

UPSC COACHING THAT GIVES YOU UNIVERSITY DEGREE



# TATHASTU

Institute of Civil Services



CURRENT AFFAIRS October Month 2022

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# Editorials of the Month

## Life and Death

**News:** The Supreme court has referred to a larger bench issues relating to **procedural norms** for imposing the death sentence on a convict. The intervention is seen as a major step in plugging the gaps in the way in which **trial courts** award the death sentence.

### What was acknowledged by the court?

- The SC stated that, “current practice places the convict at a hopeless disadvantage, tilting the scales heavily against him.”
- There were conflicting judgements on when and how the hearing on the sentencing should take place, and referred the issue to a five-judge Constitution bench.
- There was difference of opinion and approach amongst various judgements, on the question of whether, after recording conviction for a capital offence, under law, the court is obligated to conduct a separate hearing on the issue of sentence.

### What is the difference of opinion that court referred to?

- In **Bachan Singh vs State of Punjab**, the SC upheld the constitutionality of capital punishment on the condition that the punishment will be awarded on the “**rarest of rare**” cases. The ruling also stressed that a **separate sentencing** hearing would be held, where a judge would be persuaded on **why a death sentence need not be awarded**.
- The position was reiterated in several subsequent rulings of the court, including in *Mithu vs State of Punjab* 1982.
- However, the courts have given conflicting rulings on **when that separate hearing** is supposed to take place.

### What are arguments supporting Death penalty?

- **Deterrence** – It is the most commonly expressed rationale for the death penalty. The proponents of death penalty justify it for the greater utility of the society as it has a brutalization effect, thereby creating significant deterrence.
- **Principle of Proportionality** – Justice according to many is best served the punishment awarded is proportional to the seriousness of the offence.
- **Retributive Justice** – As quoted by John Locke, “if someone violates another’s right to life, they forfeit their own right to life.”
- **Procedure established by Law** – As much as Article 21 ensures Fundamental right to life and liberty for all persons, it also adds no person shall be deprived of his life or personal liberty except according to procedure established by law. It means if there is a procedure which is fair and valid, then the state by framing a law can deprive a person of his life.
- **Conforms to Will of people** – A survey in 2012 found that nearly 70% of Indians believed it is necessary to continue with capital punishment.
- The **constitution** of India and our nations democratic principles **rely on the state** to provide safety, security and enforcement of the faith of the public in the legal system.

### What are the ethical issues with Death penalty?

- There is **no statistical proof** of Death penalty as biggest deterrent or more effective deterrent than less severe punishment such as life imprisonment.
- Capital punishment **does not rehabilitate prisoner’s**, which is the very purpose of punishment.

- There is no moral or constitutional value of Retribution in a civilized society as death penalty represents **an eye for an eye** which basically **refers to vengeance rather than retribution**.
- It is against **human dignity** and **violative of the inalienable right to life**, even of those who are on the other side of the law.
- A **structural discrimination** is observed in India against those from a certain caste, class, and religion. In a 2016 study analyzing profiles of **385 death row** prisoners, **Project 39A**, a criminal reforms advocacy group, found that **76 percent of such prisoners** belonged to **scheduled castes and scheduled tribes, other backward classes or religious minorities**. (Keep a note of such data)
- Another 2020 study by Project 39A highlighted that 72 percent of all cases in which Delhi trial courts awarded the death penalty from 2000 to 2015 cited **“collective conscience of the society”** as an influencing factor.

#### What about role played by the SC recently?

- The Supreme court in its reference stressed that a trial court must take into account ‘the social milieu, the age, educational levels, whether the convict had faced trauma earlier in life, family circumstances, and other relevant factors at the time of considering whether the death penalty ought to be imposed upon the accused.

#### What should be the way forward?

- The state must work on progressive development of human rights to ensure human dignity and to serve the cause of fair justice by resolving the issues of laws, ailing criminal justice system.
- State must ensure that mercy petition act as final bulwark against the miscarriage of justice with time bound action.
- To bring consistency in practice and, thus, ensure that those facing capital punishment get a hearing that’s fair, humane – and just. For, **it’s about life and death**.

## Live Streaming of Supreme court proceedings

**News:** By going virtual, the Indian Supreme Court has done, in letter and spirit, what the former Master of the Rolls of the Court of Appeals Lord Denning had said many decades ago: “If we never do anything which has not been done before, we shall never get anywhere. The law will stand still while the rest of the world goes on, and that will be bad for both.”

**The recent decision will go down in annals of Indian legal and constitutional history as one of the most important and influential decisions for the following reasons:**

- Enabling the ordinary people of the country to view, without any barrier, the workings of the highest court of the land will go a long way in instilling faith in the judiciary as well as fostering a critical dialogue with judicial functionaries.
- Transparency and accessibility of the process of justice delivery will strengthen the country’s democracy.
- It will develop an informed citizenry.
- It will enable people to understand the importance of rule of law.
- It will promote transparency in judicial decision-making. By making its proceedings transparent, the SC has shown a deep sense of conviction. It speaks of honesty, integrity and rectitude of the institution.
- The decision could raise the quality and standards of the legal profession. Lawyers will be better prepared to appear before the court and they will be mindful of not making irresponsible remarks.
- Watching court-room proceedings, actual arguments by lawyers and searching questions by judges could inspire law students to take up this relatively neglected field.

#### Way Forward:

- Technology is a great instrument for forging solidarity and overcoming the obstacles of distance. Live-streaming of court proceedings will hopefully perform this task and translate the terms of legal justice into public and everyday discourse.



# Debate over Collegium system

## What is the Collegium system?

- It is the way by which judges of Supreme court and High courts are appointed and transferred. The system evolved through 3 significant verdicts of the Supreme Court, known as the First, Second, and Third Judges cases.
- The Constitution of India **does not mention** the collegium system; however, these 3 cases established that the collegium headed by the **CJI will have primacy** in the appointment of judges to the higher judiciary.
- The Supreme Court Collegium is a five-member body, which is headed by the incumbent Chief Justice of India (CJI) and comprises the four other senior most judges of the court at that time.
- A High Court collegium is led by the incumbent Chief Justice and two other senior most judges of that court.

## What are the Judges cases?

- **First Judges Case (1981)**
  - In '**SP Gupta Vs Union of India**', 1981, the Supreme Court by a majority judgement held that the concept of primacy of the Chief Justice of India was not really rooted in the Constitution.
  - The Constitution Bench also held that the term "consultation" used in Articles 124 and 217 did not mean "concurrence".
  - It means although the President will consult these functionaries for appointment, his decision was not bound to be in concurrence with all of them.
- **Second Judges Case (1993)**
  - A 9 judge bench examined the correctness of the 1981 verdict, and reversed it.
  - The ruling held that the word "**consultation**" **actually meant "concurrence"** of the CJI. It also said that the CJI would make decisions along with **2 senior-most judges** of the court, who would form the collegium.
- **Third Judges Case (1998)**
  - In 1998, a reference was made by then **President K R Narayanan** seeking the SC's opinion in its advisory jurisdiction on whether the primacy given to the CJI on appointments was legally sound.
  - The **SC reiterated its decision of 1993**, but brought **more senior Judges** to the collegium, **increasing** its strength from **3 to 5 judges**.

## What are the issues in functioning of the Collegium system?

- **No Specific criteria** – There is no criteria based upon which the collegium tests the candidate who is likely to assume the top post of judiciary. This leads to wide scope for favoritism and nepotism.
- **Lack of Transparency** – In appointments made as meetings to select or transfer judges are held behind closed doors. There are also no official minutes of collegium proceedings.
- **Excludes executive and no accountability** - The complete exclusion of the executive from the judicial appointment process created a system where a few judges appoint the rest in complete secrecy. They are not accountable to any administrative body that may lead to the wrong choice of the candidate while overlooking the right candidate.
- **Non-Inclusion of outer consultations** - There is no seat in the collegium for any non-judge - neither from the executive, the Bar or anywhere else. In other words, there is no one to offer suggestions or raise questions.
- The system **overlooks several talented** junior judges and advocates.

