

# OFFICERS' Pulse

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THE **PULSE** OF UPSC AT YOUR FINGER TIPS.

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## Schemes

### 1) Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya)

#### About the scheme

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana –“Saubhagya” is a scheme under the **Ministry of Power** to achieve **universal household electrification by providing free electricity connections to all households (both APL (Above Poverty Line) and poor families) in rural areas and poor families in urban areas.**
- Known as one of the largest household electrification drives in the world, the scheme was launched in 2017.

#### Objective

- To provide energy access to all by last mile connectivity and electricity connections to access to all un-electrified households in rural areas and poor households in urban areas. **Non-poor urban households are excluded from this scheme.**
- **Rural Electrification Corporation (REC)** has been designated as nodal agency for the Saubhagya scheme.
- The electricity connection to households include release of electricity connections by drawing a service cable from the nearest pole to the household premise, installation of an energy meter, wiring for a single light point with LED bulb and a mobile charging point.
- In case the electricity pole is not available nearby from the household for drawing service cable, the **erection of additional pole along with conductor and associated accessories** shall also be covered under the scheme.
- The scheme also aims to provide **Solar Photovoltaic (SPV) based standalone systems** for un-electrified households located in remote and inaccessible villages/habitations,

where grid extension is not feasible or cost-effective.

#### Eligibility

- The prospective beneficiary households for free electricity connections under the scheme would be identified using **SECC 2011 data.**
- However, **un-electrified households not covered under SECC data** would also be provided electricity connections under the scheme on payment of **Rs. 500** which shall be recovered by DISCOMs in 10 instalments through electricity bill.

#### Why in News?

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana -“Saubhagya” has completed four years since its inception.
- 2.82 crore households have been electrified since the launch of SAUBHAGYA.

### 2) UDAN scheme

#### About the scheme

- In 2017, the **Ministry of Civil Aviation** launched the Regional Connectivity Scheme (RCS) “UDAN” (Ude Desh Ka Aam Naagrik) which aims at **providing connectivity to un-served and under-served airports** of the country through revival of existing air-strips and airports to make **flying affordable** to the common man who want to travel to and fro the **Tier 2 and Tier 3 cities of the country.**
- UDAN has a unique market-based model. Airline routes are allocated to operators selected through a **competitive bidding mechanism.**
- Under the scheme, nearly half of the seats in UDAN flights are offered at subsidised fares, and the participating carriers are provided a certain amount of **viability gap funding (VGF)** - an amount shared between the Centre and the concerned states.

- The scheme also offers waiver of certain statutory charges and taxes on jet fuel to companies in order to offer affordable connectivity.
- The airport that will be renovated under this scheme will be chosen after referring to the respective State government. Together with the State government the Central government will **revive the dysfunctional and unserved airports of the country.**
- The **Airports Authority of India (AAI)** is designated as the Implementing Agency under this Scheme.
- The scheme is now in its **fourth phase** with focus on bringing connectivity to priority areas like North East India, Jammu and Kashmir, Ladakh, hilly states in other parts of the country, and islands. Under UDAN 4, the operation of helicopters and seaplanes have also been incorporated.

#### Why in News?

- The Government recently flagged off the first direct flight on Agra (Uttar Pradesh) – Lucknow (Uttar Pradesh) route under the Ude Desh Ka Aam Naagrik (UDAN) scheme.

### 3) Formalisation of Micro Food Processing Enterprises Scheme

#### About the Scheme

- In 2020, the **Ministry of Food Processing Industries** launched the PM Formalisation of Micro food processing Enterprises Scheme (PM FME Scheme) for providing financial, technical and business support for upgradation of existing micro food processing enterprises.
- With an outlay of Rs. 10,000 crore, it was launched as a **centrally sponsored scheme** aimed at **covering two lakh enterprises over five years** from 2020-21 to 2024-2025.
- During the first year of implementation, the **total**

**expenditure will be borne by the Central government**, but in successive years **centre and states will share the expenditure in a 60:40 ratio.**

#### About the scheme

- Under the scheme, **capacity building of entrepreneurs** will be undertaken through technical knowledge, skill training and hand holding support services. **Credit flow to micro food processing industries** will be strengthened along with **support for their integration with organised supply chains** by providing brand and marketing facilitation.
- Apart from individual entrepreneurs, support will also be extended to Farmer Producer Organizations (FPOs), SHGs, producers co-operatives and co-operative societies engaged in food processing activities.

#### Potential of the scheme

- The focus will be on **women and SC/ST owned units and those in Aspirational districts** and a **cluster-based approach** (e.g. Mango in UP, Tomato in Karnataka, Chilli in Andhra Pradesh, Orange in Maharashtra etc.) will be followed to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products.
- The scheme provides **credit linked grants** to enterprises with provision of seed capital to SHGs for meeting working expenses and purchase of small tools.
- The scheme is set to transform the unorganised micro food processing enterprises for the larger benefit of rural people and rural economy.

#### Role of Micro food processing industries

- Micro food processing industries represent the **unorganised food processing sector** comprising nearly 25 lakh units. **Nearly 74 percent of the total employment in the food**

**processing sector** comes from these units.

- Micro food processing enterprises are a major contributor to the rural economy as nearly **66 percent of these units are located in rural areas** and **about 85 percent of them are family based enterprises supporting the livelihood of households.**
- These units play a significant role in **checking rural-urban migration.**

#### Why in News?

- The Ministry of Food Processing Industries in association with the Ministry of Housing and Urban Affairs launched a **seed capital portal** under the PM FME Scheme for seed capital assistance to members of urban Self Help Groups working in the food processing sector.
- Urban SHG members which are engaged in Food Processing activities would be sensitized and motivated about the PMFME scheme to avail the benefits of seed capital for purchasing small tools and working capital.

## 4) PM POSHAN

### What's in the news?

- The Union Cabinet approved a proposal to rename the 26-year old national mid-day meal scheme as the **PM POSHAN (Poshan Shakti Nirman) scheme.** From the next financial year, the scheme will also **cover the 24 lakh children studying in balvatikas,** the pre-primary section of government schools.
- The government had opened 'Balvatikas' pre-schools attached to 'anganwadis' to offer one year of pre-school classes.
- The mid-day meal plan at present provides hot cooked food to students from Class 1 to 8 in all 11.20 lakh government and government-aided schools, to all nearly 11.80 crore children.

- *Refer Pulse July 2021 edition for more details on mid-day meal scheme.*

### Holistic nutrition goals

- The PM POSHAN scheme has been approved for the **next five-year period until 2025-26,** with a **collective outlay of ₹1.31 lakh crore,** including **₹31,733 crore as the share to be borne by the State governments.**
- It will **improve nutritional status, encourage education and learning and increase enrolments in government schools.**
- Primary (1-5) and upper primary (6-8) schoolchildren are currently entitled to 100 grams and 150 grams of food grains per working day each, to ensure a minimum of 700 calories. The rebranded scheme aims to **focus on "holistic nutrition" goals.** A **5% flexi component** would be built into the existing budget to **allow States to incorporate additional nutrition-rich elements** — such as fortified foods, fruits and milk — into the menu.
- **Use of locally grown traditional foods will be encouraged, along with school nutrition gardens.**
- **Social audits** have been made mandatory in all districts and college students and trainee teachers will be roped in to do field inspections to ensure the quality of meals.
- In other procedural changes meant to promote transparency and reduce leakages, States will be asked to do **direct benefit cash transfers** of cooking costs to individual school accounts, and honorarium amounts to the bank accounts of cooks and helpers.

### A Key Recommendation

- The extension of mid-day meals to pre-primary students, who are to be incorporated into the formal education system, was a key recommendation of

the **National Education Policy 2020** and the population of balvatikas is expected to rise from the existing 24 lakh as the policy is implemented.

- However, there has been no progress on the NEP's other recommendation to start offering **breakfasts to school students** as well.

## 5) Pradhan Mantri Awaas Yojana–Gramin

### About PMAY-G

- The Pradhan Mantri Awaas Yojana–Gramin (PMAY-G) was launched in 2016 to address the housing gaps existing in the rural areas. It aims to provide a **pucca house with basic amenities** to all rural families who are homeless or living in kutcha or dilapidated houses by the **end of March 2022**.
- It was initiated with the objective of achieving "**Housing for All**" by 2022.

### Features

- The houses built under the PMAYG scheme are **low-cost and disaster-resilient**.
- The minimum size of the houses built under the PMAYG scheme is **25 sq. mt.**
- The Central and State governments share the cost of assistance at a ratio of **90:10** in the hilly areas and **60:40** in the plain areas.
- Identification of beneficiaries as per the housing deprivation parameters and exclusion criteria prescribed **under Socio Economic Caste Census (SECC) 2011** after due verification by **Gram Sabha**.

### Financial Assistance

- Under PMAY-G, each beneficiary is given **100% grant of Rs.1.20 lakh** (in plain areas) and **Rs.1.30 lakh** (in Hilly States/North Eastern States/Difficult areas/UT of J&K and Ladakh/Left Wing Extremism (LWE) districts).
- The beneficiaries of PMAY-G, in addition to the unit assistance, are also

provided support of unskilled labour wages under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and assistance of Rs. 12,000 for construction of toilets through Swachh Bharat Mission–Gramin (SBM-G), MGNREGS or any other dedicated source of funding.

- The scheme has provisions for convergence with other schemes of Government of India and State/UTs for providing LPG connection under Pradhan Mantri Ujjwala Scheme, electricity connection, access to safe drinking water under Jal Jeevan Mission, etc.

### Why in News?

- The Central Government reviewed the implementation of the Pradhan Mantri Awaas Yojana–Gramin recently.

## 6) PMGDISHA

### Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

- In order to **impart digital literacy in the rural areas**, in 2017, PMGDISHA was launched by the **Ministry of Electronics and Information Technology** with the aim to **empower at least one person per rural household with crucial digital literacy skills**.
- The Scheme envisages to make six crore persons in rural areas, across States/UTs, digitally literate, reaching to around 40% of rural households.
- The scheme aims at bridging the **rural-urban digital divide**, with special emphasis on marginalised sections of society.
- The Scheme would empower the citizens in rural areas by training them to operate computer or digital access devices (like tablets, smart phones etc.), send and receive e-mails, browse Internet, access Government services, search for information, undertake digital payment etc. and hence enable them to use Information Technology

and related applications especially Digital Payments to actively participate in the process of nation building.

- The scheme is implemented by **CSC e-Governance Services India Limited**, a Special Purpose Vehicle set up by the Ministry of Electronics & IT, with active collaboration of all the State Governments and UT Administrations.
- As of August 2021, approximately 5.01 crore beneficiaries have been enrolled and 4.21 crore have been trained under the PMGDISHA Scheme.

#### Why in News?

- The government has launched the PMGDISHA drive, a three day certification campaign for rural citizens especially women and disadvantaged communities under the PMGDISHA scheme.

## 7) POSHAN Abhiyaan

### About the scheme

- Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN Abhiyaan), or the **National Nutrition Mission** is a flagship programme of the **Ministry of Women and Child Development** that aims to improve nutrition amongst children, pregnant women, and lactating mothers.
- Launched in 2018, it is a multi-ministerial convergence mission with the vision to ensure attainment of **malnutrition free India by 2022**.
- The mission targets to reduce **stunting, under-nutrition, anemia** (among young children, women and adolescent girls) and reduce **low birth weight** by 2%, 2%, 3% and 2% per annum respectively.
- The mission also strives to achieve a reduction in **Stunting** from 38.4% (NFHS-4) to 25% by 2022 (**Mission 25 by 2022**).

### Significance

- Amongst India's most serious yet marginally addressed development challenges is malnutrition, which contributes significantly to the country's disease burden.
- Even as **National Family Health Survey 2015-16 (NFHS-4)** data shows that the country's malnutrition rates have gone down, half of all children from families in the lowest income quintile are still stunted (51 percent) or underweight (49 percent).
- Today, India is home to the largest number of stunted children (46.6 million) and wasted children (25.5 million) in the world. **More than a third of children under five suffer from stunting and wasting and 40% of children between one and four are anaemic.**
- According to the NFHS-4, **over 50% of pregnant and non-pregnant women were found to be anaemic.**

### Poshan Maah

- To ensure community mobilisation and bolster people's participation, every year the **month of September** is celebrated as **Rashtriya Poshan Maah** under POSHAN Abhiyaan across the country.
- The activities in the Poshan Maah are focussed on **Social Behavioural Change and Counselling (SBCC)**. The broad themes are: antenatal care, optimal breastfeeding (early and exclusive), complementary feeding, anaemia, growth monitoring, girls' education, diet, right age of marriage, hygiene, and sanitation, eating healthy and food fortification.

### Why in News?

- A series of "Poshan Jagrukta Abhiyaan" (Nutrition Awareness Campaign) programmes under "Poshan Maah" was organised at various places in the country to carry out special dedicated activities ushering in behavioural change in the society.

## Initiatives

### 1) Nirbhaya Fund

#### About the Framework

- Nirbhaya Fund is a dedicated fund set up by the Government of India in **2013** which can be utilized for projects specifically designed to **improve the safety and security of women**.
- It is a **non-lapsable corpus fund** administered by the **Department of Economic Affairs of the Ministry of Finance**.
- As per this framework, the **Ministry of Finance through the Department of Economic Affairs** is the nodal Ministry for any accretion into and withdrawal from the corpus, and the **Ministry of Women & Child Development (WCD)** is the nodal authority for appraisal of the schemes/proposals received under Nirbhaya Fund.
- **Funding to Non-Governmental Organisations is not envisaged under the framework.**
- The proposed projects under the Nirbhaya Fund should have the following features:
  - Direct impact on safety and security concerns of women
  - Optimum use of existing infrastructure
  - Innovative use of technology
  - No duplication of existing government schemes/programmes
  - Provision for real time intervention as far as possible.

#### Why in News?

- The Ministry of Women and Child Development (WCD) conducted a review meeting for projects sanctioned under Nirbhaya Fund.

#### Initiatives under Nirbhaya fund

- The Nirbhaya fund is primarily meant to implement three initiatives through coordination between the WCD Ministry and the central government as well as state and union territory

administrations: **One-Stop Centres (OSC), Universalisation of Women Helpline (WHL), and Mahila Police Volunteers (MPV).**

- The OSCs are meant to **help women who are victims of violence** by providing a range of services such as police, medical aid, legal aid and counselling, and psychological support under one roof.
- The WHL scheme oversees a **toll-free 24X7 helpline** — available at **181** — for women seeking immediate support and information in cases of violence.
- The MPV scheme, implemented by the WCD Ministry in collaboration with the Ministry of Home Affairs, seeks to **identify volunteers who can act as a link between police and society** at large and help report incidents of violence against women.

### 2) INSPIRE Programme

#### About the Programme

- Innovation in Science Pursuit for Inspired Research (INSPIRE) is an innovative programme sponsored and managed by the **Department of Science & Technology (DST)** for **attraction of talent to Science**.
- The basic objective of INSPIRE is to
  - ✓ Communicate to the youth of the country the excitements of creative pursuit of science,
  - ✓ Attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the science & technology system and R&D base.
  - ✓ A striking feature of the programme is that it **does not believe in conducting competitive exams** for identification of talent at any level.

- ✓ It believes in and relies on the efficacy of the **existing educational structure for identification of talent.**
- INSPIRE has three components:
  - ✓ **Scheme for Early Attraction of Talent (SEATS)**
  - ✓ **Scholarship for Higher Education (SHE)**
  - ✓ **Assured Opportunity for Research Careers (AORC)**

#### INSPIRE Award MANAK

- The **INSPIRE Awards - MANAK (Million Minds Augmenting National Aspirations and Knowledge)**, being executed by DST with **National Innovation Foundation-India**, aims to motivate **students in the age group of 10-15 years** and studying in **classes 6 to 10** to become future innovators and critical thinkers.
- The objective of the scheme is to **target one million original ideas/innovations** rooted in science and societal applications to foster a culture of creativity and innovative thinking among school children.
  - *National Innovation Foundation - India is an autonomous body of the DST set up in 2000 to strengthen the grassroots technological innovations and outstanding traditional knowledge.*

#### Why in the news?

- The 8th National Level Exhibition and Project Competition for the INSPIRE Awards - MANAK was conducted recently.

