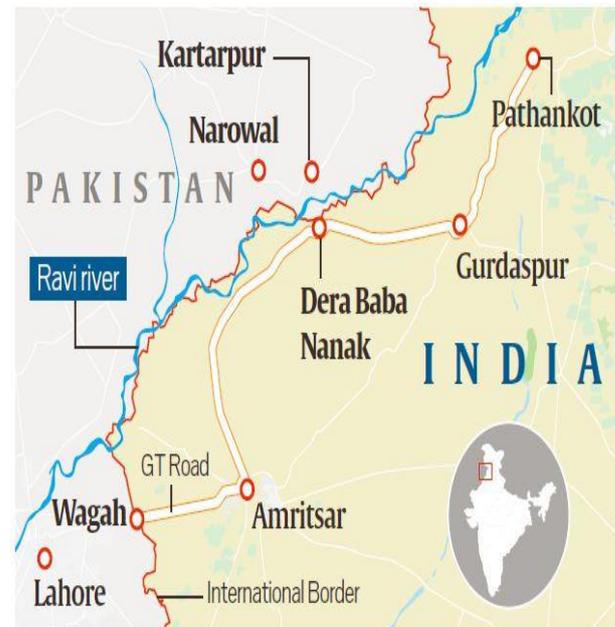
### 3) Kartarpur Corridor

#### About the corridor

- The corridor facilitates travel of Indian Sikh pilgrims to the Gurdwara Darbar Sahib in Kartarpur, Pakistan.
- The Kartarpur Corridor was first **proposed** in early 1999 by **Atal Bihari Vajpayee** and **Nawaz Sharif**, the Prime Ministers of India and Pakistan respectively.
- The corridor was inaugurated in November 2019 to **commemorate the**

#### 550th birth anniversary celebrations of Guru Nanak Dev.

- It is located on the right bank of the **Ravi River**.
- It is in Kartarpur Sahib that Guru Nanak Dev had spent the last 18 years of his life. The gurdwara is built where Guru Nanak is said to have died.



#### About Guru Nanak (1469–1539)

- **Founder** of Sikhism and is the **first of the ten Sikh Gurus**.
- He advocated a form of **nirguna bhakti** (devotion to and worship of the Divine as formless). He rejected the external practices of the religions he saw around him. He rejected sacrifices, ritual baths, image worship, austerities and the scriptures of both Hindus and Muslims.
- Nanak's teachings can be found in the Sikh scripture **Guru Granth Sahib**, as a collection of verses recorded in Gurmukhi.

#### Why in News?

- Sikhs in Pakistan held rituals at Gurdwara Darbar Sahib to mark the first anniversary of the inauguration of the historic Kartarpur Corridor.

## Defence

### 1) CORPAT

#### What's in the news?

- The 30th edition of **India-Thailand Coordinated Patrol (Indo-Thai CORPAT)** was held between the Indian Navy and the Royal Thai Navy.
- India and Thailand have been carrying out CORPAT along their International Maritime Boundary Line twice a year since 2005.
- CORPAT enhances strong bilateral ties and maritime cooperation between India and Thailand.
- It builds up the understanding and interoperability between navies of India & Thailand and facilitates the institution of measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.

### 2) SITMEX-20 & SIMBEX-20

#### What's in the news?

- The second edition of the **India, Thailand and Singapore trilateral Naval exercise SITMEX-20** was concluded in the Andaman Sea.
- The exercise highlights growing synergy, coordination and cooperation in the maritime domain between the three friendly navies and maritime neighbours.
- Besides improving interoperability between the friendly navies, SITMEX series of exercises also aim to strengthen mutual confidence and develop common understanding and procedures towards enhancing the overall maritime security in the region.

#### SIMBEX-20

- The 27th edition of **India-Singapore Bilateral Maritime Exercise SIMBEX-20** was also conducted in the same area in November.