## What should be the way forward?

- Appointments procedure as mentioned under Article 124 of the constitution via appointing from the category of distinguished jurists should be considered.
- There is a need to maintain and promote Gender Diversity in Higher Judiciary with a fixed percentage of its members as women judges that will lead to the evolution of a gender-neutral judicial system of India.
- There is a need to strike balance between judicial independence and judicial accountability. There must be clarity based on the manner in which appointments of judges are made by the collegium. The executive should have a say in appointment process but at the same time it should not result in compromising independence of judiciary.

- The National Judicial Appointment Commission (NJAC) Act must be reconsidered by ensuring to include safeguards that would make it constitutionally valid as well reorganized to ensure that majority control remains with judiciary.

## Does India need a population policy?

**News:** Earlier this year, the United Nations published data to show that India would surpass China as the world's most populous country by 2023.

- According to the 2018-19 Economic Survey, India's demographic dividend will peak around 2041, when the share of the working age population is expected to hit 59%.
- In this context, does India need a population policy?

### National Population Policy, 2000

- It is India's current population policy.
- The NPP states its immediate objective as addressing the unmet needs for contraception, healthcare infrastructure, health personnel, and providing integrated service delivery for basic reproductive and child healthcare.
- The medium-term objective of the NPP 2000 was to reduce the Total Fertility Rate (TFR) to replacement levels by 2010. The TFR was to be **2.1 children per woman**.
- The long-term objective is **to achieve a stable population by 2045**.

**What do we infer from recent data which states World's population is expected to hit a peak and then drop by the end of the century? How does India be prepared for the same?**

- As a nation we must shift our focus from family planning approach to a family welfare approach. We should be focusing on empowering men and women in being able to make informed choices about their fertility, health and well-being.
- Rather than worrying about implications of the cost of ageing population causing an economic slowdown we must plan for the well-being of our population.
- We must discuss whether our people will be healthy, skilled and productive.
- Skills are important, but so is economic planning that ensures good jobs, agricultural productivity etc.
- China tried to make sharp changes to its policy to contain its rapid population explosion. They, however faced severe consequences in terms of ageing population, declining fertility and so on. Therefore, we should not focus on fertility rate, but on creating a situation in which slow changes in the family size take place in the context of a growing economy.

**Can increasing automation effectively counteract the negative economic effects of an ageing population?**

- Automation makes a big difference to the productivity of individuals, sometimes to the detriment of employment. However, it doesn't replace human nature and human touch.
- Automation doesn't help you take your mother to a doctor or provide the emotional warmth and security that family members provide to each other.
- We need to figure out how to address ageing in the context of changing families and the nature of state support in India and create conditions in which the elderly population can have a healthy and happy life.

**Does India possess the institutional capability to tap into its huge youth population? Or will an ageing population turn out to be a liability in the absence of adequate institutional or state capacity?**

- India certainly has the capacity to invest in its youth population. But we don't recognize the gender dimension of some of these challenges. Fertility decline has tremendous gender implications.
- What it means is that women have lower burden on them. But it also has a flip side. Ageing is also a gender issue as two-thirds of the elderly are women, because women tend to live longer than men do. Unless we recognize the gender dimension, it will be very difficult for us to tap into these changes.
- India has done a good job of ensuring educational opportunities to girls. Next, we need to improve employment opportunities for young women and increase the female employment rate. Elderly women need economic and social support networks.

**India's total fertility rate has dropped below the replacement rate of 2.1 births per woman. What could be the economic implications of this declining fertility rate?**

- As we look ahead, **addressing the unmet needs** of the young people should become a priority. We cannot allow the huge advances we have made in accelerating education, delaying child marriage, addressing sexual and reproductive health needs and building agency be wasted. Special attention must be given to **addressing ways in which the pandemic may have affected the lives of our adolescent and youth**.
- India's fertility fell below 2.1 births for certain states 10 years ago. In four other states, it's just declining. So, not only is fertility falling, the proportion of population that will be living in various states is also changing.
- The future of India lies in the youth living in Bihar, UP, MP. If adequate support is not given to these states in context of education, healthcare, job opportunities, skilling, then they will become an economic liability.

### Do we need a population policy?

- India has a very good population policy and states also have their population policies. We just **need to tweak these** and **add ageing to our population policy focus**. But otherwise, the national population policy is the right policy. We keep talking about population as the biggest problem in India, **but nobody talks about the poor investments in family planning**.
- What we need is a policy that **supports reproductive health** for individuals.
- Although we use the term population policy, **population control** still remains a part of our dialogue. We need to maybe call it a **policy that enhances population** as resources for India's development, and change the mindset to focus on ensuring that the **population is a happy, healthy, productive**.

## The Potential of Organic Fertilizer Industry

**News:** A very informative article on above mentioned topic was covered in Down To Earth magazine.

### Background:

- The central government has announced schemes worth crores for various sectors. Similar steps need to be undertaken for the organic fertilizer industry, as India has the potential to become the hub of organic fertilizer production in the world.

### What are Organic Fertilizers?

- According to **government rules**, it can be classified into two categories – **Bio-Fertilizer** and **Organic Manure**.
- Bio-fertilizers are composed of **living microorganisms** attached to solid or liquid carriers and are useful for cultivable land, as these micro-organisms help in increasing the productivity of soil and / or crops.
- Organic manure, on the other hand, refers to **partially decomposed organic matter** like digestate from a biogas plant, compost and vermi-compost, which provides nutrients to the soil / crops and improves yield.

### How can we ensure potential of organic fertilizers is put to good use in India?

- **Proper utilization of Municipal Solid Waste is the Key**
  - India produces more than 150,000 tonnes of municipal solid waste (MSW), based on estimated MSW generation data from the National Solid Waste Association of India and the Central Pollution Control Board.
  - Considering collection efficiency of 80 per cent and organic part of MSW to be 50 per cent, total organic waste generated per day in India comes to around 65,000 tonnes per day.
  - Even if **half of this is diverted to the biogas industry**, the government can leverage this **by reduction in import of fossils and fertilizers**.
- **Potential of Biogas and Digestate**
  - Biogas can be utilised for heating, electricity and even vehicular purposes (after upgrading).
  - Digestate (biogas plants effluent) can provide organic carbon to the continuously depleting soil, apart from its standard nutrition value.
- **Increased penetration of Organic fertilizers**
  - The proportion of organic fertilizers of the overall fertilizer consumption was only 0.29 per cent for 2018-19 and 0.34 per cent for 2019-20. With promotion of biogas production, the government can reap the benefits of its bi-product — fertiliser.
- **Government initiative through SATAT scheme**
  - The Centre has shown the intent of promoting the industry through its SATAT scheme.



- Sustainable Alternative Towards Affordable Transportation (SATAT) is an initiative aimed at setting up of Compressed Bio-Gas production plants and make it available in the market for use in automotive fuels by inviting Expression of Interest from potential entrepreneurs.
- It has no doubt allocated 468 crores towards Central Financial Assistance in the earlier budget. But the industry needs much more support to save the future governments billions of dollars, because if all the projects applied under SATAT scheme materialize, it will **help the country save \$16 billion year-on-year**.

#### Way Forward:

- The popularity of organic farming has grown in the domestic market in recent years.
- The significant rise of this sector is linked to growing awareness about the harmful effects of synthetic fertilizer on soil, rising health concerns, expanding urban population base and an increased consumer expenditure on food goods.
- Because organic manure can be improved with the use of bio fertilizers to meet nutrient requirements, both bio fertilizers and organic manure have the potential to eliminate the usage of synthetic fertilizers completely.

## PM SHRI Schools

**News:** The Modi government has set the ball rolling to select 'model schools' under the ambitious PM Schools for Rising India (PM-SHRI) scheme with the Ministry of Education set to declare the first list by the end of the year.