### 3) 'eSanjeevani'

#### About 'eSanjeevani'

- Launched in 2009 by the **Ministry of Health & Family Welfare** 'eSanjeevani' is a **web-based comprehensive telemedicine solution**. It aims to provide healthcare services to patients in their homes.
- Besides enhancing the quality of medical services, addressing issues

about uneven distribution and shortage of infrastructural as well as human resources, eSanjeevani also aims to make healthcare services equitable by **bridging the digital divide** that exists between the urban vs. rural, rich vs. poor etc.

- eSanjeevani can also be used to provide **medical education** to interns, people across Various Common Service Centers (CSCs), etc.
- The portal was designed & developed by the **Centre for Development of Advanced Computing (C-DAC)**, a premier R&D organization of the Ministry of Electronics and Information Technology (MeitY).

#### Services provided

- eSanjeevani platform has enabled two types of telemedicine services viz.
  - Doctor-to-Doctor (eSanjeevani) and
  - Patient-to-Doctor (eSanjeevani OPD) Tele-consultations.

#### eSanjeevani

- It is being implemented under the **Ayushman Bharat Health and Wellness Centre (AB-HWC)**. It aims to implement Doctor-to-Doctor teleconsultation in all the 1.5 lakh Health and Wellness Centres (HWCs) in conjunction with identified Medical College hospitals in a 'Hub and Spoke' model.
- States have identified and set up dedicated 'Hubs' in Medical Colleges and District hospitals to provide teleconsultation services to 'Spokes', i.e Sub- Health Centres (SHCs), Primary Health Centres (PHCs) and HWCs.

#### eSanjeevani OPD

- Owing to the ongoing COVID-19 pandemic, the Health Ministry launched the second tele-consultation service enabling patient-to-doctor telemedicine through 'eSanjeevaniOPD'.

- Launched in April 2021, this service is available as an Android/iOS mobile application as well. This has made it **convenient for the people to avail of the health services without having to travel.**
- This e-health service is offered free of cost and has proved a boon in containing the spread of COVID while simultaneously enabling provisions for non-COVID essential healthcare.

#### Why in News?

- National telemedicine service, eSanjeevani has completed one crore 20 lakh consultations.
- The government's telemedicine service is rapidly shaping into the country's most popular and largest telemedicine service. Currently, it is serving around 90 thousand patients across the country everyday.

#### 4) National Single Window System

##### What's in the news?

- The Ministry of Commerce & Industry has launched the National Single Window System (NSWS) for investors and businesses which will become a **one-stop-shop for investors for approvals and clearances.**
- This would bring **Transparency, Accountability & Responsiveness** in the ecosystem and all information will be available on a single dashboard. An applicant Dashboard would be available to apply, track & respond to queries.
- Services include Know Your Approval (KYA), Common Registration & State registration Form, Document repository & E-Communication.
- The portal as of today hosts approvals across 18 Central Departments & 9 States, another 14 Central Departments & 5 states will be added by Dec'21.

#### 5) FASTER system

##### What's in the news?

- In a bid to ensure faster communication and compliance with its orders across the nation, the Supreme Court has approved the **"Fast and Secured Transmission of Electronic Records" (FASTER) system.**
- The innovative scheme is conceived for **instantaneous delivery of orders** passed by the Supreme Court through a secure communication channel to concerned prisons, District Courts, High Courts, as the case may be.
- This will save time and effort and will ensure that there are no delays in implementation of the orders passed by the Supreme Court.
- It is also meant to ensure that undertrials are not made to wait for days on end behind bars to be released because the certified hard copies of their bail orders took time to reach the prison.

#### 6) 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, 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?

- Prime Minister Narendra Modi has launched the nationwide roll-out of Pradhan Mantri Digital Health Mission.
- The pilot project of the National Digital Health Mission had been announced by the Prime Minister on August 15, 2020. Currently, the Digital Health Mission is being implemented in a pilot phase in six Union Territories.

### 7) DigiSaksham

#### What's in the news?

- The **Ministry of Labour and Employment** has launched DigiSaksham - a **digital skills programme to enhance the employability of youth by imparting digital skills** that are required in an increasingly technology driven era.
- Launched as a joint initiative with **Microsoft India**, it is an extension of the Government's ongoing programs to support the youth from rural and semi-urban areas.

#### About the Initiative

- Through DigiSaksham initiative, **free of cost training in digital skills** including basic skills as well as advanced computing, will be provided to **more than 3 lakh youths in the first year.**
- The Jobseekers can access the training through **National Career Service (NCS) Portal ([www.ncs.gov.in](http://www.ncs.gov.in)).**
- The initiative gives **priority to the job-seekers of semi urban areas belonging to disadvantaged communities**, including those who have lost their jobs due to Covid-19 pandemic.

#### Related Information

##### About NCS

- The **Ministry of Labour and Employment** is implementing the

**National Career Service (NCS) Project** to provide a variety of employment related services like job matching, career counselling, vocational guidance, information on skill development courses, apprenticeship, internships etc.

- The services under NCS are **available online** which was dedicated to the Nation by Prime Minister Narendra Modi in 2015. **All the services available in the portal are free of cost for all stakeholders** including jobseekers, employers, training providers and placement organizations.

## 8) Labour Codes

### What's in the news?

- The Ministry of Labour reviewed the implementation of four labour codes.

### Background

- Last year, the Parliament passed three labour law codes that complete the government's consolidation of 29 labour laws into four codes. The three Acts are the Industrial Relations Code, 2020, the Occupational Safety, Health and Working Conditions Code, 2020 and the Social Security Code, 2020.
- The first of the four codes- Code on Wages Act was passed in 2019.
- It should be noted that **labour falls under the concurrent list** of the Constitution. Therefore, both Parliament and state legislatures can make laws regulating labour.

### Code on Wages

- The Code replaces the following four laws:
  - the Payment of Wages Act, 1936
  - the Minimum Wages Act, 1948
  - the Payment of Bonus Act, 1965
  - the Equal Remuneration Act, 1976
- **Coverage:** The Code will apply to all employees to enforce minimum wage among **both formal and informal sector workers.**

- **Floor wage:** According to the Code, the **central government will fix a floor wage**, taking into account the living standards of workers. Further, it may set different floor wages for different geographical areas.
- The minimum wages decided by the central or state governments **must be higher than the floor wage.** In case the existing minimum wages fixed by the central or state governments are higher than the floor wage, they cannot reduce the minimum wages.
- **Fixing the minimum wage:** The Code prohibits employers from paying wages less than the minimum wages. Minimum wages will be notified by the central or state governments. The minimum wages will be revised and reviewed by the central or state governments at an interval of **not more than five years.**
- **Overtime:** The central or state government may fix the number of hours that constitute a normal working day. In case employees work in excess of a normal working day, they will be entitled to overtime wage, which must be **at least twice the normal rate of wages.**
- **Deductions:** Under the Code, an employee's wages may be deducted on certain grounds including: (i) fines, (ii) absence from duty, (iii) accommodation given by the employer, or (iv) recovery of advances given to the employee, among others. **These deductions should not exceed 50% of the employee's total wage.**
- **Gender discrimination:** The Code prohibits gender discrimination in matters related to wages and recruitment of employees for the same work or work of similar nature. Work of similar nature is defined as work for which the skill, effort, experience, and responsibility required are the same.
- **Advisory boards:** The central and state governments will constitute

advisory boards to advise the respective governments on various issues including: (i) fixation of minimum wages, and (ii) increasing employment opportunities for women.

### **The Code on Social Security, 2020**

- It replaces nine laws related to social security, including the Employees' Provident Fund Act, 1952, the Maternity Benefit Act, 1961, and the Unorganised Workers' Social Security Act, 2008. Social security refers to **measures to ensure access to health care and provision of income security to workers.**
- **Changes in definitions:** The Code changes the definitions of certain terms. These include: (i) expanding the definition of 'employees' to include workers employed through contractors, (ii) expanding the definition of "inter-state migrant workers" to include self-employed workers from another state, (iii) expanding the definition of "platform worker" to additional categories of services or activities as may be notified by the government, (iv) expanding the definition of **audio-visual productions** to include films, web-based serials, talk shows, reality shows and sports shows, and (v) **exempting construction works** from the ambit of "building or other construction work" if the total cost of construction work exceeds Rs 50 lakhs (and if they employ more than a certain notified number of workers).
- The central government will set up a **social security fund for unorganised workers, gig workers and platform workers.** Further, state governments will also set up and administer separate social security funds for unorganised workers.
- **Gig workers refer to workers outside of the traditional employer-employee relationship (e.g., freelancers). Platform workers are workers who**

*access other organisations or individuals using online platforms and earn money by providing them with specific services. Unorganised workers include home-based and self-employed workers.*

- The Code makes provisions for **registration of all three categories of workers** - unorganised workers, gig workers and platform workers.
- **National Social Security for gig workers and platform workers:** The Code provides for the establishment of the **National Social Security Board** and various state-level boards for welfare of unorganised sector workers, gig workers and platform workers and can recommend and monitor schemes for them.
- **Term of eligibility for gratuity:** Gratuity is payable on the termination of employment, if the employee has been in the organisation for **at least five years.** The Code extends gratuity entitlement to **fixed term employees** as well. Such employees would be paid gratuity based on the term of their employment contracts on a pro-rata basis, even if the contract period is less than 5 years.

### **The Occupational Safety, Health and Working Conditions Code, 2020**

- The Code seeks to regulate health and safety conditions of workers in establishments with **20 workers** for premises where the manufacturing process is carried out using power, and **40 workers** for premises where it is carried out without using power.
- **Contract workers:** The Code will apply to establishments or contractors employing **50 or more workers** (on any day in the last one year).
- Establishments covered by the Code are required to register with registering officers, appointed by the central or state governments.
- Welfare facilities, working conditions and work hours for different types of

establishments and workers will be prescribed by the central or state governments through rules.

- It subsumes and replaces 13 labour laws relating to safety, health and working conditions. These laws include: Factories Act, 1948; Mines Act, 1952; Dock Workers Act, 1986; Contract Labour Act, 1970; and Inter-State Migrant Workers Act, 1979.
- The Code sets up **occupational safety boards at the national and state level** to advise the central and state governments on the standards, rules, and regulations to be framed under the Code.
- The Code **bars civil courts from hearing matters under the Code**. Therefore, the only judicial recourse for a person aggrieved under the Code is to file a writ petition before the relevant High Court.
- **Daily work hour limit:** The Code fixes the maximum daily work hours for workers at **eight hours per day**.
- **Benefits for inter-state migrant workers:** The Code provides for certain benefits for inter-state migrant workers. These include: (i) option to avail the benefits of the public distribution system either in the native state or the state of employment, (ii) availability of benefits available under the building and other construction cess fund in the state of employment, and (iii) insurance and provident fund benefits available to other workers in the same establishment.
- **Database for inter-state migrant workers:** The Code requires the central and state governments to maintain or record the details of inter-state migrant workers in a portal.
- **Social Security Fund:** The Code provides for the establishment of a Social Security Fund for the welfare of unorganised workers. The amount collected from certain penalties under the Code will be credited to the Fund.
- The Code **empowers the state government** to exempt any new factory from the provisions of the Code in order to create more economic activity and employment.

#### **The Industrial Relations Code, 2020**

- It seeks to replace three labour laws: (i) the Industrial Disputes Act, 1947, (ii) the Trade Unions Act, 1926, and (iii) the Industrial Employment (Standing Orders) Act, 1946.
- It **defines 'workers'** to include, besides all persons employed in a skilled or unskilled, manual, technical, operational and clerical capacity, supervisory staff drawing up to ₹18,000 a month as salary.
- It introduces **'fixed term employment'**, giving employers the flexibility to hire workers based on requirement through a written contract. Fixed term employees should be treated on a par with permanent workers in terms of hours of work, wages, allowances and other benefits, including statutory benefits such as gratuity.
- **Applicability of standing orders:** All industrial establishments with **300 workers or more** must prepare standing orders on the matters listed in a Schedule to the Code. These matters relate to: (i) classification of workers, (ii) manner of informing workers about work hours, holidays, paydays, and wage rates, (iii) termination of employment, and (iv) grievance redressal mechanisms for workers.
- **Closure, lay-off and retrenchment:** An establishment having at least 300 workers was required to seek prior permission of the government before closure, lay-off, or retrenchment.
- *Lay-off refers to an employer's inability to continue giving employment to a worker in the face of adverse business conditions. Retrenchment refers to the termination of service of a worker for*

*any reason other than disciplinary action.*

- **Negotiating Union and Council:** If there were more than one registered trade union of workers functioning in an establishment, the trade union having **more than 51% of the workers as members** would be recognised as the sole negotiating union.
- In case no trade union is eligible as sole negotiating union, a negotiating council will be formed consisting of representatives of unions that have at least 20% of the workers as members.
- **Prior notice:** The code has expanded to cover **all industrial establishments** for the required notice period and other conditions for a legal strike. It proposes that no person employed in an industrial establishment shall go on strike without a **60-day notice** and during the pendency of proceedings before a Tribunal or a National Industrial Tribunal and sixty days after the

conclusion of such proceedings. The Industrial Disputes Act, 1947, had placed such restrictions on announcing strikes only in respect of public utility services. However, the present Code extends it to all establishments.

- **Disputes relating to termination of individual workers:** Any dispute in relation to discharge, dismissal, retrenchment, or otherwise termination of the services of an individual worker to be an industrial dispute. The worker may apply to the **Industrial Tribunal** for adjudication of the dispute.
- It confers on the **'appropriate Government'**, that is the Centre or the State governments, the power to exempt, with or without conditions, any industrial establishment or class of industrial establishments from all or any of the provisions of the Code, if it is satisfied that adequate provisions exist to fulfil its objectives.

# Environment

## 1) Wildlife Protection Act, 1972

### About WPA

- The Wildlife Protection Act (WPA), 1972 was enacted for **protection of plants and animal species**. The Act divides species into **'schedules'** ranked from **I to VI**.
- Out of the six schedules, **Schedule I and Schedule II** species are afforded the highest levels of protection under the law as they are extremely rare, endemic, or endangered. Species under **Schedules III and IV** are also protected, but the penalties are lower.
- Under Section 62 of WPA, the **Central Government** may, on the requests from the respective States, declare any wild animal **other than those specified in Schedule I & Part II of Schedule II** (that lists most endangered and iconic species like tigers, leopards, and elephants) of the law to be **vermin** for any area for a given period of time for selective slaughter.
- As long as the notification is in force such wild animals shall be included in **Schedule V** of the law, depriving them of any protection under that law.
- A species is declared as vermin
  - ✓ if they have become dangerous to human life or property, or
  - ✓ if they have become so disabled or diseased as to be beyond recovery.
- **Schedule VI** of the Wildlife Protection Act, 1972 provides for the protection of wild animals, birds and plants and matters connected with them, with a view to ensure the ecological and environmental security of India.
- **No person is allowed to cultivate a specified plant** mentioned in schedule VI, except with a licence granted by the **competent authority**. It includes plants such as

- ✓ Beddome's cycad (Cycas beddomei).
- ✓ Blue Vanda (Vanda eoeerulea).
- ✓ Kuth (Saussurea costus).
- ✓ Ladies slipper orchids (Paphiopedilium spp.).
- ✓ Pitcher plant (Nepenthes khasiana).
- ✓ Red Vanda (Rananthera imschootiana).

### Why in News?

- In a policy document, the Centre for Development Studies (CDS), Thiruvananthapuram, suggested **shifting the wild boar from Schedule 3 of the Wildlife (Protection) Act to Schedule 5** allowing tribal communities to permit hunting the species for food for a limited period.
- The document noted that it would address the food security aspects of local communities and could even attract a market for wild meat and for value-added products based on it. It also suggested fair and adequate compensation to farmers who lose crops to wild animals.

## 2) Blue Flag Certification

### What is Blue Flag Certification?

- The Blue Flag certification is a globally recognised **eco-label** accorded to **environmental-friendly, clean beaches, marinas** and sustainable boating tourism operators. The programme was started in France in 1985 and in areas out of Europe in 2001.
- The programme **promotes sustainable development in freshwater and marine areas** through **four main criteria**: water quality, environmental management, environmental education and safety.
- There are **33 environment and tourism-related conditions** for Blue Flag Certification. Few of them include,

having proper waste disposal systems, availability of clean water for tourists, disabled friendly etc.

- The certification is awarded by the Denmark-based non-profit **Foundation for Environmental Education (FEE)**, which sets stringent environmental, educational, safety-related and access-related criteria that applicants must meet and maintain.
- It is awarded **annually** to beaches and marinas in FEE member countries.
- Around fifty countries currently participate in the program, and over 4,000 beaches and marinas have this certification.

#### Why in News?

- Two more beaches in India have been awarded 'Blue Flag' certification, an international eco-level tag, taking the total number of such beaches in the country to **10**.
- The two beaches to receive the certification this year are **Kovalam in Tamil Nadu** and **Eden in Puducherry**.
- Foundation for Environment Education in Denmark (FEE) which accords the globally recognized eco-label - Blue Flag certification, has also given **re-certification for eight nominated beaches** which were awarded the Blue Flag certificate last year.
- The re-certified beaches are **Shivrajpur-Gujarat, Ghoghla-Diu, Kasarkod and Padubidri-Karnataka, Kappad-Kerala, Rushikonda-Andhra Pradesh, Golden-Odisha and Radhanagar-Andaman and Nicobar**. These eight beaches got the Blue Flag certification in October last year.
- Indian beaches are being developed by the **Society for Integrated Coastal Management (SICOM)** according to the Blue Flag certification standards.

#### About SICOM

- SICOM has been established under the aegis of the **Ministry of Environment, Forests and Climate change** with a

vision for a **vibrant, healthy and resilient Coastal and Marine Environment**.

- SICOM has conceived an integrated coastal management scheme named **BEAMS (Beach Management Services)** to reduce existing pollutants on beaches and to aspire & achieve such high International Standards in India.

### 3) National Disaster Management Authority

#### About NDMA

- The National Disaster Management Authority (NDMA) is a **statutory body** constituted under the Disaster Management Act 2005, with the **Prime Minister of India** as its Chairman, a Vice Chairman with the status of Cabinet Minister, and eight members with the status of Ministers of State.
- The Disaster Management Act also has statutory provisions for the constitution of the **National Disaster Response Force** for the purpose of specialized response to natural and man-made disasters.
- The NDMA is the **apex statutory body for disaster management in India**. It is under the **control of the Ministry of Home Affairs (MHA)**.

#### National Disaster Management Plan

- The National Disaster Management Plan (NDMP) provides a framework and direction to the government agencies for all phases of the disaster management cycle. The plan is prepared by the National Disaster Management Authority.
- The NDMP has been aligned broadly with the goals and priorities set out in the **Sendai Framework for Disaster Risk Reduction**.

#### About SDRF

- State Disaster Response Fund (SDRF) is constituted under the **Disaster Management Act 2005**.

- It is a primary fund available with the **State Government for responses to notified disasters.**
- The **Central Government contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States** (North Eastern States, Sikkim, Uttarakhand, Himachal Pradesh and Jammu & Kashmir).
- The annual Central contribution is released in two equal installments as per the **recommendation of the Finance Commission.**
- SDRF shall be used only for meeting the expenditure for providing **immediate relief to the victims.**
- The accounts of the SDRF shall be audited annually by **Comptroller & Auditor General of India (CAG).**
- **Disasters covered under SDRF:** Cyclone, Drought, Earthquake, Floods, Tsunami, Hailstorm, Landslide, Avalanche, Cloud burst, Pest attack, Frost and Cold wave.

#### **Local Disaster**

- State Government may use up to **10% of the funds** available under SDRF for providing immediate relief to the victims of the natural disaster that day considered to be **“Disaster” within the local contacts** in the State and which is not included in the notified list of disaster of the Ministry of Home Affairs (MHA).

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

- The National Disaster Management Authority has recommended ex gratia Rs 50,000 to be given to kin of those who died due to Covid-19. The ex gratia will be provided from the State Disaster Response Fund and subject to the cause of death being certified as Covid-19.
- Compensation will be given to families of even those deceased who were involved in Covid relief operations or associated in preparedness activities.

#### **Related Information**

#### **Sendai Framework for Disaster Risk Reduction 2015-2030**

- The Sendai Framework is a **15-year, voluntary, non-binding agreement** which recognizes that the State has the primary role to reduce disaster risk, but that responsibility should be shared with other stakeholders including local governments, the private sector, the scientific community and NGOs.
- It lists **priority areas for action** such as:
  - understanding disaster risk,
  - strengthening disaster risk governance to manage disaster risk,
  - investing in disaster risk reduction for resilience and
  - enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.
- It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years (2015-2030).
- The Framework was adopted at the **Third UN World Conference on Disaster Risk Reduction** in Sendai, Japan, in 2015. **India** is a signatory to the agreement.

#### **4) Leaded Petrol Eradicated**

##### **About Leaded Petrol**

- Vehicles have been running on leaded fuel since 1922, when the compound **tetraethyl lead** was added to gasoline to boost engine performance. This **deadly neurotoxin** has already done a great deal of harm since then.
- By the 1970s, almost all petrol produced worldwide contained lead. The combustion of leaded petrol causes the lead to be released into the

air. The **health impacts have been catastrophic**. The **environment has suffered too, with air and soil contamination just two examples**.

- Most high-income nations had prohibited leaded petrol use by the 1980s, but almost all low and middle-income countries were still using it as late as 2002.
- That same year, the **United Nations Environment Programme (UNEP)** began the **Partnership for Clean Fuels and Vehicles (PCFV)** which brought together all stakeholders, and its activities included raising awareness and overcoming resistance from local oil dealers and producers of lead, as well as investing in refinery upgrades and providing technical assistance.
- **India** was among those countries that took early action to phase out leaded petrol which started in 1994 and was completed by **2000**.

#### Issues related with Leaded Petrol

- According to the World Health Organization (WHO), **lead is toxic**, affects multiple body systems and is particularly harmful to young children.
- It affects the **brain, liver, kidneys and bones**.
- Leaded petrol causes **heart disease, stroke and cancer**.
- More recent research has indicated that lead can damage the **infant brain** even at blood levels as low as 5 microunit per decilitre ( $\mu$ /dl).

#### Why in News?

- After a 20-year campaign, the use of leaded petrol has ended worldwide.
- According to UNEP, **Algeria** is the last country to use the fuel and exhausted its supplies recently, thereby **completely eradicating the use of Leaded Petrol**.
- UN Secretary-General António Guterres called the eradication of leaded petrol an "**international success story**". It will prevent more

than **1.2 million premature deaths** and save world economies over **\$2.4 trillion** annually.

- The end of leaded petrol is expected to support the realization of multiple **Sustainable Development Goals**, including good health and well-being (**SDG3**), clean water (**SDG6**), clean energy (**SDG7**), sustainable cities (**SDG11**), climate action (**SDG13**) and life on land (**SDG15**).
- Some of the lessons from the lead campaign are relevant for similar and ongoing campaigns like reducing **sulphur** in fuels to enable application of advanced emissions control systems and to achieve much cleaner emissions worldwide. But each issue needs its own tailor-made approach to address diverse environment programs and campaigns.

#### Additional Information

##### About UNEP

- The United Nations Environment Programme is the leading environmental authority in the United Nations system. It promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system.
- Headquartered in **Nairobi, Kenya**, it was founded as a result of the UN Conference on the Human Environment (also known as the **Stockholm Conference**) in 1972.

#### 5) Convention on Migratory Species

##### About CMS

- The Convention on Migratory Species (CMS), also known as the **Bonn Convention**, is an **environmental treaty of the United Nations** that provides a global platform for the **conservation and sustainable use of migratory animals and their habitats**.

- CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.
  - As the **only global convention specializing in the conservation of migratory species, their habitats and migration routes**, CMS complements and co-operates with a number of other international organizations, NGOs and partners in the media as well as in the corporate sector.
  - CMS has **two Appendices**.
    - **Appendix I** comprises migratory species that have been assessed as being in **danger of extinction** throughout all or a significant portion of their range.
    - Migratory species that need conservation and management or would significantly benefit from international co-operation are listed in **Appendix II** of the Convention.
  - **India has been a party to the CMS** since 1983.
- It showed that pollution from plastics **increases the vulnerability of already endangered species** such as Gangetic and Irrawaddy dolphins, Asian elephants, and Black-footed Albatrosses.
  - Plastic pollution can also **impact other migratory and resident species** that live in freshwater environments including fish, through **entanglement** as well as through the **ingestion** of microplastics that can in turn impact species of the food web.
  - The report found that **migratory species** are likely among the **most vulnerable** to plastic pollution.
  - The report pointed out that **discarded fishing gear and kite strings** are among the **major threats** especially for the aquatic species and also for mammals and birds which encounter these discarded materials on land.
  - According to the study, by 2030 up to 53 million metric tonnes of plastics could enter aquatic ecosystems annually, and if no improved measures are taken, this figure could reach 90 million tonnes annually meaning global environmental contamination is likely to continue to increase dramatically.

### Why in News?

- The Convention on Migratory Species released a new report which focuses on the impacts of plastic pollution on animals, birds, and aquatic beings in the Asia-Pacific region.

### Key Findings of the Report

- The study found that species protected under the CMS are **impacted by plastic pollution in river ecosystems and on land**, including freshwater species, land animals, and birds.
- The study focussed on the **Ganges and Mekong river basins**, which together contribute an estimated 200,000 tonnes of plastic pollution to the Indian Ocean and the Pacific Ocean every year.

## 6) Pulicat Lake

### About Pulicat Lake

- It is the **second-largest brackish water lake** in the country (next to **Chilika in Odisha**) located at the border of the states of **Andhra Pradesh and Tamil Nadu** on the **Barricade Island of Sriharikota**.
- The barrier island of Sriharikota separates the lagoon from the Bay of Bengal and is home to the **Satish Dhawan Space Centre**.
- The lagoon encompasses the **Pulicat Lake Bird Sanctuary and is a Ramsar site**.
- Also called **Pazhaverkadu**, the lake is popular as a **flamingo-watching site**.



### Why in News?

- Migratory birds such as greater flamingos and pelicans have started arriving at Pulicat Lake.
- The site is also home for birds such as black-headed ibis, Asian openbill, black-crowned night heron, and little cormorant.

# Agriculture

## 1) Millets

### About Millets

- Millets are a group of small seeded grasses used as cereals. The Indian sub-continent has had a rich heritage of growing them and until very recently millets formed a very large part of our food basket.
- Sadly, the production of millets has not been given much attention over the years and our agricultural policies have systematically encouraged production of wheat & rice at the cost of millets and coarse cereals.
- There is a **reduction in the total area under millet cultivation**. While in 1965-66 it stood at almost 37 million hectares, it was down to 14.72 million hectares in 2016-17.

### Socio-Economic Context of Millets

- Millets were considered the **food of the poor** due to their **ability to grow even in the most marginalised of lands**, compared to other crops like paddy or wheat which needed more fertile lands and more focus on irrigation and crop management.
- Millets were also **ideal for rain-fed conditions and saline soils**.

### Renewed focus

- A **declining diversity in diet** which was traditionally a part of our food culture had many significant impacts in terms of the **nutrition status amongst women and children**.
- The recent trends show a **renewed interest in millets**. The government policies are also starting to reflect this renewal. Millets have been included in the **public distribution system in Odisha** and the government is also promoting millets under the **National Food Security Act**.
- At the behest of the Indian government, the **UN Food and Agricultural Organisation** has approved its proposal to declare the

year 2023 as the **International Year of Millets**.

### Millets -- Good for Health, Farmers, & Environment

- According to a recent study, in the coming years there will be a **reduction in production rates** of various cereal crops **due to climate change**. The only crops that could withstand these climate vagaries and not see a negative impact on yield are millets.
- Millets have a **double value in tackling climate change** because they **contribute to both adaptation and mitigation**.
- Millets can survive in much higher temperatures and with much less water than most crops. Their overall resilience makes them **climate smart** and a good adaptation strategy for farmers.
- Millets also are farmed with **minimal fertilizers and pesticides**, so they have a **lower carbon footprint**. Millets compared to rice **reduces Greenhouse gases (GHGs) by 2% to 13%**.
- Millets are also **highly nutritious** and have the potential to be a solution to the nutrition crisis facing the country.
- A study by **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)** found that children grew up to 50% more in weight and height parameters on a millet based diet.
- Millets are also being hailed as the **solution for many lifestyle diseases** like diabetes, high blood pressure, digestive disorders, gluten allergies and much more.

### Why in News?

- Union Minister for Agriculture and Farmers' Welfare urged the present generation to understand the importance of nutritious food grains

like millets and make it a part of their daily diet.

- Recalling that since ancient times millets have been used in abundance in our country, the Union Minister said that it was upon India's initiative that the United Nations declared the year 2023 as the International Year of Millets.

## 2) Pusa Decomposer

### Stubble burning

- Stubble burning is the act of clearing agricultural fields by **burning the residue that is left on the land after harvesting**, to ready it for the next round of seeding.
- The period from 15 October to 15 November is when stubble burning instances spike because paddy crops are harvested during this time and the residue left behind needs to be quickly cleared to sow wheat.

### What are the Implications?

- Open burning of Stubble is **Incomplete Combustion** in Nature & large Amount of the **Methane, Carbon monoxide, Volatile Organic Compound** are Emitted.
- It also produces large amounts of **PM 2.5 and PM 10**, the most common **primary pollutants** in the country.
- It causes **air pollution** across the northern states of India particularly in Delhi.
- Several solutions have been proposed over the years to tackle the issue. The most recent one is the 'Pusa Decomposer' capsule developed by the **Indian Agriculture Research Institute (IARI)** in New Delhi.

### What is Pusa Decomposer?

- It is essentially a **fungi-based liquid solution** that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as **compost**. This would then rule out the need to burn the stubble.

- When farmers burn the residue, not only does it lead to air pollution, it also **burns the top layer off the soil** and deprives the fields of much-needed nutrients. When we use this bio-decomposer, we also retain a portion of the stalk and the roots, which get decomposed in the fields themselves and **add to the nutrition in the soil**.

### How is the decomposer to be used by farmers?

- There are **seven strains of fungi** that IARI has identified after research which help in rapid breakdown of hard stubble.
- These seven strains of fungi are packed into four capsules, which cost about Rs 20 per pack of four. But there is a process for developing the liquid solution from these capsules which can take about four to five days.
- It starts with boiling 25 litres of **water** mixed with 150 grams of **jaggery**, which scientists say has properties that help in multiplication of fungi.
- After this mix has cooled, 50 grams of **besan** (or gram flour) is added to it along with four 'Pusa Decomposer' capsules.
- This solution is then covered with a thin piece of cloth and left in a dark room for four days. On the fourth day, a thick growth of fungi will be seen on top of the solution. This has to be mixed well, and thereafter the solution is ready for use.

### How long does it take for the decomposer to work?

- The window of time required for the solution to work, which is currently the main concern of farmers, is **around 20 to 25 days**, as per the IARI.
- Farmers argue that this window is too long for them, as they ideally wait about a week or 10 days after harvesting the non-basmati variety of rice — which leaves hard stubble — to sow the wheat crop.

- IARI scientists, however, say that farmers do not necessarily have to plant the next crop in a rush — and that 20-25 days is enough waiting time.
- IARI scientists have also said that farmers do not necessarily have to wait for the entire 20-25 day window before getting to work on the field. They can start ploughing and preparing the land 10-15 days after spraying the decomposer.

#### Why in News?

- The Delhi government has announced that the Pusa bio-decomposer will be used to decompose stubble in around 4,200 acres of paddy fields in the capital. The cost will be borne by the Delhi government.
- A third-party audit of the decomposer indicated that **carbon and nitrogen content in the soil increased** as a result of spraying the decomposer.

# Science and Technology

## 1) Genome sequencing

### What's in the news?

- An international collaboration of around 30 institutions has reported the **most complete sequencing of the human genome until now**.
- They have, in the process, discovered over a **hundred new genes that code for proteins**. The total size of the genome they have sequenced is **close to 3.05 billion base pairs**. This adds 200 million base pairs to the last draft of the human genome that was published in 2013.
- The results come with the caveat that about **0.3% may still have errors**, and that **among the sex chromosomes, only the X chromosome has been sequenced**.