#### Background:

- The scheme will bring **existing government schools** under its fold, revamp the infrastructure and curriculum **to follow the New Education Policy (NEP) in its entirety** and rename them by adding the PM-SHRI prefix to distinguish them from other institutions.
- Different from the government-run Kendriya and Navodaya Vidyalayas, these schools will operate in partnership with the state governments. The central government will contribute 60 per cent of the funds and the rest will be borne by the state, except in the Northeast where the ratio will be 90:10.

#### How will the schools be selected?

- Government schools will have to apply for selection under the scheme, which will be done on the basis of their existing infrastructure, including building, functional toilets, ramp, ITC (Information Technology and Communication) facilities, student-teacher ratio and quality of education among others. Applications will have to be submitted on a portal which will be opened by the end of October.
- The central government has already shortlisted nearly 2.5 lakh government schools, who would be able to apply for the PM-SHRI tag.
- The schools will be assessed on the basis of 125 standards under **six broad parameters** of 'curriculum, pedagogy and assessment', 'access and infrastructure', 'Human resources – leadership', 'inclusive practices and gender equity', 'management, monitoring and governance' and 'beneficiary satisfaction'.

#### Need of PM Shri Schools:

- Post the pandemic, entire schooling system is in disarray.
- Teachers seem to be caught in time warp and the anxieties of children are increasing because of the switch to online classes during the pandemic and then back to regular schooling.
- Both school managements and parents are finding it difficult to address the visible learning gaps.

#### How will the new schools work?

- **Every region** will have PM Shri schools that will **handhold and mentor other schools** in their vicinity. Wide range of learning experiences, good physical infrastructure and appropriate resources will be available to students.
- Varieties of pedagogy, assessment systems will be used along with the introduction of vocational education.
- **Linkages with skill counsellors and local industry** will be established to provide employment opportunities to students graduating from these institutions.
- Schools will be **energy efficient** with natural farming patches, equipped with rainwater harvesting systems.
- The **community and alumni** will be involved in activities such as career guidance and mentoring.

- It also envisions the **role of parents** who will become **home mentors**.
- The schools will become **Community centres** after regular hours and converge the existing schemes including PM Poshan, Samagra Shiksha, Ayushman Bharat.

#### Way Forward:

- If these ideal schools accomplish even quarter of their goals, they will make a significant difference to the educational landscape of the country.
- However, the journey will be challenging as years of investment deficits in high-quality teachers, training and resource materials have led to cycles of poor learning.
- For the PM Shri schools to succeed a teacher training programme must be in place to train the educators in the pedagogical practices proposed by the NEP.

## World Food Day – Leave No One Behind

**News:** World Food Day is celebrated to commemorate the establishment of the United Nations Food and Agriculture Organisation (FAO) on 16th October 1945.

#### About World Food Day 2022:

- Observed annually to address the problem of hunger. It emphasizes on SDG-2 “Zero Hunger”
- **Theme – Leave no One Behind**

#### Status of Global Hunger:

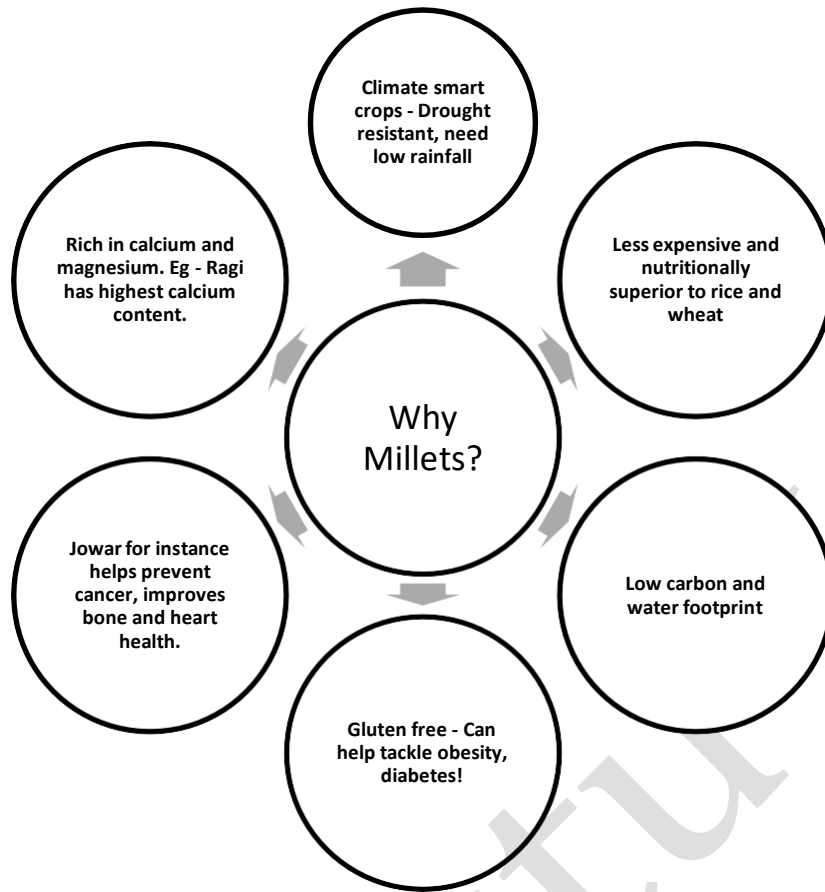
- According to **The Hunger Hotspots Outlook (2022-23)** - Report by the FAO and WFP. Over **205 million people** across 45 countries will **need emergency food assistance** to survive.
- Globally, food and nutrition security was impacted by COVID-19 pandemic, Climate change, Spiraling food inflation, Conflict among nations and rising Inequality.

#### What are the steps taken by India to address hunger issue?

- Pradhan Mantri Krishi Sinchayee Yojana which focuses on more crops per drop for improved water use.
- Paramparagat Krishi Vikas Yojana was started that promotes organic farming.
- Eat Right India and Fit India Movement along with Swachh Bharat Abhiyan, Jal Jeevan Mission and other efforts that cater to overall health of the people.
- Increased ambit and effective implementation of the Food Security Act, 2013.
- Free ration to needy families under the Pradhan Mantri Garib Kalyan Yojana.
- Promoting Farmer producer organizations, making efforts to make India trans-fat free, promoting use and awareness of Millets. FAO also supported India's proposal to declare 2023 as the International Year of Millets.

#### What is the need of the hour?

- The primary goal should be working on SDG-2 i.e. Zero Hunger by 2030. It can be achieved through collective action to transform agri-food systems by providing better nutrition, better environment and by embracing sustainable agriculture practices.
- Promoting production and consumption of nutritious native foods such as millets, firstly by educating about its importance to the society per say and encouraging farmers to grow such crops.
- India can lead the global discourse on food and nutrition security by showcasing home-grown solutions and best practices, and championing the principle of leaving no one behind.
- The degradation of soil by the excessive use of chemicals, non-judicious water use, and declining nutritional value of food products need urgent attention. Every other effort will go in vain if we do not protect our soil and land.



TathastuICS

# General Studies – 1

## **Indian Heritage and Culture**

1. Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

## **History**

2. Modern Indian history from about the middle of the eighteenth century until the present significant events, Personalities, Issues.
3. The Freedom Struggle — Its various stages and Important contributors / contributions from different parts of the country.
4. Post-independence consolidation and reorganization within the country.
5. History of the world will include events from 18th century such as Industrial revolution, World wars, Redrawing of national boundaries, Colonization, decolonization, Political philosophies like communism, capitalism, socialism etc.— their forms and effect on the society

## **Society**

6. Salient features of Indian Society, Diversity of India.
7. Role of women and women's organization, Population and associated issues, Poverty and developmental issues, Urbanization, their problems and their remedies.
8. Effects of globalization on Indian society.
9. Social empowerment, Communalism, regionalism & secularism.