### What is significant about this announcement?

- The **Human Genome Project** (a widespread international collaboration) that began in 1990 gave the first results of the complete human genome sequence in **2003**. For the first time, we were able to **read the blueprint of human life**.
- However, though it was announced as the complete human genome, about **15% of it was incomplete**. Due to limitations of technology, scientists were not able to piece together some repetitive parts of the human genome.
- Solving some of the problems, an updated "complete" version was released in **2013**, which **still missed out on 8% of the genome**. Now, the researchers have nearly completed the job, adding 200 million base pairs and 115 new protein-coding genes to the list.

### What is special about protein-coding genes?

- The human genome is the **entire set of deoxyribonucleic acid (DNA) belonging to a human**. This resides in

the **nucleus of every cell** of the human being.

- The DNA consists of a **double-stranded molecule**, each of which is built up by **four bases** – adenine (A), cytosine (C), guanine (G) and thymine (T). Every base on one strand pairs with a complementary base on the other strand (A pairs only with T, and C only with G). In all, the genome is made up of **3.05 billion such base pairs, approximately**.
- Of these, there are long stretches that do not seem to have a particular function. On the other hand, **protein-coding sequences or protein-coding genes are DNA sequences that get transcribed on ribonucleic acid (RNA) as an intermediate step**. These in turn make the proteins **responsible for various functions** such as keeping the body healthy or determining the colour of the eye — proteins carry out the instructions encoded in the genes.

### What will this genome draft be useful for?

- One of the most important uses of this release will be that it forms a **standard for comparison in future sequencing attempts**. Just as the standard of time is given by the beats of a caesium clock placed in the International Bureau of Standards, this sequence of the human genome will be a gold standard of reference for future attempts.
- The new information has the potential to **advance our understanding of human biology** including how chromosomes function and maintain their structure. It is also going to **improve our understanding of genetic conditions** such as Down syndrome that have an underlying chromosomal abnormality.

## 2) Diabetes

### What is diabetes?

- Diabetes is a chronic (long-lasting) disease that occurs when the **pancreas is no longer able to make insulin**, or when the **body cannot make good use of the insulin it produces**.
- Insulin is a hormone made by the pancreas that acts like a key to **let glucose from the food we eat pass from the bloodstream into the cells in the body to produce energy**. All carbohydrate foods are broken down into glucose in the blood. Insulin helps glucose get into the cells.
- Not being able to produce insulin or use it effectively leads to raised glucose levels in the blood (known as **hyperglycaemia**). Over the long-term high glucose levels are associated with damage to the body and failure of various organs and tissues.

### Types of Diabetes

- There are three main types of diabetes – **type 1, type 2 and gestational**.
- **Type 1 diabetes** can develop at any age, but occurs **most frequently in children and adolescents**. When you have type 1 diabetes, your **body produces very little or no insulin**, which means that you need daily insulin injections to maintain blood glucose levels under control.
- **Type 2 diabetes is more common in adults and accounts for around 90% of all diabetes cases**. When you have type 2 diabetes, **your body does not make good use of the insulin that it produces**. The cornerstone of type 2 diabetes treatment is a healthy lifestyle, including increased physical activity and healthy diet. However, over time most people with type 2 diabetes will require **oral drugs and/or insulin** to keep their blood glucose levels under control.
- **Gestational diabetes (GDM)** is a type of diabetes that consists of high blood glucose **during pregnancy** and is associated with complications to both

mother and child. GDM **usually disappears after pregnancy** but women affected and their children are at increased risk of developing type 2 diabetes later in life.

- **Other types of diabetes**

- Less common types of diabetes include **monogenic diabetes and cystic fibrosis-related diabetes**.

### Why in News?

- A pan India study has found that good control of not only blood sugar, but also blood pressure and cholesterol is essential for survival and a good quality of life among Type 1 diabetics.
- Individuals with Type 1 Diabetes (T1D) have increased morbidity and excess premature mortality compared to those without diabetes and their life expectancy is reduced by an estimated 15-20 years, even with the life-saving insulin to their assistance.
- India is home to more than 95,000 children with T1D, reported to be the **highest in the world**.

## 3) What Chandrayaan-2 has sent and its significance

### About Chandrayaan 2

- Chandrayaan 2 is an **Indian lunar mission that attempted to conduct a soft landing on the Moon's south polar region**.
- **Indian Space Research Organization (ISRO)** launched Chandrayaan 2, a mission comprising an **orbiter and a soft lander carrying a rover**, in July 2019.
- The primary objective of Chandrayaan 2 is to **demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface**.
- Scientific goals include studies of lunar topography, mineralogy, elemental abundance, the lunar exosphere, and signatures of hydroxyl and water ice.
- It was launched on **GSLV Mk-III** and reached the lunar orbit on August 20.

The **lander and rover** were set to land on the far side of the Moon after being separated from the orbiter. However, the missions did not go as planned when the combination **crash-landed on the surface of the Moon**.

- While the lander and rover were lost in the accident, the **orbiter continues operating in the lunar orbit** to date providing key observations of the surface.

### Why in News?

- Recently, ISRO released the information gathered by Chandrayaan-2 till now.
- The Orbiter is carrying eight instruments. Through different methods, these instruments are meant to carry out a few broad tasks — study in more detail the **elemental composition of the lunar surface and environment, assess the presence of different minerals, and do a more detailed mapping of the lunar terrain**.

**Some of the most significant results so far:**

### Water Molecule

- The **presence of water on the Moon had already been confirmed by Chandrayaan-1**, India's first mission to the Moon that flew in 2008. Before that, **NASA missions Clementine and Lunar Prospector** too had picked up signals of water presence.
- But the instrument used on Chandrayaan-1 was **not sensitive enough to detect whether the signals came from the hydroxyl radical (OH) or the water molecule (H<sub>2</sub>O, which too has OH)**.
- Using far more sensitive instruments, the **Imaging Infra-Red Spectrometer (IIRS)** on board Chandrayaan-2 has been able to distinguish between hydroxyl and water molecules, and **found unique signatures of both**. This is the **most precise information**

**about the presence of H<sub>2</sub>O molecules on the Moon till date**.

- Previously, water was known to be present mainly in the polar regions of the Moon. Chandrayaan-2 has now found **signatures of water at all latitudes**, although its abundance varies from place to place.

### Minor Elements

- **The Chandrayaan-2 Large Area Soft X-Ray Spectrometer (CLASS)** measures the Moon's X-ray spectrum to examine the presence of major elements such as magnesium, aluminium, silicon, calcium, titanium, iron, etc.
- This instrument has **detected the minor elements chromium and manganese** for the first time through remote sensing. The finding can lay the path for understanding magmatic evolution on the Moon and deeper insights into the nebular conditions as well as planetary differentiation.
- **Sodium**, also a minor element on the Moon surface, was detected without any ambiguity for the first time.
- CLASS has **mapped nearly 95% of the lunar surface in X-rays for the first time**.

### Studying the Sun

- One of the payloads, called **Solar X-ray Monitor (XSM)**, besides studying the Moon through the radiation coming in from the Sun, has **collected information about solar flares**. Solar flares are large eruptions of electromagnetic radiation from the Sun lasting from minutes to hours.
- XSM has observed a large number of microflares outside the active region for the first time, and this **has great implications on the understanding of the mechanism behind heating of the solar corona**.

### How does all this help?

- While the Orbiter payloads build upon existing knowledge of the Moon in terms of its surface, sub-surface and

exosphere, it also **paves the path for future Moon missions.**

- **Four aspects** - mineralogical and volatile mapping of the lunar surface, surface and subsurface properties and processes involved, quantifying water in its various forms across the Moon surface, and maps of elements present on the moon — will be key for future scope of work.
- A key outcome from Chandrayaan-2 has been the **exploration of the permanently shadowed regions as well as craters and boulders** underneath the regolith, the loose deposit comprising the top surface extending up to 3-4m in depth.
- This is expected to help scientists to zero in on future landing and drilling sites, including for human missions.

#### 4) Unified Payments Interface

##### About UPI

- Unified Payments Interface (UPI) is India's mobile based, 'fast payment' system that facilitates customers to make round the clock payments instantly using a **Virtual Payment Address** created by the customer.
- This **eliminates the risk of sharing bank account details by the remitter.**
- UPI **supports both Person to Person and Person to Merchant payments** as also it **enables a user to send or receive money.**
- It was developed by the **National Payments Corporation of India (NPCI)**, an RBI regulated entity.

##### How is it unique?

- Immediate money transfer through mobile device **round the clock 24\*7 and 365 days.**
- Single mobile application for accessing different bank accounts.
- **Single Click 2 Factor Authentication** – Aligned with the Regulatory guidelines, yet provides for a very

strong feature of seamless single click payment.

- Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.
- Conceptualized as a mobile application based solution primarily catering to internet compatible phones, UPI is now **available for non-internet based mobile devices** in the form of **dialing option (\*99#)** and is known as **USSD 2.0.**

##### Why in News?

- The RBI and the Monetary Authority of Singapore have announced a project to link their respective fast payment systems, Unified Payments Interface and **PayNow**. The linkage is targeted for operationalisation by July 2022.
  - *PayNow is the fast payment system of Singapore which enables peer-to-peer funds transfer service, available to retail customers through participating banks and Non-Bank Financial Institutions in Singapore.*
- The UPI-PayNow linkage will enable users of each of the two fast payment systems to make instant, low-cost fund transfers on a reciprocal basis without a need to get onboarded onto the other payment system.
- The UPI-PayNow linkage is a significant milestone in the development of infrastructure for cross-border payments between India and Singapore, and closely aligns with the **G20's financial inclusion priorities** of driving faster, cheaper and more transparent cross-border payments.

##### Related Information

##### About NPCI

- NPCI was incorporated in 2008 as an umbrella organization for operating retail payments and settlement systems in India.

- It is an initiative of the **RBI and Indian Banks' Association (IBA)** under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.
- It has been incorporated as a **"Not for Profit" Company** under the Companies Act 2013.
- It has changed the way payments are made in India through a bouquet of retail payment products such as **RuPay card, Immediate Payment Service (IMPS), Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), BHIM Aadhaar, National Electronic Toll Collection (NETC Fastag)** and **Bharat BillPay**.

## 5) BCG vaccine

### What is TB?

- Tuberculosis (TB) is a disease **caused by bacteria called Mycobacterium tuberculosis**. TB is an **ancient disease** and has been documented to have existed in Egypt as early as 3000 BC.
- TB most commonly affects the **lungs** (pulmonary TB), but it can also affect **other organs** (extra-pulmonary TB).
- TB **spreads through the air** when a person with TB of the lungs or throat coughs, sneezes, or talks.
- Common symptoms of TB are:
  - Cough for three weeks or more, sometimes with blood-streaked sputum; Fever, especially at night; Weight loss and Loss of appetite.

### Who is at risk?

- **Over 95% of cases and deaths are in developing countries.**
- People infected with TB bacteria have a 5–10% lifetime risk of falling ill with TB. Those with **compromised immune systems**, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a **higher risk of falling ill**.

- However, TB is **curable and preventable**.

### Treatment for TB

- **Directly Observed Treatment Short-course (DOTS)** is the strategy followed for treatment of TB. Tuberculosis treatment requires **at least 6 months of treatment**.
- Currently, **BCG (Bacillus Calmette-Guerin)** is the only licensed vaccine available for the prevention of TB.
- **BCG works well in certain places but not so well in others**. Generally, the farther a country is from the equator, the higher is the efficacy.
- However, BCG gives **excellent protection against severe forms of tuberculosis in children**.

### What is Multidrug-resistant TB?

- Anti-TB medicines have been used for decades and **strains that are resistant** to one or more of the medicines have been documented in every country surveyed. Drug resistance emerges when **anti-TB medicines are used inappropriately**, through incorrect prescription by health care providers, poor quality drugs, and patients stopping treatment prematurely.
- **Multidrug-resistant tuberculosis (MDR-TB)** is a form of TB caused by **bacteria that do not respond to isoniazid and rifampicin**, the 2 most effective first-line anti-TB drugs.
- MDR-TB is treatable and curable by **using second-line drugs**. However, second-line treatment options are **limited and require extensive chemotherapy** (up to 2 years of treatment) with medicines that are expensive and toxic.

### India and TB

- According to the **WHO's Global TB Report**, 10 million people developed TB in 2019 with 1.4 million deaths. **India accounts for 27% of these cases**.

- **BCG** was first introduced in a limited scale in 1948 and became a part of the National TB Control Programme in 1962.
- **National Tuberculosis Elimination Programme (NTEP)** aims at **eliminating TB by 2025** in India. It is crafted in line with other health sector strategies and global efforts, such as the World Health Organization's (WHO) End TB Strategy.
- **Nikshay Portal:** Nikshay is a unified ICT system for TB patient management and care in India and allows both public and private sector health care providers to manage their patients.
- **Nikshay Poshan Yojana (NPY):** Under the Nikshay Poshan Yojana government provide financial help to TB Patients for their treatment. The government provides Rs 500/- per month financial incentive to TB patients for their treatment and food. Nikshay Poshan Yojana Money will be transferred directly to the patient's bank account.

#### Why in News?

- 2021 marks the 100th year of the first use of BCG (Bacillus Calmette-Guerin), the vaccine against tuberculosis in humans.

## 6) C-DOT

### About C-DOT

- Centre for Development of Telematics (C-DOT) is an **autonomous Telecom R&D Centre of the Department of Telecommunications, Ministry of Communications**. It was established in **1984**.
- It is a registered society under the **Societies Registration Act, 1860**.
- In the initial years, C-DOT triggered a telecom revolution in rural India that was responsible for all-round socio-economic development. Over the years, C-DOT has evolved into a full-fledged telecom R&D institution and has capabilities to undertake large-scale state-of-the-art telecom technologies development programs.
- C-DOT as a torch bearer of indigenous telecom R&D continues to develop latest technology products in areas like Optical, Switching, Wireless, Security and Network Management while also working on futuristic technologies like M2M/IOT, 5G, AI, etc.

#### Why in News?

- The Centre for Development of Telematics observed its 38th Foundation Day recently.

## 7) Stablecoin

### What is a stablecoin?

- A stablecoin is a **type of cryptocurrency that is typically benchmarked to a fiat currency, such as the US dollar, or a commodity like gold**.
  - *Fiat money is a government-issued currency that is not backed by a commodity such as gold.*
- They are designed to **stay put in terms of value**. This means that while there will not be a fall in value, it will not rise either.

### Features of Stablecoins

- The **volatility in value of cryptocurrencies** remains a key reason they are seen as **less reliable** than government-issued currency even though there are many advantages that they provide over traditional currencies, like instant transactions and the absence of any requirement to rely on a third-party verifier, like a bank, to validate transactions. For Eg: **Bitcoin** was valued at \$4,000 in 2019, and at \$60,000 by May 2021.
- Stablecoins have gained traction as they attempt to **offer the best of both worlds**—the instant processing and security or privacy of payments of cryptocurrencies, and the volatility-free stable valuations of fiat currencies.
- For Eg: Popular stablecoins, like **Tether, TrueUSD**, etc. are **backed by**

**dollar deposits** held by the firm issuing the stablecoin. One stablecoin is worth one USD and the firm usually keeps audited reserves of US dollars to be able to cover all the stablecoin issued by it. So, if there is \$1 million value of a particular stablecoin in circulation, its creator would need to hold \$1 million in US dollars.

### What Are The Benefits?

- Cryptocurrencies arose with an aim of making **banking decentralised and expanding the reach and ease of spending money**. However, the likes of Bitcoin and Ether have become more popular as an asset than tokens that people can actually spend, mainly due to their **constantly fluctuating value**. By being anchored to a stable currency like the USD — which is monitored by a central bank that can take steps to keep its value from witnessing wild swings — **stablecoins offer a more reliable avenue of digital transactions**.

- So investors buy stablecoins **not to make a profit but instead as a place to store money within the cryptocurrency infrastructure** and to use when buying and selling other crypto assets.
- Advantages of stablecoins range from the **lack of a need to have a bank account** to undertake transactions to the **ease of transferring money** anywhere on Earth quickly and at a minute fraction of what it would cost via traditional banking and financial channels.

### Why in News?

- Stablecoins are exploding in popularity in the U.S. markets as they are a practical and cheap way to transact in cryptocurrency.
- Stablecoins have moved from virtual nonexistence to a more than \$120 billion market in a few short years, with the bulk of that growth in the past 12 months.

## Reports and Indices

### 1) Global Innovation Index

#### About the Index

- Global Innovation Index (GII) is co-published annually by **Cornell University, INSEAD Business School, and the World Intellectual Property Organization (WIPO)**, a specialized agency of the United Nations.
- **GII ranks global economies according to their innovation capabilities**, using roughly 80 indicators, grouped into **innovation inputs and outputs**.

- The metrics include institutions, human capital and research, infrastructure, market sophistication and business sophistication, knowledge and technology outputs and creative outputs.
- Over the years, the GII has established itself as a policy tool for various governments and helped them to reflect upon the existing status quo.

#### Why in News?

- The Global Innovation Index 2021 was released recently.

### TOP THREE INNOVATION ECONOMIES BY INCOME GROUP

Incomes	Countries (top three)
High income	Switzerland, Sweden, USA
Upper middle income	China, Bulgaria, Malaysia
Lower middle income	Vietnam, India, Ukraine
Low income	Rwanda, Tajikistan, Malawi

Source: Global Innovation Index 2021 by World Intellectual Property Organization

#### Highlights of the Index

- **India** has climbed two spots and has been **ranked 46th** in the Global Innovation Index 2021 rankings (48 in GII 2020).
- India has been on a rising trajectory over the past several years in the GII and **rose from a rank of 81 in 2015 to 46 in 2021**.
- **India ranks second among 34 lower middle-income group economies and first among the 10 economies in Central and Southern Asia**.
- The consistent improvement in the GII ranking is owing to the immense knowledge capital, the vibrant startup ecosystem and the work done by the public and the private research organisations.
- The Scientific Departments like the Department of Atomic Energy; the

Department of Science and Technology; the Department of Biotechnology and the Department of Space have played a pivotal role in enriching the National Innovation Ecosystem.

- **Switzerland, Sweden, U.S., and U.K.** continue to lead the innovation ranking, and have all ranked in the top 5 in the past three years.

### 2) State Food Safety Index

#### About the Index

- The State Food Safety Index has been developed by the **Food Safety and Standards Authority of India (FSSAI)** to measure the performance of states on various parameters of Food Safety.
- This index is based on performance of State/ UT on **five significant parameters – Human Resources and**

**Institutional Data** having 20% of the weightage, **Compliance** with 30% weightage, **Food Testing - Infrastructure and Surveillance** being given 20% weightage, **Training and Capacity Building** having 10% weightage and **Consumer Empowerment** being given 20% weightage.

- The Index is a dynamic quantitative and qualitative benchmarking model that provides an objective framework for evaluating food safety across all States/UTs.
- The Index is prepared for **three categories** - large states, small states and Union Territories to ensure comparability among similar entities.

#### Why in News?

- FSSAI has released its State Food Safety Index for 2020-21.

#### Highlights of the Index

- **Gujarat** topped the ranking among the large states with 72 points followed by **Kerala** (70) and **Tamil Nadu** (64) in the second and third place respectively.

- Among the small states, **Goa** topped the list, followed by **Meghalaya** and **Manipur**.
- As far as the eight UTs are concerned, **Jammu and Kashmir** was ranked as the UT with highest food safety, while **Andaman and Nicobar Islands** were ranked second and **national capital of Delhi** was ranked third.

#### About FSSAI

- It is an **autonomous statutory body** established under the Food Safety and Standards Act, 2006.
- The **Ministry of Health & Family Welfare** is the administrative Ministry of FSSAI.
- FSSAI is responsible for protecting and promoting public health through the regulation and supervision of food safety.

# Organisations

## 1) BIMSTEC

### What's in the news?

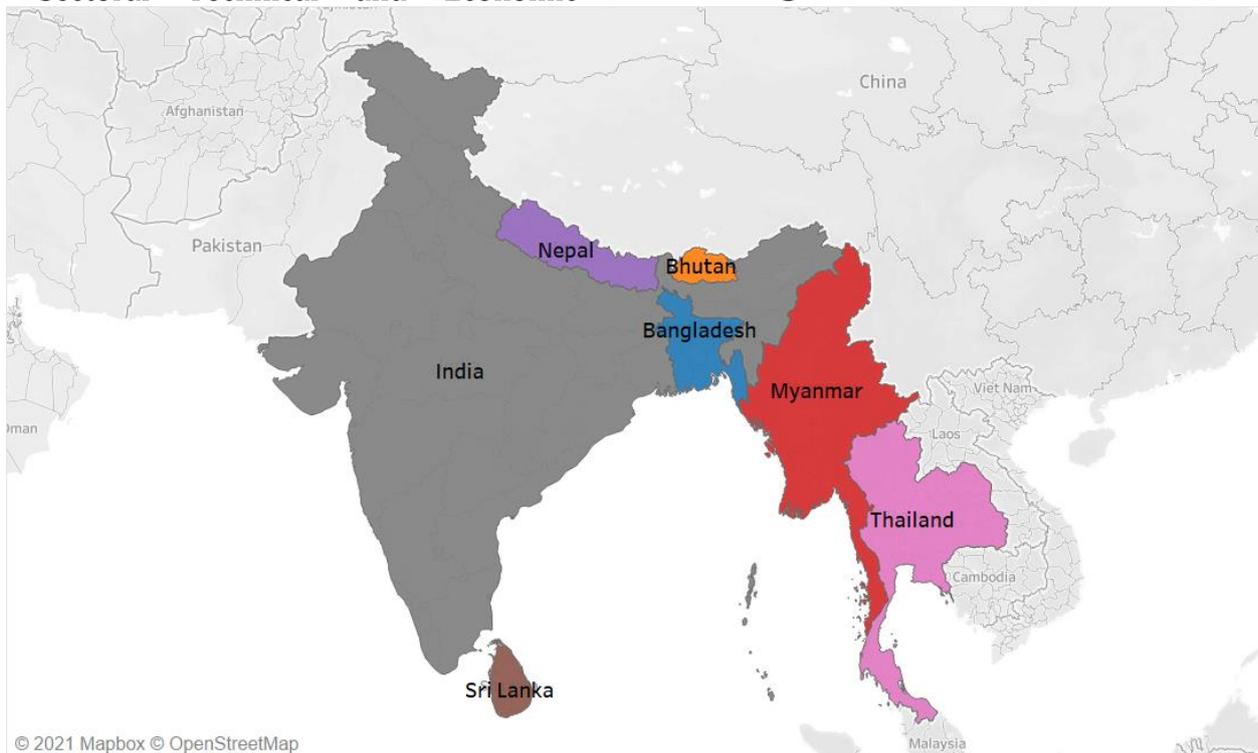
- India recently hosted the 8th Meeting of Agriculture Experts of Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Countries virtually.

### About BIMSTEC

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic

Cooperation is a regional organisation that comprises **seven member states adjacent to the Bay of Bengal.**

- It includes: five deriving from South Asia, including **Bangladesh, Bhutan, India, Nepal, Sri Lanka**, and two from Southeast Asia, including **Myanmar and Thailand.**
- It is headquartered in **Dhaka, Bangladesh.**



### Background

- BIMSTEC came into existence on June 6, 1997 through the **Bangkok Declaration.**
- Initially, the economic bloc was formed with four Member States with the acronym '**BIST-EC**' (Bangladesh, India, Sri Lanka and Thailand Economic Cooperation)
- Following the inclusion of **Myanmar** on 22 December 1997, the group was renamed 'BIMST-EC'.
- With the admission of **Nepal and Bhutan** in 2004, the name of the grouping was changed to 'Bay of Bengal Initiative for Multi-Sectoral

Technical and Economic Cooperation' (BIMSTEC).

### Priority Sectors

- BIMSTEC is a sector-driven cooperative organization.**
- BIMSTEC has **14 priority areas** of cooperation, namely (i) Trade and Investment (ii) Technology (iii) Energy (iv) Transportation and Communication (v) Tourism (vi) Fisheries (vii) Agriculture (viii) Cultural Cooperation (ix) Environment and Disaster Management (x) Public Health (xi) People-to-People Contact (xii) Poverty Alleviation (xiii) Counter Terrorism and Transnational Crime and (xiv) Climate Change.

## Founding Principles

- The founding principles of BIMSTEC are as follows:
  - Cooperation within BIMSTEC will be based on respect for the **principle of sovereign equality, territorial integrity, political independence, no-interference in internal affairs, peaceful co-existence and mutual benefit.**
  - Cooperation within BIMSTEC will constitute an addition to and not be a substitute for bilateral, regional or multilateral cooperation involving the Member States.

## Significance

- The BIMSTEC region is home to around 1.5 billion people which constitute around 22% of the global population with a combined gross domestic product (GDP) of 2.7 trillion.
- The objective of BIMSTEC is to harness shared and accelerated growth through mutual cooperation in different areas of common interests.
- The regional group constitutes a **bridge between South and South East Asia** and represents a reinforcement of relations among these countries.
- BIMSTEC has also established a platform for **intra-regional cooperation between SAARC and ASEAN members.**

## What is India's interest in the grouping?

- The two Southeast Asian countries in the grouping, Myanmar and Thailand, have a crucial place for India's ambitious connectivity plans for the **North-Eastern region.**
- **India's Act East Policy**—within it, BIMSTEC, in particular—is seen as a critical alternative to the country's non-participation in the China's Belt and Road Initiative (BRI). A crucial driver of this policy is India's

Northeast, as seen in a renewed infrastructure push in the region.

- In terms of connectivity, BIMSTEC has several projects that, when finished, could transform the movement of goods and vehicles through the countries in the grouping.
- For eg: **Kaladan Multimodal project.** The project envisages connecting **Kolkata to Sittwe port** in Myanmar, and then Mizoram by river and road. India and Myanmar had signed a framework agreement in 2008 for the implementation of this project. It's yet to be finished.



- Another important project is the **Asian Trilateral Highway** connecting **India and Thailand through Myanmar.** The highway will run from Moreh in Manipur to Mae Sot in Thailand via Myanmar and represents a significant step in establishing connectivity between India and Southeast Asian countries. The project is expected to be completed soon.



- With the India-Pakistan disputes coming in the way of a smooth functioning of the **SAARC**, groupings such as BIMSTEC can take forward the

concept of regional cooperation in a different manner.

### Untapped potential

- Better connectivity projects would help India leverage the untapped potential of BIMSTEC's possible trade linkages.
- Currently, **intra-BIMSTEC trade** has grown at a meagre rate of 0.62% annually. The **absence of free trade agreements** and the **lack of seamless movement of goods and services** within the region explain these low levels of intra-regional trade.
- Apart from improving connectivity and enhancing regional trade, BIMSTEC could also help in partially addressing **India's growing energy requirements**. India, along with other BIMSTEC countries, is exploring energy opportunities at the Rakhine

coast of Myanmar in the northern part of the Bay of Bengal.

- In this context, BIMSTEC has already established an **energy centre in New Delhi** to provide logistic, technical and research support.
- There has been a view that the proliferation of commitments via 14 priority areas didn't yield tangible results over the past two decades and the regional grouping **should trim its list of priorities**.

### Way Forward

- Being the largest and most developed country in this grouping, the onus of steering the organisation forward lies with India. However, if India pursues an approach of selective usage, it restricts the ability of the organisation to live up to its full potential.

## Polity

### 1) EC mulls deregistering inactive political parties

#### Unrecognised political parties

- Either newly registered parties (under the **Representation of Peoples Act, 1951**) or those which have not secured enough percentage of votes in Assembly or General Elections to become a State party or those which have never contested in elections since being registered are considered **unrecognised parties**. Such parties don't enjoy all the benefits extended to the recognised parties.

#### Provisions for recognised party status

- A recognised political party shall either be a **National party or a State party** if it meets certain laid down conditions.
- The **Election Symbols (Reservation and Allotment) Order, 1968**, lays down the criteria for declaring any registered political party as a national party or a state party.

#### National Party

- As per the Election symbols order, a registered political party needs to **fulfil at least one of the following three conditions** to be recognised as a national party:
  - ✓ It needs to win a minimum **two percent** of seats in the Lok Sabha (11 seats) from at least three different states.
  - ✓ It needs to get **at least six percent of votes in four states** in Lok Sabha and Assembly elections, in addition to **winning four Lok Sabha seats**.
  - ✓ It needs to get **recognised as a state party in four or more states**.

#### State Party

- In order to be recognised as a state party, a political party needs to **fulfil at least one of the four criteria** laid down by the Election Commission of India.

- A political party will be recognised as a state party:
  - ✓ If it wins **three percent of the total seats** in the Legislative Assembly of the state (subject to a minimum of three seats).
  - ✓ If it wins one Lok Sabha seat for every 25 Lok Sabha seats allotted for the state.
  - ✓ If it gets **at least six percent of votes** in a state during a Lok Sabha or Assembly election. In addition, it also needs to win **at least one Lok Sabha or two Legislative Assembly seats**.
  - ✓ If it wins **at least eight percent votes** in a state during the Lok Sabha or Legislative Assembly elections.

#### Benefits of being a recognised state party or national party

- If a party is recognised as a 'State Party', it is entitled for exclusive allotment of its **reserved symbol to the candidates set up by it in the State of States in which it is so recognised**, and if a party is recognised as a 'National Party' it is entitled for exclusive allotment of its **reserved symbol to the candidates set up by it throughout India**.
- The registered unrecognised political parties do not have the privilege of contesting elections on affixed symbol of their own. They have to choose from a list of '**free symbols**' issued by the Commission.
- However, the candidates set up by a political party registered with the Election Commission of India will get **preference in the matter of allotment of free symbols** vis-à-vis purely independent candidates.
- Recognised 'State' and 'National' parties **need only one proposer** for filing the nomination and are also entitled for **two sets of electoral rolls**

free of cost and **broadcast/telecast facilities** over Akashvani/Doordarshan during general elections.

### Why in News?

- The Election Commission (EC) has notified the updated list of registered political parties that included 2,796 registered unrecognised parties. On the latest list of parties are **eight national recognised parties** — the All-India Trinamool Congress, the Bahujan Samaj Party, the BJP, the CPI, the CPI(M), the INC, the NCP and the National People's Party, which is the latest addition, and **54 recognised State parties**, some of which are recognised in multiple States.
- The Commission has flagged the presence of political parties that have not contested any election for many years (only 673 parties, including recognised and unrecognised, had participated in the 2019 Lok Sabha elections) and **sought powers to deregister them or act against them, if required.**
- The Law Ministry is yet to respond to the EC's recent proposal seeking the power to deregister inactive parties.
- While the EC has the power to **register parties under the Representation of the People Act, 1951**, it **does not have the power to deregister parties that are inactive.**

## 2) Armed Forces Special Powers Act

### About AFSPA

- Passed in 1958 for the North-East and in 1990 for Jammu & Kashmir, the Armed Forces Special Powers Act (AFSPA) **gives armed forces special powers to control "disturbed areas"**, which are designated by the government when it is of the opinion that a region is in such a **disturbed or dangerous condition** that the use of

armed forces in aid of civil power is necessary.

- An area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
- The **Central Government**, or the **Governor of the State** or **administrator of the Union Territory** can declare the whole or part of the State or Union Territory as a disturbed area.
- Under its provisions, the armed forces have been **empowered to open fire, enter and search without warrant, and arrest any person** who has committed a cognisable offence, all while having immunity from being prosecuted.
- The law has been repealed where insurgencies have subsided, and when governments have gained confidence in managing the region using the police force.
- Critics both in India and abroad have criticised government agencies for acting with impunity under AFSPA. **Manipuri activist Irom Sharmila** had been on a 16-year hunger strike in protest against AFSPA. The **Jeevan Reddy Committee** formed in 2004 has recommended a complete repeal of the law.