## **Geography**

10. Salient features of world's physical geography.
11. Distribution of key natural resources across the world (including South Asia and the Indian sub-continent) Factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).
12. Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., Geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes

# History & Culture

## Mahakaleshwar Corridor

**News:** The first phase of the Mahakaleshwar Corridor, which cost Rs 350 crore, is complete now and all set for inauguration.

### About:

- Mahakal Maharaj Mandir Parisar Vistar Yojna is a plan for the expansion, beautification, and decongestion of the Mahakaleshwar temple and its adjoining area in Ujjain district.
- The project is expected to increase annual footfall in the city from the current 1.50 crore to nearly three crore.

### Details about Phase 1:

- One of crucial aspect of phase I is the visitor plaza which houses 2 entrances. The Nandi Dwaar and Pinaki Dwaar. The visitor plaza can hold up to 20,000 pilgrims at a time.
- A circulation plan to reduce congestion has also been developed, keeping in mind the entry of visitors into the city and their movement up to the temple.
- A 900-metre pedestrian corridor has been constructed, connecting the plaza to the Mahakal temple, dotted with 108 murals and 93 statues depicting stories related to Lord Shiva, such as Shiv Vivah, TripurasurVadh, Shiv Puran, and Shiv TandavSwaroop.



### Details about Phase 2:

- Phase II involves development of adjoining places such as Maharajwada, Mahal Gate, Hari Phatak Bridge, Ramghat façade, and BegamBagh Road.
- The second phase is being developed with funding from AgenceFrancaise de Development (AFD) under the **City Investments to Innovate Integrate and Sustainable (CITIIS)** programme.

### Mahakaleshwar Temple:

- As per Hindu mythology, the temple was constructed by Lord Brahma and is presently located alongside the holy river Kshipra.
- Mahakaleshwar Jyotirlinga in Ujjain is one of the 12 Jyotirlingas considered the most sacred abodes of Shiva.
- The temple's Mahakal Lingam is believed to be **Swayambhu** (self-manifested) and **unlike** any other jyotirlingas in the country, the idol of Mahakaleshwar **faces south**.
- The shrine is revered as one the 18 MahaShakti Peeth in India.
- The temple in its present form was built by the Maratha general **Ranoji Shinde** in 1734 CE.

## Buddhist Caves and Temples found in MP

**News:** The Archaeological Survey of India (ASI) discovered Buddhist caves, stupas and temples at Bandhavgarh Tiger Reserve in Madhya Pradesh.

### Key Findings:

- **26 Buddhist Caves** were discovered dating back to the 2nd and 5th centuries, pertaining to the **Mahayana sect** of Buddhism. The caves and some of their remains had 'Chaitya' (rounded) doors and stone beds typical of Mahayana Buddhism sites.



- **24 inscriptions in Brahmi** text were, all dating back to the 2nd-5th centuries. The inscriptions mention sites such as Mathura and Kaushambi, and Pavata, Vejabharada and Sapatanaairikaa. The kings they mention include Bhimsena, Pothasiri and Bhattadeva.
- Also part of the findings is **26 ancient temples** and remains from the **Kalachuri period**.
- Some other findings include board games, a monolith depicting 10 avatars of Vishnu, 2 Shaiva math belonging to Kalachuri Period and a votive stupa.

#### About Bandhavgarh Tiger reserve:

- Found in Umaria district of MP, it was initially a National park (1968) and then became Tiger Reserve (1993).
- Its mention can be found in the ancient books of the '**Narad Pancharatra**' and the '**Shiv Purana**' that this place is being **associated with Ramayana**.
- The park derives its name from the most prominent hillock of the area, which was said to be given by Lord Rama to his brother Lakshmana to keep a watch on Lanka. Hence the name Bandhavgarh (Sanskrit: Brother's Fort).
- The Bandhavgarh Fort is a great masterpiece of "Treta Yuga" (one of the ages of mankind in Hinduism).
- It was ruled by major dynasties including **Sengars, the Kalchuris, and the Baghels** (believed to rule the regions for the longer period).
- The whole park is filled with more than 20 streams out of which some of the most important streams are Johilla, Janadh, Charanganga, Damnar, Banbei, Ambanala and Andhiyari Jhiria. These streams then merge into the Son river.
- Species Found include Asiatic Jackal, Bengal Fox, Sloth Bear, Striped Hyena, Leopard and Tiger, Wild Pigs, Nilgai, Chinkara and Gaur.

#### About ASI:

- The Archaeological Survey of India (ASI), under the **Ministry of Culture**, is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- Besides it regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also regulates Antiquities and Art Treasure Act, 1972.

## 50 Iconic Textiles

**News:** UNESCO on Thursday released a list of 50 exclusive and iconic heritage textile crafts of the country.

#### Background:

- **Handmade for the 21st Century: Safeguarding Traditional Indian Textile** lists the histories and legends behind the textiles, describes the complicated and secret processes behind their making, mentions the causes for their dwindling popularity, and provides strategies for their preservation.
- According to UNESCO, one of the major challenges to the safeguarding of Intangible Cultural Heritage in the South Asia is lack of proper inventory and documentation.
- The publication, which aims to bridge this gap, brings together years of research on the 50 selected textiles.

Textile	State/Region
Kunbi weaves	Goa
Mashru Weaves and Patola	Gujarat
Ilkal, Lambadi or Banjara	Karnataka
Himroo	Maharashtra
Garad-Koiral	West Bengal
Toda embroidery and Sungadi	Tamil Nadu
Khes	Panipat

<b>Chamba Rumals</b>	Himachal Pradesh
<b>Thigma or wool tie and dye</b>	Ladakh
<b>Awadh Jamdani</b>	Varanasi
<b>Sikalnayakanpet Kalamkari</b>	Thanjavur
<b>Bandha tie and dye weaving</b>	Odisha

**Note - Try to remember the names. There are chances that questions can be asked in Prelims from list of Textiles as mentioned above.**

## Swadesh Darshan 2.0

**News:** The Government is going to launch the 'Swadesh Darshan 2' Scheme with the sites being selected from 15 States across the country.

- The policy shifts away from the earlier theme-based tourist circuits to reviving destination tourism.

### About Swadesh Darshan 1.0:

- The Swadesh Darshan Scheme was launched by the Centre in 2014-15 for the integrated development of theme-based tourist circuits.
- Under the scheme, the **Ministry of Tourism** provides financial assistance to State governments, Union Territory Administrations, or Central Agencies for the development of tourism infrastructure in the country.
- Some of the prominent circuits launched under this were the Buddhist tourist circle, Ambedkar Tourist Circle, Krishna Circuit, Coastal Circuit, Wildlife and Tribal circuit and the North-East Tourist Circle etc.
- It is 100% centrally funded and efforts are made to achieve convergence with other schemes of Central and State Governments and also to leverage the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and Corporate Sector.

### About Swadesh Darshan 2.0:

- The Scheme is based on sites that have potential as tourist places and are to be launched in a phased manner. The first phase of the scheme is going to start in January 2023.
- With the mantra of 'vocal for local', the revamped scheme namely Swadesh Darshan 2.0 seeks to attain "Aatmanirbhar Bharat" by realizing India's full potential as a tourism destination.
- Fifteen States are part of the first phase which includes Madhya Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh, and Maharashtra. Two destinations from each State have been identified by the Ministry of Tourism.
- Some of the prominent places identified are Jhansi and Prayagraj in Uttar Pradesh, Gwalior, Chitrakoot and Khajuraho in Madhya Pradesh and Ajanta and Ellora in Maharashtra.

### Need:

- The revamped scheme seeks to enhance the contribution of tourism to **local economies**.
- It aims to create jobs including **self-employment** for local communities, to enhance the skills of local youth in tourism and hospitality, to **increase private sector investment** in tourism and hospitality and to **preserve and enhance local cultural** and natural resources.
- According to the third Tourism Satellite Account for 2017-18, 2018-19, and 2019-20, the contribution of tourism to the employment of the country is 14.78%, 14.87 % and 15.34 % respectively.
- India's Tourism is ranked at 10th position in terms of its contribution to World GDP (Gross Domestic Product) in the World Travel and Tourism Council's report in 2019. We can significantly improve on this ranking with focused effort to holistically develop Tourism industry.