### Why in News?

- The **Assam government** extended the "Disturbed Area" status of the state for another six months under the Armed Forces (Special Powers) Act.
- The AFSPA was imposed in Assam in **November 1990** and has been extended every six months since then after a review by the state government.
- In the Northeast, the AFSPA is in force in Assam, Nagaland, Manipur (excluding Imphal Municipal Council Area), Changlang, Longding and Tirap districts of Arunachal Pradesh, and areas falling within the jurisdiction of

eight police stations in Arunachal Pradesh, bordering Assam.

### 3) Foreign Contribution (Regulation) Amendment Act, 2020

#### About Foreign Contribution (Regulation) Act, (FCRA), 2010

- The FCRA 2010 regulates the acceptance and utilisation of foreign contribution by individuals, associations and companies. Foreign contribution is the donation or transfer of any currency, security or article (of beyond a specified value) by a foreign source.
- The objective is to prevent use of foreign contribution or foreign hospitality for any activity detrimental to the national interest.
- All societies, companies, associations and NGOs have to register themselves under the FCRA and fulfil definite criteria to be eligible for foreign funds.
- The registration is initially valid for five years and it can be renewed subsequently if they comply with all norms.
- Registered associations can receive foreign contributions for social, educational, religious, economic and cultural purposes.
- Filing of annual returns, on the lines of Income Tax, is compulsory.

#### Who cannot receive foreign donations?

- Members of the legislature and political parties, government officials, judges and media persons are prohibited from receiving any foreign contribution.
- However, in 2017 the Ministry of Home Affairs (MHA), amended the FCRA law paving the way for political parties to receive funds from the Indian subsidiary of a foreign company or a foreign company in which an Indian holds 50% or more shares.

#### FCRA Amendment Act, 2020

- Last year, the Parliament passed the Foreign Contribution (Regulation) Amendment Act, 2020 which amends the Foreign Contribution (Regulation) Act, 2010.

#### Highlights of the 2020 Act

##### Prohibition to accept foreign contribution

- The amendment adds **public servants** (as defined under the Indian Penal Code) to the list of persons who are prohibited to accept any foreign contribution.
- Public servant includes any person who is in service or pay of the government, or remunerated by the government for the performance of any public duty.

##### Transfer of foreign contribution

- The amendment act prohibits the transfer of grants received under FCRA to any other person or organisation.

##### Aadhaar for registration

- Any person seeking prior permission, registration or renewal of registration must provide the **Aadhaar number of all its office bearers, directors or key functionaries, as an identification document.**
- In case of a foreigner, they must provide a copy of the passport or the Overseas Citizen of India card for identification.

##### FCRA account

- Organisations can receive the foreign funds in a bank account designated as the 'FCRA account' **only in branches of the State Bank of India, New Delhi**, as notified by the central government.

##### Reduction in use of foreign contribution for administrative purposes

- Under the 2010 Act, a person who receives foreign contribution must use it only for the purpose for which the contribution is received. Further, they must not use more than 50% of the

contribution for meeting administrative expenses.

- The amendment act **reduces this limit to 20%**.

#### **Suspension of registration**

- Under the 2010 Act, the government may suspend the registration of a person for a period not exceeding 180 days.
- The latest amendment adds that such **suspension may be extended up to an additional 180 days**.

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

- The Ministry of Home Affairs has extended the deadline till December 31 for NGOs to apply for renewal of their Foreign Contribution (Regulation) Act (FCRA) registration certificates.
- The **registration is mandatory for associations and NGOs to receive foreign funds**. The FCRA registration is renewed **every five years**.

### **4) National Register of Citizens**

#### **What is it?**

- The National Register of Citizens (NRC) is the register containing names of Indian citizens.
- NRC was prepared first in **1951** after the conduct of the Census of 1951.
- It is being updated and that too **only in Assam**.
- Under NRC, one has to link oneself to a family member whose name had appeared either in the **NRC of 1951**, or to any of the **state's electoral rolls prepared till midnight of 24th March 1971**.
- If the applicant's name is not on any of these lists, he/she can produce any of the **12 other documents dated up to March 24, 1971**.

#### **Why 1971?**

#### **Assam Accord**

- Popular movements between 1979 and 1985 against undocumented immigrants in Assam led to the Assam Accord.

- The Assam Accord (1985) was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on **15 August 1985**.
- As per the accord, all migrants who came to Assam prior to March 24, 1971, would be given citizenship, after fulfilling certain criteria.
- Foreigners who came to Assam on or after March 25, 1971, shall continue to be **detected, deleted and practical steps shall be taken to expel such foreigners**.
- However, the provisions in the Assam accord were not implemented for a long time.
- Finally the **Supreme Court**, which is supervising the entire process, set a hard deadline of August 31, 2019, for the final NRC.

#### **Final Draft**

- The final draft of NRC was released in August 2019 which **excluded 19 lakh of the 3.3 crore applicants in Assam**.
- Each excluded person can file an appeal in **Foreigners Tribunals**.
- The appellant then has the option of approaching the **High Court and Supreme Court**.

#### **Foreigners Tribunal**

- The foreigners tribunals are quasi-judicial bodies, unique to Assam, to determine if a person staying illegally is a "foreigner" or not.
- The Ministry of Home Affairs (MHA) has amended the **Foreigners (Tribunals) Order, 1964**, and empowered **district magistrates** in all States and Union Territories to set up tribunals to decide whether a person staying illegally in India is a foreigner or not.
- Earlier, the powers to constitute tribunals were vested only with the Centre.

#### **Current Status**

- The NRC was published two years back, however, the **Registrar General of India is yet to notify it**. At the same time, the Supreme Court has not heard the matter since January 6, 2020. The Assam government too has failed to accept the NRC and wants the list amended.

#### Why in News?

- Lakhs of people living in Assam, who had their names registered in the National Register of Citizens in 2019, have not received their Aadhaar numbers yet. As a result, they are unable to avail of the benefits that come with linking bank accounts with Aadhaar number.
- In August 2019, 27 lakh people provided their biometrics, but around 19 lakh of them did not find their names in the NRC. Several of those who got registered in the NRC too have failed to get Aadhaar so far.
- The problem exists because of confusions that prevail in the NRC exercise.

#### Related Information

##### Registrar General of India

- The office of Registrar General and Census Commissioner of India was founded in 1961 by the **Ministry of Home Affairs** for arranging, conducting and analysing the results of the demographic surveys of India, including census and linguistic survey.

### 5) What has the Supreme Court ruled on 'creamy layer'?

#### Context

- Recently, the Supreme Court observed that **economic criterion cannot be the sole basis for identifying the 'creamy layer'** of a backward class, and that **other factors like social advancement, education, employment, too, matter**.
- The judgment came on a writ petition filed by a group from Haryana, challenging two notifications issued by

the State government in 2016 and 2018, under the Haryana Backward Classes (Reservation in Services and Admission in Educational Institutions) Act, 2016.

#### What were the notifications?

- The 2016 notification identified as **'creamy layer' backward class members whose gross annual income exceeded ₹6 lakh**. It said backward class sections whose families earn **less than ₹3 lakh would get priority** over their counterparts who earn more than ₹3 lakh but less than ₹6 lakh.
- The Supreme Court struck down the notifications as a violation of the 2016 Act. It said Section 5 (2) of the Act required the State to **consider social, economic and other factors together** to identify and exclude backward class members as 'creamy layer'.

#### Who belongs to the 'creamy layer'?

- The 'creamy layer' concept was introduced in the Supreme Court's **Indra Sawhney judgment**, delivered by a nine-judge Bench in **1992**.
- Though it **upheld the government's decision based on the Mandal Commission's report to give 27% reservation to Other Backward Classes**, the court found it necessary to **identify sections of backward classes** who were already "highly advanced socially as well as economically and educationally".
- The court believed that these wealthy and advanced members form the **'creamy layer' among backward classes**. The judgment **directed the State governments to identify the 'creamy layer' and exclude them from the purview of reservation**.
- However, certain States like Kerala did not promptly implement the judgment. This led to the **Indra Sawhney-II case in 2000**. In this, the court went to the extent of **determining the 'creamy layer'** among backward classes.

- The judgment held that persons from backward classes who **occupied posts in higher services** such as IAS, IPS and All India Services had reached a higher level of social advancement and economic status, and therefore, were not entitled to be treated as backward. Such persons were to be treated as 'creamy layer' without any further inquiry.
- Likewise, **people with sufficient income** who were in a position to **provide employment to others** should also be taken to have reached a higher social status and be treated as "outside the backward class".
- Other categories included persons with **higher agricultural holdings or income from property**. Thus, a reading of the Indra Sawhney judgments shows that **social advancement, including education and employment, and not just wealth**, was key to identifying the 'creamy layer'.

#### **Why is it difficult to draw the line?**

- The identification of 'creamy layer' has been a thorny issue. The basic question here is how rich or advanced should a backward class section be to invite exclusion from reservation.
- Justice Jeevan Reddy, in the Indra Sawhney judgment, pointed out that "The basis of exclusion **should not merely be economic, unless the economic advancement is so high that it necessarily means social advancement**".
- A Constitution Bench of the Supreme Court in **Jarnail Singh versus Lachhmi Narain Gupta (2008)** noted the necessity of applying the creamy layer concept. The court said unless the creamy layer principle was applied those genuinely deserving reservation would not access it. The apex court held that the **creamy layer principle was based on the fundamental right to equality**.

## Economy

### 1) What is the need for a 'bad bank'?

#### What's in the news?

- The Union Cabinet has recently approved Rs 30,600 crore government guarantee for the **National Asset Reconstruction Company (NARCL)**, thereby paving the way for operationalisation of bad bank.
- It will acquire non-performing assets (NPAs) worth about **Rs 2 lakh crore** from various commercial banks in different phases. Another entity — **India Debt Resolution Company Ltd (IDRCL)**, which has also been set up — will then try to sell the stressed assets in the market. The **NARCL-IDRCL structure is the new bad bank.**
- The proposal has come as a welcome move for the banking sector which has been reeling under the weight of bad loans. One of the key ideas behind formation of bad banks is to **de-stress the balance sheets of the banks.**
  - *NPA is a loan or advance for which the principal or interest payment remains overdue for a period of more than 90 days.*

#### What is a bad bank?

- A bad bank is a corporate structure that **acquires NPAs from banks and resolves them.**
- The bank, which sells the stressed assets to the bad bank, is now relieved of the burden of the bad loans and can focus instead on growing its business by advancing fresh loans to borrowers requiring credit. The cleaner balance sheet also makes it relatively easier for the lender to raise fresh capital, if required.
- In Budget 2021-22, Finance Minister Nirmala Sitharaman had announced setting up of a bad bank as part of resolution of bad loans worth about Rs 2 lakh crore.

#### How will the NARCL-IDRCL work?

- The NARCL will first purchase bad loans from banks. It will pay **15% of the agreed price in cash** and the **remaining 85% will be in the form of government-guaranteed security receipts.** When the assets are sold, with the help of IDRCL, the commercial banks will be paid back the rest.
- If the bad bank is unable to sell the bad loan, or has to sell it at a loss, then the **government guarantee will be invoked** and the difference between what the commercial bank was supposed to get and what the bad bank was able to raise will be paid from the Rs 30,600 crore that has been provided by the government.
- The value of bad loans being carved out of bank books for transfer to the NARCL is around **Rs 2 lakh crore.** About Rs 90,000 crore in bad loans will be transferred in the first phase. The guarantee of Rs 30,600 crore will cover the entire pool of Rs 2 lakh crore.
- The **government guarantee will be valid for a period of five years.**
- To disincentivise delay in resolution, NARCL has to pay a **guarantee fee which increases with the passage of time.**

#### How bad bank will benefit businesses, consumers?

- If a bank has high NPAs, a large part of its profits would be utilized to cut losses. As a result, any bank with high NPAs is likely to become more risk averse and would be **less willing to lend money to borrowers.** It would become more difficult for businesses and consumers to take loans from banks, thereby **impacting the overall robustness of the economy.**
- Moreover, in India, a large portion of NPAs is with the **government-owned public sector banks.** In the past, the government had to infuse fresh capital to improve the financial health of PSBs.

The government infusing fresh capital in PSBs means **less money for other schemes**.

### Comparison with global peers

- As per **World Bank data**, the **share of NPA to gross loans in India is significantly higher compared to developed western economies**. It also **exceeds most other emerging economies**.
- In India, the level of NPAs rose alarmingly since 2016. In a big way, this was a result of the RBI requiring banks to clearly recognise the bad loans on their books. The fact is several banks had witnessed deterioration of their loans portfolio since the global financial crisis of 2008-09.
- As of March 2021, the **total bad loans in the banking system amounted to Rs 8.35 lakh crore**.

### Criticisms

- Critics of the bad bank concept, however, contend that the government's role in guaranteeing some part of the NPAs could lead to **laxity on the part of bankers in assessing risk and thus creating fresh bad loans**.

## 2) Petroleum and Natural Gas Regulatory Board

### About PNGRB

- Petroleum and Natural Gas Regulatory Board (PNGRB) is a **statutory body** for the Petroleum and Natural Gas Sector constituted under the PNGRB Act, 2006 on 1st October, 2007.
- The objective of PNGRB is to **protect the interests of consumers and entities** engaged in specified activities relating to petroleum, petroleum products and natural gas and to **promote competitive markets**.
- The board has also been mandated to regulate the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas

excluding production of crude oil and natural gas so as to ensure uninterrupted and adequate supply of petroleum, petroleum products and natural gas in all parts of the country.

- The appeals against the decisions of the Board go before the **Appellate Tribunal** established under the **Electricity Act, 2003**.

### Why in News?

- The Petroleum and Natural Gas Regulatory Board has started inviting bids for development of the city gas distribution network in 65 geographical areas covering 208 districts across the country.

## 3) Anti-dumping duties

### What is dumping?

- Dumping is the practice of selling a product in a foreign market at an **unfairly low price** (a price that is lower than the cost in the home market, or which is lower than the cost of production) in order to **gain a competitive advantage over other suppliers**.
- Dumping is done to gain access to the foreign market and eliminate competition. It creates a **monopoly** in the market.
- Dumping enables consumers in the importing country to obtain access to goods at an **affordable price**. However, it can also destroy the local market of the importing country, which can result in layoffs and the closure of businesses.

### Anti-dumping duty

- An anti-dumping duty is a protectionist tariff that a **domestic government imposes on foreign imports** when it believes that the goods are being "dumped" – through the low pricing – in the domestic market.
- Anti-dumping duty is imposed to **protect local businesses and markets** from unfair competition by foreign imports.

### III effects of such duties

- While the intention of anti-dumping duties is to save domestic jobs, these tariffs can also lead to **higher prices for domestic consumers**.
- In the long-term, anti-dumping duties can **reduce the international competition of domestic companies** producing similar goods.

### Dumping and WTO

- The **World Trade Organization (WTO)** plays a critical role in the regulation of anti-dumping measures.
- The **WTO Anti-Dumping Agreement** allows the government of the affected country to take legal action against the dumping country as long as there is **evidence of genuine material injury to industries in the domestic market**.
- The government must show that dumping took place, the extent of the dumping in terms of costs, and the injury or threat to cause injury to the domestic market.
- In other cases, the WTO intervenes to prevent anti-dumping measures.

### Why in News?

- The **Directorate General of Trade Remedies (DGTR)** under the **Ministry of Commerce** has recommended imposition of anti-dumping duty on a pharma raw material—**Ceftriaxone Sodium Sterile**— from China to guard domestic players from cheap imports.
- DGTR has recommended the duty after concluding in its probe that the **API (active pharma ingredient)** from China has been exported at dumped prices into India, which impacted the domestic industry.
  - *APIs refer to the biologically active component of a drug product. APIs are intended to furnish pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment, or prevention of disease or to affect the structure or function of the body.*

- *Other ingredients of Drug products are commonly known as "excipients."*

## 4) 4-year moratorium on AGR dues

### What is AGR?

- Telecom operators are required to **pay licence fee and spectrum charges** in the form of 'revenue share' to the Centre. The revenue amount used to calculate this revenue share is termed as the **adjusted gross revenues (AGR)**.

### What is the issue?

- According to the Department of Telecommunications' (DoT), the calculations should incorporate **all revenues earned by a telecom company** – including from **non-telecom sources** such as deposit interests and sale of assets.
- The companies, however, have been of the view that AGR should comprise the revenues generated from telecom services only and non-telecom revenues should be kept out of it.
- The tussle between DoT and the telecom companies has been ongoing since 2005.
- In 2019, the Supreme Court upheld the DoT's definition of AGR and ordered telecom companies to pay dues worth over ₹1.4 lakh crore to the government, which they are yet to complete.

### Why in News?

- The Union Cabinet has announced several steps to offer relief to telecom companies burdened by large regulatory dues and attract foreign capital into the telecom sector.
- Among the most pertinent was the **rationalisation of the definition of adjusted gross revenues**, with the government saying that **non-telecom revenues will not be included in the calculation of AGR**, bringing much relief to incumbent telecom players

such as Bharti Airtel and Vodafone-Idea.

- Telecom companies will also get a **four-year moratorium** to repay dues to the government.
- Also, **100 per cent foreign direct investment in telecom via the automatic route** has been approved, and the regime of heavy interest, penalty and interest on penalty on payment of licence fees, spectrum charges and all kinds of other charges have been rationalised.
- In addition to these, **spectrum auctions will be done for 30 years instead of 20.**

#### Will the measures help telecom companies?

- The relief measures announced by the government are expected to free up cash from the balance sheets of the companies. The hope is that they will use this cash to invest in expanding and strengthening their business, thus becoming more capable of paying back their dues.
- It should be noted that the **government has not agreed to waive off dues** that companies already owe the government or the dues that will arise over the next four years.

#### Are telecom tariffs set to rise?

- A major reason for the crisis in the telecom sector has been the **intense competition**. This has led to the overwhelming supply of telecom services, in turn leading to lower prices that have made **India a country with one of the lowest telecom tariffs in the world.**
- So, some believe the government should let troubled telecom companies like Vodafone Idea to fail and exit the market, just as other telecom companies have done in the past. This will cause supply to drop and prices to rise.
- The last major increase in tariffs came in December 2019. A further rise in

tariffs is expected as the companies try to boost their average revenue per user to match the rising costs.

## 5) Index of Eight Core Industries

### About ICI

- The monthly Index of Eight Core Industries (ICI) is a **production volume index**.
- The objective of the ICI is to provide an advance indication on production performance of industries of 'core' nature. These industries are likely to impact on general economic activities as well as industrial activities.
- The Eight Core Industries- **Electricity, steel, refinery products, crude oil, coal, cement, natural gas and fertilizers-** comprise **40.27 per cent of the weight of items included in the Index of Industrial Production (IIP).**
- **Industry Weight (In percentage)**
  - Petroleum & Refinery production - 28.04
  - Electricity generation - 19.85
  - Steel production - 17.92
  - Coal production - 10.33
  - Crude Oil production - 8.98
  - Natural Gas production - 6.88
  - Cement production - 5.37
  - Fertilizers production - 2.63
- Since these eight industries are the essential "basic" and/or "intermediate" ingredient in the functioning of the broader economy, mapping their health provides a fundamental understanding of the state of the economy.
- ICI is released by the **Office of Economic Advisor**, under the Ministry of Commerce and Industries. The base year of the ICI is **2011-12.**

### Why in News?

- Output from India's eight core sectors accelerated for the second successive month in August, rising **11.6%**, compared to a 6.9% contraction recorded a year ago.

## 6) Consumer Price Index (CPI)

### About CPI

- It is an index which measures the weighted average of prices of a basket of **consumer goods and services** such as transportation, food and medical care.
- It is calculated by measuring price changes for each item in the **predetermined basket of goods and services** and averaging them.
- It is released by the **National Statistical Office (NSO)** under the Ministry of Statistics and Programme Implementation.
- The base year used to calculate CPI in India is **2011-2012**.

### WPI Vs CPI

- While the Wholesale Price Index (WPI) keeps track of the wholesale price of goods, the CPI measures the average price that households pay for a basket of different goods and services.
- The CPI basket consists of **services like housing, education, medical care, recreation etc. which are not part of WPI basket**. A significant proportion of WPI item basket represents **manufacturing inputs and intermediate goods** like minerals, basic metals, machinery etc. whose prices are influenced by global factors but these are not directly consumed by the households and are **not part of the CPI item basket**.
- Even as the WPI is used as a key measure of inflation in some economies, the RBI **no longer uses it for policy purposes**. The central bank currently uses the **Consumer Price Index** as a key measure of inflation to set the monetary and credit policy.
- Under the **flexible inflation targeting (FIT) framework**, RBI aims to contain CPI based inflation **within 4 percent with a band of (+/-) 2 percent**.

### Why in News?

- India's retail inflation based on the Consumer Price Index marginally

eased to 5.3% in August, staying within the Reserve Bank of India's comfort zone.

- The CPI was 5.59% in July and 6.69% in August 2020.

## 7) Infrastructure Investment Trusts

### About InvITs

- **Infrastructure and real estate** are the two most critical sectors in any developing economy. A well-developed infrastructural set-up **propels the overall development of a country**. It also facilitates a **steady inflow of private and foreign investments**, and thereby **augments the capital base** available for the growth of key sectors in an economy, as well as its own growth, in a sustained manner.
- Given the importance of these two sectors in the country, and the **paucity of public funds** available to stimulate their growth, it is imperative that **additional channels of financing are put in place**.
- An Infrastructure Investment Trust (InvITs) is **Collective Investment Scheme similar to a mutual fund**, which enables direct investment of money from individual and institutional investors in infrastructure projects to earn a small portion of the income as return. The objective of InvITs is to **facilitate investment in the infrastructure sector**.
- InvIT invests in infrastructure projects. The projects can be in sectors such as transport (road, bridges, railways), energy (electricity generation, transmission, distribution), communication, etc.
- The InvIT is designed as a **tiered structure** with **Sponsor** setting up the InvIT which in turn invests into the eligible infrastructure projects either directly or via **special purpose vehicles (SPVs)**.

- *SPV is an entity which is formed for a single, well-defined and narrow purpose. An SPV can be formed for any lawful purpose.*
- InvITs can be established as a **trust** and registered with **Securities and Exchange Board of India (SEBI)**.
- The InvITs are **regulated by the SEBI (Infrastructure Investment Trusts) Regulations, 2014**.

#### Who can invest in InvITs?

- In 2019, capital market regulator **SEBI reduced the minimum investment limits on InvITs**, making them more accessible. The minimum subscription limit for InvITs was reduced from ₹10 lakh to **₹1 lakh**.

#### Why in News?

- Financial experts have noted that changes to the Infrastructure Investment Trusts structure and regulations are among crucial modifications required to attract retail investors to the **National Monetisation Pipeline** (*Refer Pulse August 2021 edition*).
- They suggested the government to **extend Insolvency and Bankruptcy Code provisions** to InvITs which would help lenders access a faster and more effective debt restructuring and resolution option.

#### About IBC

- Insolvency is a situation where individuals or companies are unable to repay their outstanding debt.
- The Insolvency and Bankruptcy Code (IBC) creates a **time-bound process for insolvency resolution** of companies and individuals. The resolution process typically provides for the payoff of debt by merger, acquisition, or restructuring of the company. These processes will be completed within **180 days** (unless extended by a one-time extendable period of **90 days**). If insolvency cannot be resolved, the assets of the

borrower may be sold to repay creditors (known as **liquidation**).

- The resolution processes are conducted by licensed **insolvency professionals (IPs)**. These IPs are members of **insolvency professional agencies (IPAs)**.
- **Information utilities (IUs)** are established to collect, collate and disseminate financial information to facilitate insolvency resolution.
- The **National Company Law Tribunal** adjudicates insolvency resolution for companies and Limited Liability Partnerships. The **Debt Recovery Tribunal (DRT)** adjudicates insolvency resolution for individuals and partnership firms.
- The **Insolvency and Bankruptcy Board of India (IBBI)** regulates the functioning of IPs, IPAs and IUs.
- IBC was later amended with the provision to **bar promoters from bidding for their own companies**. It prevented defaulters from regaining control of their companies at a cheaper value
- The code was again amended in 2019 which mandated a deadline for the completion of the resolution process **within 330 days, including all litigation and judicial processes**.

## 8) Financial Stability and Development Council

#### About FSDC

- Financial Stability and Development Council (FSDC) is an apex-level body constituted in **2010** to strengthen and institutionalize the mechanism for maintaining financial stability.
- It is **not a statutory body**.
- It is chaired by the **Union Finance Minister of India**.
- Its members include the heads of financial sector regulators (RBI, SEBI, PFRDA, IRDA), Finance Secretary and/or Secretary, Department of Economic Affairs, Secretary,

Department of Financial Services, and Chief Economic Adviser.

- The Council **monitors macro prudential supervision of the economy**, including functioning of large financial conglomerates, and **addresses inter-regulatory coordination and financial sector development issues**.
- It also focuses on **financial literacy and financial inclusion**.
- **No funds are separately allocated** to the Council for undertaking its activities.

#### Why in News?

- Union Minister for Finance Nirmala Sitharaman recently chaired the 24th meeting of the Financial Stability and Development Council.
- The meeting deliberated on the various mandates of the FSDC, viz., Financial Stability, Financial Sector Development, Inter-regulatory Coordination, Financial Literacy, Financial Inclusion, and Macro prudential supervision of the economy including the functioning of large financial conglomerates etc.

### 9) Economy grows 20.1% in Q1

#### What's in the news?

- According to the data released by the **National Statistical Office**, the Indian economy **grew at a record pace of 20.1 per cent in April-June 2021 (Q1)** compared with the corresponding period last year, when a national lockdown due to the Covid-19 pandemic had nearly halted all economic activities. The GDP had **contracted 24.4 per cent in April-June 2020**.
- The first quarter's high growth rate, however, has come despite a brutal second wave of the pandemic which peaked in April-May.
- This is the **fastest quarterly growth** witnessed by India since such data

began to be released in the mid-1990s.

- The jump in GDP numbers is **mainly due to a weak base** last year and also a rebound in consumer spending during the quarter.

#### What is meant by 'low base effect'?

- One of the major reasons for this phenomenal jump in GDP is the low base effect. That means the **base year or month with which the figure is being compared**.
- For quarterly or annual GDP data, comparison is always made with the **same quarter last year or growth over last year's GDP**.
- The Q1 GDP growth of 20.1% per cent is, therefore, in comparison to that GDP data recorded in the same quarter last year.
- When the pandemic struck in 2020, the government imposed a strict nationwide lockdown to curb the spread of the virus. This had a massive impact on the Q1 GDP growth which slumped by a record 24.4 per cent to Rs 26.95 lakh crore as compared to Rs 35.7 lakh crore reported in Q1 of 2019-20.
- As for the period under consideration, the GDP figure stands at Rs 32.38 lakh crore, up 20.1 per cent from Rs 26.95 lakh crore reported in Q1 of 2020-21.

#### Other indicators

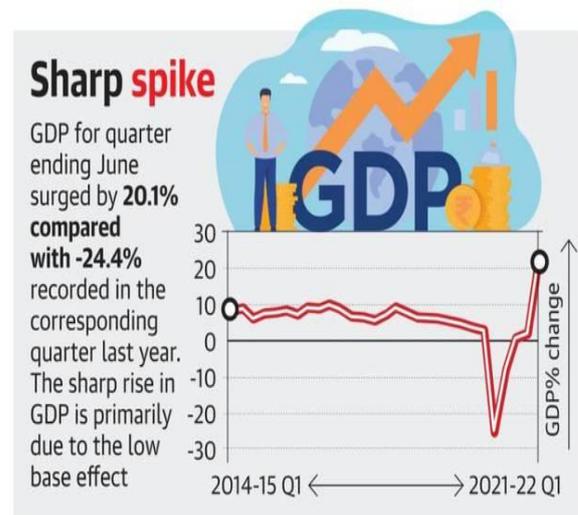
- Apart from the low base effect, there are other significant reasons too which suggest a recovery in the economy.
- The GDP data shows that **sectors including 'agriculture, forestry and fishing' and 'electricity, gas, water supply and other utility services' are above the levels of the pre-Covid year of 2019-20**.
- Many sectors like **retail, auto sales, farm output, construction and exports** have picked up since June.

#### Related Information

[National Statistical Office](#)

- The National Statistical Office (NSO) is the Statistics Wing of the **Ministry of Statistics and Programme Implementation**.
- In 2019, the central government merged the Central Statistical Organisation (CSO) and National Sample Survey Organisation (NSSO) into the National Statistical Organisation.
- NSO is mandated with the following responsibilities:-
  - acts as the nodal agency for planned development of the statistical system in the country
  - compiles and releases the **Index of Industrial Production (IIP)** every month and conducts the **Annual Survey of Industries (ASI)**;
  - organizes and conducts periodic **all-India Economic Censuses**
  - prepares national accounts as well as publishes annual estimates of national product, government and private consumption expenditure, capital formation, savings, etc.

as also the state level gross capital formation of supra-regional sectors and prepares comparable estimates of State Domestic Product (SDP) at current prices;



## International Relations

### 1) AUKUS

#### What's in the news?

- **Australia, the U.K. and the U.S. (AUKUS)** have announced they're forming a **new security alliance that will help equip Australia with nuclear-powered submarines.**
- The historic security alliance is aimed at **securing the Indo-Pacific and developing capabilities** that can contribute along with India and other countries to deter behaviour that threatens peace and security in the region.
- The partnership, seen as an **effort to counter China in the Indo-Pacific**, will allow the US and UK to provide Australia with the technology to develop nuclear-powered submarines for the first time.
- The development of Australia's nuclear-powered submarines would be a joint endeavour by the three nations, with a **focus on interoperability, commonality, and mutual benefit.** Australia said that strengthening its defence capabilities through nuclear-powered submarines will form part of the country's contribution to a secure and prosperous Indo-Pacific.
- The AUKUS partnership is also aimed at **facilitating sharing of various other critical technologies among the partner countries.** It said the three countries will promote deeper information and technology sharing and will significantly deepen cooperation on a range of security and defence capabilities.

#### Criticisms

- **France** criticised its exclusion from the alliance, saying it reflects a lack of coherence when common challenges are being faced in the Indo-Pacific region.
- In its reaction, **China** criticised the security alliance saying it will gravely

undermine regional stability and aggravate the arms race.

#### Will AUKUS be a game changer?

- Experts say that it is unlikely the new grouping will be a game changer.
  - First, **the U.S.**, as a leading global military power, **already has a strong presence in the Indo-Pacific**, especially in a grouping that includes Australia, India, and Japan — the **Quadrilateral Security Dialogue, or Quad.** This involves joint military presence, and a wide array of war games and more in the region.
  - Similarly, **the U.S., the U.K., Australia, Canada, and New Zealand** are **members of Five Eyes**, an intelligence-sharing alliance, which also has regional security implications.
  - Secondly, **AUKUS will not likely deter Beijing's strategic calculus across the region**, particularly relating to its maritime ambitions and territorial expansionism. The one element of AUKUS that has **potential to cause a recalibration of China's plans in this realm is the nuclear-powered submarines.**
  - The countries that have such submarines operational are the U.S. (68), Russia (29), China (12) the U.K. (11), France (8) and India (1). Given this balance, which **implies Chinese dominance across the Indo-Pacific**, the effect of AUKUS facilitating the development of a nuclear fleet for Australia may heighten Beijing's anxiety over its nuclear-powered submarine fleet leading to **arms race in the region.**
- #### Does India stand to gain from this development?
- Responding to the creation of AUKUS, India said that it is neither relevant to the Quad nor will it have any impact on its functioning.

- However, India may indeed derive **secondary benefits** from having three advanced nations with arguably the most sophisticated military know-how in the world coming together to **support a free and open Indo-Pacific**.
- Given the inroads that China has made in recent decades with its Belt and Road Initiative, including through projects or proposals for infrastructure development in Southeast Asia, Sri Lanka, the Maldives, and beyond into Central Asia, India's fears over **'encirclement' by China may be partially mitigated by AUKUS**.