# Society

## Women empowerment through House ownership

**News:** Recently, the government stated that over 69% of houses constructed under the PMAY-Grameen are either wholly or jointly owned by women in rural areas.

### Why does this data matter?

- Firstly, it caters to the government's goal of women getting their fair share under government schemes thereby promoting Nari Shakti.
- The idea behind the initiative is to have "women-led" development instead of "development of women".
- It helps the aspirations of having ownership of pucca house and women being the owner of the same further helps build their confidence.
- It highlights increasing trend of participation of women in taking crucial financial decisions.
- Providing basic amenities like housing, water, electricity gives a sense of security and dignity to women as well as members of the family of poor households.
- It promotes social and financial inclusion.

### About PMAY-Grameen:

- The Pradhan Mantri Awas Yojana (Grameen) was launched 2015 with the aim of constructing 2.95 crore houses.
- The Pradhan Mantri Awas Yojana Grameen (PMAY-G) has been devised in line with Government's commitment to providing 'Housing for All' by 2022 in rural areas.
- The houses under PMAY come equipped with toilet, Saubhagya Yojna electricity Connection, Ujala Scheme LED bulb, Ujjwala gas Connection and water connection under Har Ghar Jal.

**Note – Schemes and data around women empowerment needs to be noted down separately. Quoting data shared by the government in your answers will add value to your answers and fetch you extra marks.**

## Konda Reddi Tribes and Bamboo Shoot

**News:** Dried bamboo shoots are an essential part of the tribe's dietary chart as they are believed to be highly nutritious.

### Background:

- A decorated garland of Bamboo shoots on entrance of houses in Alluri Sitarama Raju (ASR) district is a very familiar sight.
- The Konda Reddi tribal families hang such garlands to the roofs of their dwellings and dry them for a week. A week later, or whenever the shoots are fully dried, the families store them for consumption till the next monsoon.
- The dried bamboo shoots are a part of their diet during the monsoon as it improves their immunity against viral fevers.
- Now-a-days, even non-tribes have started consuming them in view of their nutritious value.
- The tribal people inhabiting in the forest and hill ranges are entitled to collect every form of bamboo tree, which is classified as **Minor Forest Produce (MFP)**. They have the right to exploit its commercial value for their livelihood.

### What is MFP?

- MFP includes all **non-timber** forest produce of plant origin and includes bamboo, canes, fodder, leaves, gums, waxes, dyes, resins, and many forms of food including nuts, wild fruits, honey, lac, tusser, etc.

### About Konda Tribe:

- It is one of the most backward tribal groups in the states of **Andhra Pradesh** and **Telangana**.

- They inhabit on both the banks of the Godavari River (East and West Godavari districts), in the hilly-forest region of Khammam (Telangana) and Srikakulam (Andhra Pradesh).
- Konda Reddis have also been recognized as **Particularly Vulnerable Tribal Group (PVTG)**
- They are known for their eco-friendly practices such as the use of household articles made of bamboo, bottle gourd, and seed.

**Note - To read more about PVTG in India click on the following link - <https://vikaspedia.in/social-welfare/scheduled-tribes-welfare/particularly-vulnerable-tribal-groups>**

## Centre revises Beti Bachao Beti Padhao scheme

**News:** The Central government has revised its flagship scheme Beti Bachao Beti Padhao and included several other initiatives such as **skilling of girls in non-traditional livelihood (NTL)** options.

### Key Details:

- To give a fillip to Beti Bachao Beti Padhao, a component of skilling in NTL has been introduced as part of the programme. Through this initiative, girls will be given skill training in non-traditional vocations thereby making them torchbearers of women-led Aatmanirbhar Bharat. NTL options are those where women are historically under-represented.
- The revision has been made with the aim to ensure **one per cent increment in enrolment at secondary level** and skilling of girls and women every year.
- The scheme shall also aim to raise awareness about safe menstrual hygiene and to promulgate elimination of child marriages.
- Increase in enrollment of girls in secondary education will be particularly focused on STEM subjects.

### How will implementation take place?

- A national committee will review the implementation of the Beti Bachao Beti Padhao scheme.
- It will be headed by the Secretary, Ministry of Women and Child Development, formed under the larger Mission Shakti mandate, will be the apex committee
- The committee shall meet at least once in a year preferably in the month of April and monitor the progress of the overall scheme activities and status of achievement of objectives.
- At the state-level, the overall implementation of Beti Bachao Beti Padhao will be done by a committee, headed by the chief secretary, WCD. Meanwhile, at the district level, the implementation will be headed by district magistrate/district collector.

## International Day for Rural Women

**News:** 15<sup>th</sup> October is celebrated as International Day of Rural Women.

### Background:

- The day aims to create awareness of the role of rural women who are engaged in employments which impacts on their family livelihood. In spite of being employed with almost two full time jobs their work goes unnoticed.
- It highlights the critical role they play in enhancing agriculture and rural development, ensuring food security and eliminating rural poverty.

**Theme - "Rural Women, key for a world free from hunger and poverty."**

### Issues faced by Rural women in India:

- In case of manual labor work, women are being paid less than men due to physical constraints in lifting weights.
- Majority of women construction workers are not registered as "Construction Workers" and therefore ineligible for any benefit accruing to them from the Construction Workers' Welfare Board.

- The rural economy suffers when women stop looking for work because they feel there is no work available which is often incorrectly described as "dropping out" or "Leaving the market".
- What the women earn from multiple tasks, for which there are no fixed rates is in no way equal to the amount of labor they do.
- Due to less wages, lack of jobs it is the rural women who compromise on their food intakes for the sake of the family. This inadvertently leads to health issues, malnutrition issues among new born kids etc.

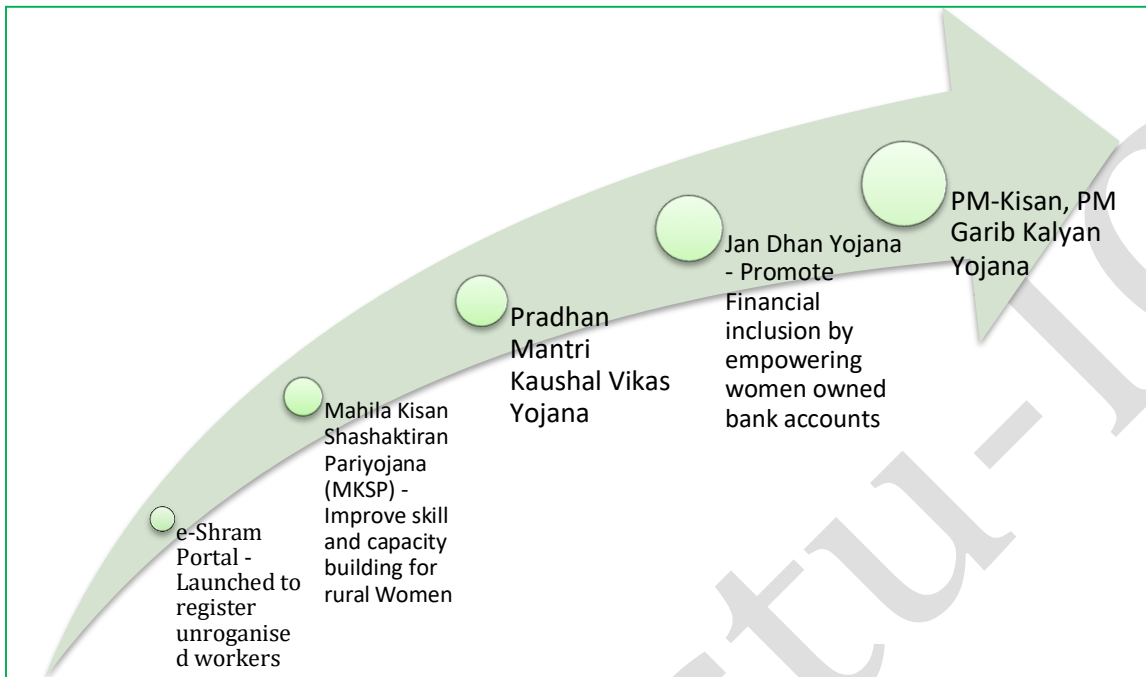


Figure 1 Schemes for Rural Women

### Way forward

- Providing quality education and training to rural women is the key to empower them.
- Surveys need to be conducted in Rural India to be aware of the ground realities. We must have data on how women spend their time other than being engaged in household duties.



# Geography

## Monsoon's Retreat

**News:** The South-West monsoon is retreating after providing 6.5% higher than normal rainfall from June to September with a crucial bearing on crop output during the kharif or summer season.

### What has been observed regarding monsoon this season?

- Normal broadly means that rainfall over the season is between 96% and 104% of the long period average of 868.6 mm. Even with above normal rains at an all-India level-the fourth successive good season-the monsoon has been **erratic temporally and spatially**.
- Although there was an earlier onset over Kerala in late May, there was a **subsequent lull** in its progress with **deficient rainfall during June**.
- As it revived, there was **surplus rainfall during July to September**. Spatially, the eastern and north eastern parts of the country experienced significant deficiency, of 18%, while central and peninsular India received rainfall of 19% and 22% higher than the LPA, respectively.
- Another characteristic of this year's monsoon is that the **number of light and moderate rainfall** events has been **decreasing** while **the number of heavy rainfall days has been rising**. There were 1,874 heavy rainfall events this year when compared to 1,636 events last year according to **India Meteorological Department's report** on the salient features of monsoon 2022. (You can quote such data and numbers also on possible impacts of climate change on monsoon)

### What is impact of erratic rains?

- The monsoon's uneven progress during the crucial months of June and July **impacted kharif sowing** operations for paddy, coarse cereals, pulses, oilseeds, cotton and soya bean.
- Till End-September, the overall kharif sown area was **0.8% less than a year ago** at 110.2 million hectares. The shortfall was greater for paddy due to rainfall deficiency in Uttar Pradesh, Bihar, Jharkhand and West Bengal.
- On the other hand, **surplus rains in September delayed harvesting of paddy in the northern regions** while it helped add some area in southern states like Karnataka, Telangana and Tamil Nadu.
- As a result, the country's rice production-at 104.99 million tonnes is **expected to be less by 6% than a year ago** during the 2022-23 cropping season, according to the **first estimate of food grain production** released by the **agriculture ministry**.

### What is the need of the hour?

- As the monsoon affects India's agricultural sector, it is **necessary to improve the forecasting** of its progress during the season. While there is no doubt an improvement in IMD's predictions, accuracy is not high at a location-specific level.
- But the larger moral of the story is to **encourage a shift in cropping patterns** away from water-intensive crops like paddy in the vanguard agrarian regions. This diversification however entails a **larger policy rethink** on the **existing practice** of procuring food grain **at minimum support prices** as urged by a member of the official think-tank Niti Aayog.

### Way Forward:

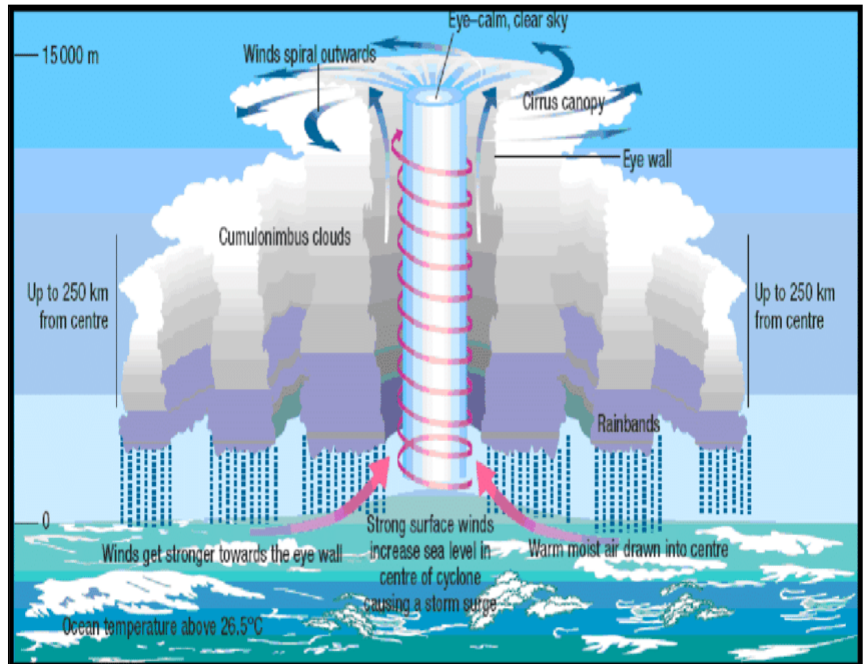
- Farmer incomes can be boosted manifold with crop diversification from staple cereals to high-value crops.
- To cope with an erratic monsoon, there is a need to **build more irrigation facilities** in the **rain-fed regions** and **develop short duration crop strains** to enable farmers to make timely shifts in cropping patterns.

## Cyclone Sitrang

**News:** Named by Thailand, Sitrang is the first tropical cyclone of the post-monsoon season of 2022. The cyclone severely affected various regions in Bangladesh.

### What are Tropical cyclones?

- A tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- The most important feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called hurricanes in the North Atlantic and eastern Pacific and typhoons in South-east Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in north-western Australia.
- Storms rotate counterclockwise in the northern hemisphere and clockwise in the southern hemisphere.



### What are the conditions that favor formation of cyclone?

- Presence of Coriolis force.
- A pre-existing weak low- pressure area or low-level-cyclonic circulation.
- Large sea surface with temperature higher than 27°C.
- Small variations in the vertical wind speed.
- Upper divergence above the sea level system.

# General Studies – 2

## **Polity & Constitution**

1. Indian Constitution—historical underpinnings, evolution, features, amendments, significant provisions and basic structure.
2. Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.
3. Separation of powers between various organs dispute redressal mechanisms and institutions
4. Comparison of the Indian constitutional scheme with that of other countries.
5. Parliament and State legislatures—structure, functioning, conduct of business, powers & privileges and issues arising out of these.
6. Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.
7. Salient features of the Representation of People’s Act.
8. Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.
9. Statutory, regulatory and various quasi-judicial bodies.

## **Social Justice**

10. Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
11. Development processes and the development industry —the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.
12. Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.
13. Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.
14. Issues relating to poverty and hunger.

## **Governance**

15. Important aspects of governance, transparency and accountability, e-governance, applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.
16. Role of civil services in a democracy.

## **International Relations**

17. India and its neighborhood- relations.
18. Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests.
19. Effect of policies and politics of developed and developing countries on India’s interests, Indian diaspora.
20. Important International institutions, agencies and fora- their structure, mandate

# Polity & Governance

## NEP prescribes no Language – States given freedom to Choose

**News:** As per a Central government panel, the NEP will provide freedom to choose the language of instruction.

- The ministry of education in 2021 had appointed the **Bhartiya Bhasha Samiti** which was tasked to prepare an action plan for the growth of Indian languages as prescribed under NEP 2020.
- It was required that **mother tongue** be the medium of instruction in schools and higher education institutions.

### What were the points highlighted by the Committee?

- The committee has found that there are 35 mother tongues as mediums of instruction, and as part of the three-language formula, 160 languages as well as mother tongues are taught.
- Focus has been on providing study material in languages of the Eighth Schedule of the Constitution from Class 1 to the post-graduate level in all streams of education.
- Efforts are also being made to incorporate language as a qualification for teaching jobs as there is a need to prepare teachers to be bilingual.
- As nearly 50% of citizens speak Hindi the committee was of opinion that there should be an intent to learn Hindi which will act as a unifying factor across the nation.