## 2) Agreement on Agriculture

### Background

- India has been a **founding member of the World Trade Organization (WTO)** and is a signatory to the multilateral **Agreement on Agriculture (AoA)**, which, among other things, **regulates domestic subsidies granted by governments in the agricultural sector**.
- The implementation of the Agreement on Agriculture started with effect from **1.1.1995**.
- WTO members had first negotiated these commitments at the **Uruguay Round of negotiations** (1986 to 1993), and have since discussed issues arising from these commitments at subsequent ministerial conferences and committee meetings at the WTO.

### About AoA

- It aims to **curb trade distorting aid**, which, despite being granted domestically, adversely affects the competitiveness of the global market.
- Under this agreement, **subsidies are categorised into the following categories** on the basis of their trade distorting nature.
  - **Amber Box:** These subsidies have a potentially damaging effect on trade and distort the relevant

market. They need to be **gradually reduced** to ensure compliance with global norms. These supports are subject to limits: **"de minimis" minimal supports** are allowed (generally **5% of agricultural production for developed countries, 10% for developing countries**);

- **Green Box:** Agriculture-related subsidies that fit in WTO's green box are policies that are **not restricted** by the trade agreement because they are **not considered trade distorting**. To qualify for the green box, WTO says a subsidy must not distort trade, or at most cause minimal distortion.
- **Blue Box:** This is the **"amber box with conditions"** — conditions designed to reduce distortion. Any support that would normally be in the amber box, is placed in the blue box if the **support also requires farmers to limit production** by imposing production quotas. At present there are **no limits** on spending on blue box subsidies.

### What is the Peace Clause?

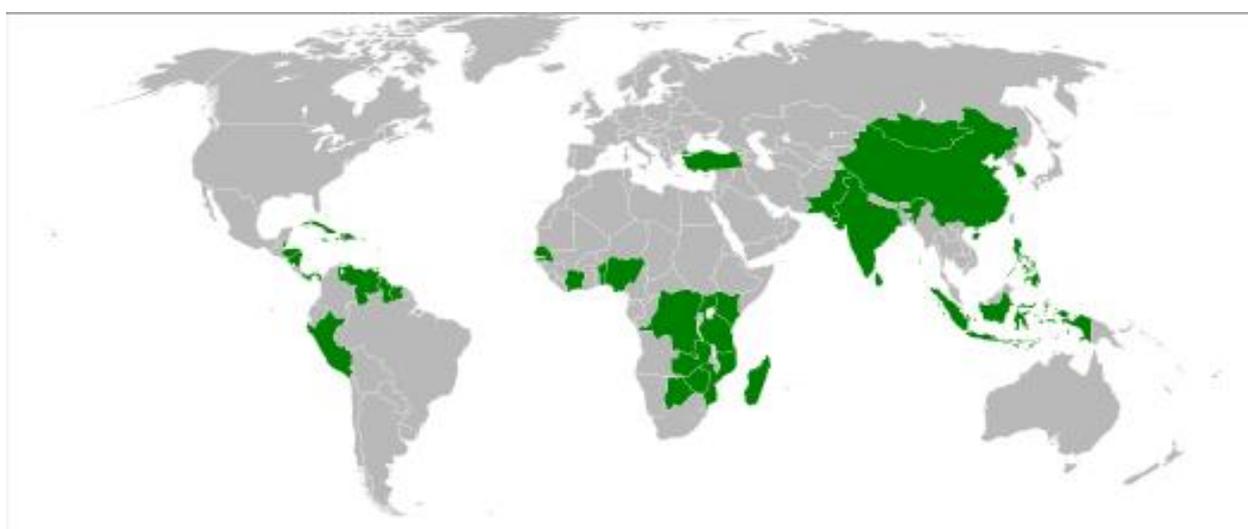
- The "Peace Clause" was accepted at the **Bali Ministerial meeting** of WTO in 2013, where WTO members agreed **temporarily to not challenge a developing country's domestic support programs that exceed their agreed-to limits**, if the support was in the form of stocks for food security purposes.
- There are other conditions that must be met, including that the programs must not distort trade.
- In 2020, **India invoked the Peace Clause** for exceeding the ceiling on support it can offer farmers for rice for the marketing year 2018-2019, **marking the first time any country has taken recourse to this safeguard**.

### India in WTO debates

- Food and livelihood security, particularly India's public stockholding programme and Minimum Support Price (MSP), have been hotly debated at the WTO between the developed and developing blocs. The US and Canada have been opponents of India's food security and domestic support programmes.
- India's **MSP** measure would fall in the **Amber Box category** and would thus have to be capped at **10 per cent of the total value of the concerned product** as required under the AoA. If India's domestic support exceeds the permissible limit, it would stand in violation of this agreement.
- India has, however, consistently defended its position on this issue and emphasised the need to prioritise the food and livelihood security of its population. A **joint proposal by China and India** at the WTO highlighted the vast difference in the value of subsidies granted by developed economies like the US, EU, and Canada, and those granted by developing economies.
- The genesis of the problem lies in the **skewed nature of the AoA**. Nearly all the rich countries' subsidies fall into the green box while those of developing nations are mostly in the amber box.
- For eg: The U.S. has shifted most of its farm subsidies (88 per cent) into the green box. This has enabled the world's largest trading nation to increase its farm subsidies from around \$61 billion in 1995 to \$139 billion in 2015.
- Developed countries have been subsidising its corporate agriculture to capture global markets while it targets the subsidies India gives to an overwhelmingly large share of small and marginal farmers.

### G33 countries

- The G33 is a **forum of developing countries** including India, Brazil, South Africa etc. formed during the **Cancun Ministerial Conference (2003)** of the WTO, to **protect the interest of the developing countries in agricultural trade negotiations**.
- It was created in order to help group countries which were all facing similar problems. The G33 has proposed special rules for developing countries at WTO negotiations, like allowing them to continue to restrict access to their agricultural markets.
- The group, despite its name, has **47 members currently**.
- Below Picture: G33 member countries.



### Why in News?

- Commerce and Industry Minister Piyush Goyal recently said that the Agreement on Agriculture at the WTO is riddled with deep imbalances, which favour the developed countries and have tilted the rules against many developing countries.
- The Minister said that historical asymmetries and imbalances must be corrected to ensure a rule-based, fair and equitable order.
- Mr. Goyal said this while addressing the G-33 Virtual Informal Ministerial Meeting. He said G-33 must strive for positive outcomes on a permanent solution to public stockholding for food security purposes, which was of utmost importance and a balanced outcome on domestic support.
- The meeting concluded with the adoption of the G-33 joint ministerial statement reaffirming commitment for expeditious resolution of the WTO's mandated issues in agriculture.

## 3) Intellectual Property Rights waiver

### About TRIPS

- The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the **World Trade Organization (WTO)**.
- The Agreement, which came into effect on **1 January 1995**, is a comprehensive multilateral agreement on intellectual property.
- The TRIPS Agreement is often described as **one of the three "pillars" of the WTO**, the other two being trade in goods and trade in services.
- To facilitate the implementation of the TRIPS Agreement, the Council for TRIPS concluded with the World Intellectual Property Organization (WIPO) an **agreement on**

**cooperation between WIPO and the WTO**, which came into force on 1 January 1996.

### Mandates

- As per the TRIPS provisions, the member countries are required to adopt TRIPS provisions in their domestic intellectual property legislations like Patent Act, Copyright Act etc. TRIPS agreement is an effort to bring national legislations under common international rules.
- The areas of intellectual property that TRIPS covers are: **copyright and related rights; trademarks; geographical indications; industrial designs; patents; the layout-designs of integrated circuits; and undisclosed information including trade secrets and test data.**
- In India, the government has made a major amendment to the 1970 Patent Act in 2005 to accommodate the TRIPS provisions. In 2010, the Copyright Act was amended and enforced from 2012. Other legislations with respect to Industrial designs also have been made.

### Why in News?

- India has pitched for an early outcome of the **TRIPS waiver proposal for COVID-19 vaccines**, therapeutics and diagnostics in the World Trade Organisation.
- In October 2020, India and South Africa had asked the WTO to waive certain conditions of the TRIPS Agreement that could impede timely access to affordable medical products to combat Covid-19.
- In May this year, a revised proposal was submitted by 62 co-sponsors, including India, South Africa, and Indonesia.
- The proposal, if passed by the WTO, could dramatically alter how pharmaceutical companies worldwide access proprietary trade know-how for the production of leading vaccines.

- However, questions remain regarding whether the easing of TRIPS rules for COVID-19 vaccines will lead to a greater supply of efficacious vaccines in countries where they are the most needed, or if less circuitous options to boost supply are more relevant in the present scenario.

#### What was the earlier proposal from India and South Africa?

- The countries had asked the TRIPS Council to recommend, as early as possible, a waiver on the implementation, application and enforcement of four sections in the second part of the agreement.
- These sections — 1, 4, 5, and 7 — pertain to **copyright and related rights, industrial designs, patents, and the protection of undisclosed information.**

#### What are patents and IP rights?

- A patent represents a powerful intellectual property right, and is an **exclusive monopoly** granted by a government to an inventor for a limited, pre-specified time. It provides an enforceable legal right to prevent others from copying the invention.

#### What is the argument in favour of relaxing TRIPS rules?

- The broader context for emergency action **aimed at rapidly increasing vaccine availability** across the world is the sharp surge in COVID-19 cases.

#### Besides patents, what are the other roadblocks to scaling up production?

- The International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) has pointed to other “real challenges” in scaling up production and distribution of Covid-

19 vaccines. These include **trade barriers, bottlenecks in supply chains, scarcity of raw materials and ingredients in the supply chain, and the unwillingness of rich countries to share doses with poorer nations.**

- Also, there may be **serious issues associated with manufacturing vaccines** if there is just an easing of the associated intellectual property rights rules but **no further support to generic pharmaceutical firms** in countries such as India and South Africa. This is because a “**tech transfer**” is also needed for the latter to actually commence production, especially for mRNA vaccines, including the ones produced by Moderna and Pfizer along with BioNTech.
- There is also a strong likelihood that it will take a **considerable amount of time**, even several years, for generic producers’ plants to become operational at optimal capacity.
- Finally, there is the classic counter-argument to calls for patent relaxations, that such policies could **discourage pharmaceutical companies from investing in producing next-generation vaccines.**

#### Way Forward

- Though many have argued that humanitarian need trumps the profit motive during a pandemic, the decision to waive all TRIPS rules should be preceded by a rigorous analysis of the effects such a policy would have on the biotechnology sector and global supply chains for its products.

## Art and Culture

### 1) Thamirabarani Civilization

#### What's in the news?

- A **carbon dating analysis** of rice with soil, found in a burial urn at **Sivakalai in Thoothukudi** district of Tamil Nadu, has yielded the date of 1155 BC, **indicating that the Thamirabarani civilization dates back to 3,200 years.**
  - Radiocarbon dating is a method that provides objective age estimates for carbon-based materials that originated from living organisms. An age could be estimated by **measuring the amount of carbon-14** present in the sample and comparing this against an internationally used reference standard. Carbon-14 is a **weakly radioactive isotope of Carbon**; also known as radiocarbon.
  - C-14 dating is **only applicable to organic and some inorganic materials** (not applicable to metals).

#### Significance



- The recent findings could lead to proof that a **city civilisation (Porunai River (Thamirabarani) civilization) existed in south India as early as 3,200 years ago, during the Indus Valley Civilisation.**
- Historians say that the graffiti found in the Indus Valley civilization and that encountered in south India are about **80% identical**. This suggests that there may be some linguistic connection between Indus Valley Civilization, south India and Sri Lanka.
- **Thamirabarani**, which was once called the **Porunai**, is one of the shortest rivers in TamilNadu, originating in the **Pothigai hills** of the Western Ghats and empties into the **Gulf of Mannar at Korkai (Bay of Bengal).**

#### Other significant excavations conducted recently

- A **silver punch-marked coin** with symbols of the sun, moon, taurine, and other geometrical designs was recently discovered at **Keezhadi in Sivagangai district, Tamil Nadu**. According to research, the currency dates from the **4th century BC**, which is before the reign of the Maurya empire (321-185 B.C.E).
- The **Keezhadi culture**, according to carbon dating of relics, dates from the **6th century BC**.
- Archaeological excavations are taking place in Tamil Nadu at areas including **Kodumanal, Keeladi, Korkai, and Sivakalai.**

# Defence

## 1) Exercise SIMBEX

### About SIMBEX

- SIMBEX is the **Maritime Bilateral Exercise between Singapore and India**.
- Initiated in **1994**, SIMBEX is the **Indian Navy's longest uninterrupted bilateral maritime exercise with any foreign navy**.

### Why in News?

- The three-day long 28th edition of Singapore-India Maritime Bilateral Exercise SIMBEX concluded recently.
- The success of SIMBEX-2021 is yet another demonstration of the mutual resolve on both sides to strengthen the bilateral partnership further in the years ahead.

## 2) Nag Anti-Tank Guided Missile (ATGM)

### NAG Missile

- Nag is a third-generation, fire-and-forget, anti-tank guided missile developed by India's state-owned **Defence Research and Development Organisation (DRDO)**.
- The Nag missile has been **indigenously developed** under the Indian Ministry of Defence's **Integrated Guided Missile Development Programme (IGMDP)**, which also involved the development of four other missiles that are **Agni, Akash, Trishul and Prithvi**.
- It is designed to **destroy modern main battle tanks and other heavily armoured targets** and has the capability to engage both static and moving targets.
- It can engage targets under all weather conditions with day and night capabilities and with a **minimum range of 500m and maximum range of 20 km**.
- Nag can be launched from land and air-based platforms.

- It uses an imaging infrared seeker in lock-on-before-launch mode.

### Why in News?

- The indigenously developed helicopter launched Nag Anti-Tank Guided Missile, HELINA (Helicopter based NAG), has completed all trials and the process.

## 3) Dissolution of Ordnance Factory Board

### Ordnance Factory Board

- Ordnance Factory Board (OFB) is an **umbrella body for the ordnance factories and related institutions**, and is currently a subordinate office of the **Ministry of Defence (MoD)**.
- **Weapon, ammunition and supplies** for armed forces, paramilitary and police forces come from the OFB-run factories.
- OFB focuses on production of civilian and military-grade arms and ammunition, explosives, propellants and chemicals for missile systems, military vehicles, armoured vehicles, optical devices, parachutes, support equipment, troop clothing and general store items.
- OFB is the **oldest and one of the largest departmentally-run commercial organisations** of the government of India.
- It is known as India's "**Fourth Arm of Defense**" and "**Force Behind the Armed Forces**."

### Timeline

- The **Board of Ordnance** was established in **Fort William, Kolkata**, in 1775. This marks the **official beginning of the Army Ordnance in India**.
- In 1801, the first Industrial establishment of Ordnance Factories was established in Kolkata.
- In 1979, the **Ordnance Factory Board** was constituted.

### Why in News?

- The Ministry of Defence has issued an order for the **dissolution of the Ordnance Factory Board** with effect from October 2021. The assets, employees and management of OFB's 41 ordnance factories would be **transferred to seven newly constituted Defence Public Sector Undertakings (DPSUs)**.

### Why was it necessary?

- The restructuring of the OFB into corporate entities was recommended in one or the other form by at least three expert committees on defence reforms set up in the last two decades — the **TKS Nair Committee (2000)**, **Vijay Kelkar Committee (2005)**, and **Vice Admiral Raman Puri Committee (2015)**.
- A fourth committee chaired by **Lt Gen D B Shekatkar** did not suggest corporatisation, but recommended regular audits of all ordnance units considering past performance.
- The central argument has been that corporatisation, which will bring these entities **under the purview of The Companies Act**, would lead to **improvements in efficiency, make products cost-competitive, and enhance their quality**.
- It has been argued that **OFB's monopoly has led to innovation drying up**, apart from low productivity, high costs of production, and lack of flexibility at the higher managerial levels.
- **Functioning directly under the Ministry of Defence**, the OFB and its factories **could not retain profits**, and thus had **no incentive to work towards increasing them**.

### Seven successor DPSUs

- The government has said that the OFB will be split into seven PSUs: Munitions India Ltd, Armoured Vehicles Nigam Ltd, Advanced Weapons and Equipment India Ltd, Troop Comforts

Ltd, Yantra India Ltd, India Optel Ltd, and Gliders India Ltd.

- Each of these PSUs will **run clusters of ordnance factories** involved in manufacturing similar categories of products.