### Salient Features of NEP 2020:

- Universal access to education at all levels of school from pre-primary to Grade 12.
- Ensuring quality early childhood care and education to all children between 3-6 years.
- Emphasis on promoting multilingualism and Indian languages where the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language.
- Focus on giving equitable and inclusive education by emphasizing on socially and economically disadvantaged groups.
- Increasing Gross Enrollment Ratio in Higher education to 50%.
- New curricular and pedagogical structure (5+3+3+4) and establishing National mission on Foundational literacy and numeracy.
- Achieving 100% youth and adult literacy.
- Expansion of open and distance learning to increase Gross Enrollment Ratio (GER).
- Setting up of National research foundation and Setting up of a new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development)

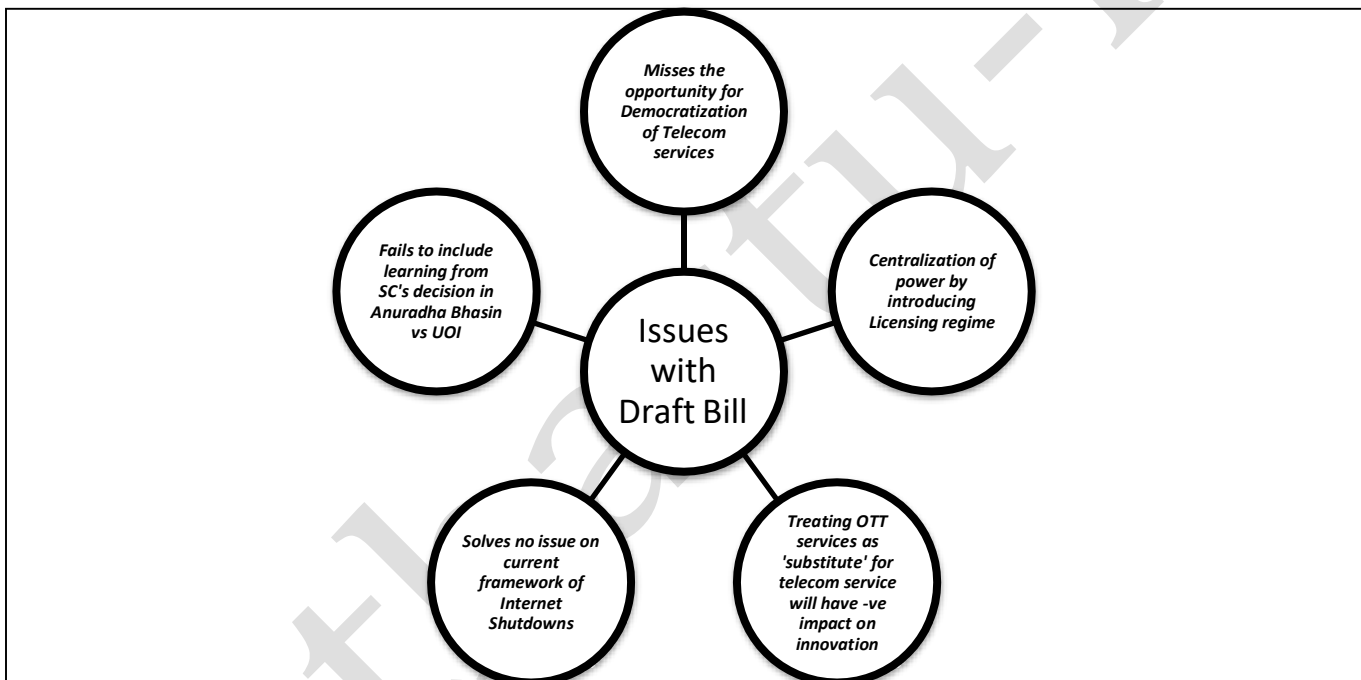
## Draft Telecommunication Bill 2022

**News:** The draft Indian Telecommunication Bill, 2022 (Telecom Bill) published for public consultation aims to create a legal framework attuned to the realities of the 21st century.

### Key Highlights of the Bill:

- It **consolidates three separate acts** – The Indian Telegraph Act, 1885, Indian Wireless Telegraphy Act, 1933 and The Telegraph Wires (Unlawful Protection) Act, 1950.
- The government has **included internet-based and OTT communication services** such as WhatsApp calls, Facetime, Google Meet etc. **under telecom services**. It was the long-standing demand by telecom operators for creating a level playing field. At present, while telecom companies need a license to offer services, OTT platforms do not.
- The DoT has also proposed to **dilute some crucial powers** and responsibilities of the Telecom Regulatory Authority of India (**TRAI**) on **issuing new licenses** to service providers.

- In the **case of insolvency**, the spectrum assigned to an entity shall revert to government control, and the Central Government may take such further action, as may be prescribed, which may include allowing such licensee or assignee to continue to use the spectrum.
- The telecom ministry has proposed a **provision for refund of fees** in case a telecom or internet provider surrenders his license.
- Universal Service obligation fund to be renamed as Telecommunication development fund. The fund will be utilized to boost connectivity services in underserved rural, remote, and urban areas. It will also aid research and development of new telecommunication services, skill development, and support the introduction of new telecommunication services.
- In the case of **payment default**, and in **extraordinary circumstances**, including financial stress, consumer interest, maintaining competition in the sector, or reliability and continued supply of telecommunication services, the **government can defer** the payment of such amounts, **convert a part or all of the amounts payable into shares, write-off payable amounts or provide relief** from payment.
- It enables the government to **order suspension of internet power**. It has been introduced through the draft Bill. Currently, suspension of internet services is ordered under the Temporary Suspension of Telecom Services (Public Emergency and Public Safety) Rules, 2017.



#### Way Forward:

- The impact Internet shutdowns have on the fundamental right to free speech of citizens, the high economic costs have been consistently raised as a criticism which needs to be addressed.
- By exercising its exclusive privilege to issue a license, the central government may ask the online service providers to store data locally. This discretion to the government may adversely affect the privacy of individuals. Therefore, concerns over such matters need to be addressed too.

## The Criteria for SC status

**News:** Recently, the Supreme Court of India has sought the petitions challenging the Constitution (Scheduled Castes) Order of 1950, which allows only members of Hindu, Sikh and Buddhist religions to be recognized as SCs excluding Dalit Christians and Muslims from its ambit.

#### Who is included in the Constitutional order of 1950?

- The **Constitution (Scheduled Castes) Order of 1950** initially provided for recognizing **only Hindus** as SCs, to address the social disability arising out of the 'practice of untouchability'.



- On the recommendations of **Kaka Kalelkar Commission 1955** the Order was amended in 1956 to **include Dalits** who had **converted to 'Sikhism'** and **once more in 1990** to include Dalits who had converted to **'Buddhism'**.
- The **Union government** in 2019 **rejected** the possibility of including **Dalit Christians** as members of SCs, rooting the exclusion on an **Imperial Order of 1936** of the then colonial government.

#### **Why are Dalit Christians excluded?**

- The practice of Untouchability was a feature of Hindu religion and it didn't extend to Christianity or Islam.
- The Registrar General of India had cautioned the government that SC status is meant for communities suffering from social disabilities arising out of the practice of untouchability.
- Clause (2) of Article 341 for inclusion - Dalits who converted to Islam or Christianity belonged to different caste groups, as a result of which they cannot be categorized as a "single ethnic group (required for inclusion)".

#### **Why should they be included?**

- Several Independent Commission reports have documented the existence of caste and caste inequalities among Indian Christians and Indian Muslims.
- Even in Sikhism and Buddhism, casteism is not present and yet they have been included as SCs.
- The reports argued that caste-based discrimination continues even after conversion, hence entitling these communities to SC status.

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

- It was established in 1949 under the **Ministry of Home Affairs**.
- It's main role is to develop a systematic collection of statistics on the size of the population, its growth, etc. Later, this office was also entrusted with the responsibility of implementing of Registration of Births and Deaths Act, 1969 in the country.
- It arranges, conducts and **analyses the results of the demographic surveys** of India including the **Census of India** and **Linguistic Survey of India**.

## **J&K delimitation orders have acquired the 'force of law'**

**News:** The Home Ministry and the Election Commission of India (ECI) have both agreed in the SC, that delimitation orders of redrawing Assembly and Lok Sabha constituencies in the Union Territory of Jammu and Kashmir have acquired the "force of law".

#### **Background:**

- A petition was filed by a Srinagar resident which challenged the constitution of Delimitation commission on March 6, 2020.
- The issue raised in petition stated that the increase in the number of Assembly seats in Jammu and Kashmir was unconstitutional and ultra vires the Jammu and Kashmir Reorganization Act, 2019.
- Also, questions were raised that why was J&K being singled out for delimitation when the next exercise in the country would have only been taken up after 2026.

#### **What was government's response?**

- The Centre has mentioned that it derives its powers to form, and fix the scope and tenure of the Delimitation Commission under Section 3 of the Delimitation Act of 2002, which is a 'special legislation'.
- The centre also stated that full opportunity was given to members of public to make oral and written submissions to the delimitation commission.
- The government also added that the delimitation order cannot be "re-agitated" in a court once it had gained finality by publication in the gazette. Hence, after notification in the official gazette, redrawing Assembly and Lok Sabha constituencies in the Union Territory of Jammu and Kashmir have acquired the "force of law".

## What is Delimitation commission?

- Delimitation is the act of fixing or redrawing the limits or boundaries of territorial constituencies (Assembly or Lok Sabha seat) in a country or a province having a legislative body, as per the Election Commission.
- The delimitation exercise is carried out by an independent high-powered panel known as the Delimitation Commission whose orders have the force of law and cannot be questioned by any court.
- Delimitation Commissions had been set up four times — 1952, 1963, 1973, and 2002.
- Under **Article 82**, the **Parliament enacts a Delimitation Act after every Census**.
- Under **Article 170**, States also get divided into territorial constituencies as per the Delimitation Act after every Census.
- The Delimitation Commission is **appointed by the President of India** and works in collaboration with the Election Commission of India.

### Composition of Delimitation Commission:

- Retired Supreme Court judge
- Chief Election Commissioner
- Respective State Election Commissioners

## Parliamentary Standing Committees

**News:** Recently, 22 Standing Committees were reorganized.

### What are PSC?

- A Parliamentary Committee is a panel of MPs that is appointed or elected by the House or nominated by the Speaker/Chairman. The committee works under the direction of the Speaker/chairman and it presents its report to the House or to the Speaker/chairman.
- They are permanent committees that are constituted every year.
- They draw their authority from Article 105 and Article 118 of the Constitution of India.

### Significance of PSC:

- **Expertise in law making**
  - Parliamentary committees are meant to help MPs seek expertise and give them time to think about issues in detail.
- **To ensure Accountability**
  - Increased work pressure, time constraints and complex tasks involved in Parliament makes it difficult to uphold accountability of the executive.
  - PSC help in thorough scrutiny of bills, how parliament functions and therefore enhances Parliament's ability to scrutinize government policies and help in providing informed debate in the house.
- **Play the role of Mini-parliament**
  - These committees act as a mini-parliament, as they have MPs representing different parties are elected into them through a system of the single transferable vote, in roughly the same proportion as their strength in Parliament.
- **Promote Free speech and Non-partisan debate**
  - The PSC meetings are closed-door meetings where the MP's can express their opinion very clearly without fear of being tied to party whips.
- **Uphold Fiscal prudence**
  - PSC examines budgetary allocations for various departments and other policies of the government. It ensures fiscal economy and efficiency in public expenditure. Although their recommendations are

not binding on the government their opinions and observations are closely followed by the executive.

- **Act as a link between Parliament and Citizens**
  - They seek public feedback to make laws more holistic.
- **Protect Interest of Citizens** - The PSC on Information Technology grilled two Twitter India representatives last year over concerns about safeguarding people's rights on the social media platform.

#### **How can we reform PSC's?**

- Major committee reports especially the ones where there is any kind of disagreement between government and committee must be discussed in the Parliament.
- Some constitutional experts have recommended to increase the PSC tenure from 1 year to two years, to give them more time and gain more expertise in their respective fields.
- If the committees had longer tenure than members of the committees could become specialists and then hold the government more accountable in parliamentary deliberations.
- It should be made mandatory for all the bills and budgets to be examined by PSC by convention.

#### **Way Forward:**

- Strengthening parliamentary committees will empower MP's to improve quality of legislative work. Also, concerned ministers should also be encouraged to appear before committees to defend the government/policy when questioned by the PSC. This practice is common in other countries and needs to be encouraged in India too.

## **Democratic Decentralization**

**News:** It has been almost 30 years since the 73rd and 74th constitutional amendment Acts were passed to facilitate democratic decentralization in India.

#### **What is Democratic Decentralization?**

- Democratic decentralization is the process of devolving the functions and resources of the state from the Centre to the elected representatives at the lower levels so as to facilitate greater direct participation of citizens in governance.
- As envisioned by the Indian constitution, democratic decentralization is not merely delegation but it must involve active participation of local governments that are backed by adequate resources, powers and required staff to help them carry out their responsibilities.

#### **What are Constitutional provisions that govern promote Democratic Decentralization?**

- Article 40 - The State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.
- The 73rd and 74th Amendments, by constitutionally establishing Panchayati Raj Institutions (PRIs) in India, mandated the establishment of panchayats and municipalities as elected local governments.
- The 11th Schedule contains the powers, authority and responsibilities of Panchayats.
- The 12th Schedule contains the powers, authority and responsibilities of Municipalities.

#### **Issues:**

- Some of the Gram Panchayats (GPs) do not have their own building and they share space with schools, Anganwadi centres and other places. Lack of basic facilities like toilets, drinking water, and electricity connection.
- The devolution of power and authority to Panchayati has been left to the discretion of states.
- Despite the constitutional empowerment, the local bodies face problems of inadequate finance to carry out various activities assigned to them. The state finance commission is not constituted on regular basis in some states.
- States often postpone the elections and violate the constitutional mandate of five yearly elections to local governments. For example, Tamil Nadu urban local body polls were conducted after a gap of 10 years this February.

- They merely act as an implementation agency rather than their envisaged role as a policy-making body for local development.
- Local governments face issue of shortage of staff. In most cases, as staff are hired by higher level departments and placed with local governments on deputation, they do not feel responsible to the latter.
- Excessive control by bureaucracy in some states places GPs in a subordinate position.

#### **What are the steps taken to empower Democratic Decentralization?**

- Rashtriya Gram Swaraj Abhiyan - To address the challenges faced by the rural local bodies and increased fund flow to Village Panchayati.
- E-Gram Swaraj - Launched by the Ministry of Panchayati raj it aims to bring better transparency in planning and program implementation.

#### **Way Forward:**

- Gram Sabha's and wards committees in urban areas have to be revitalized to achieve the objective of people's participation in real terms.
- Local government organizational structures have to be strengthened with sufficient manpower, powers and authority. Local governments must be enabled to hold State departments accountable and to provide quality, corruption-free service to them.
- The center needs to financially incentivize states to encourage effective devolution to the Panchayats in functions, finances and functionaries.
- Provide Training to local representatives to develop expertise so that they contribute more in planning and implementation of policies and programmes.
- The Ministry of Panchayati Raj should monitor the release and expenditure of Finance Commission grants to ensure that there is no delay in their release. It should also be ensured that grants are utilized in a proper and effective manner. Panchayats should also be encouraged to carry out local audits regularly so that Finance Commission grants are not delayed.

## **SC says no to prosecution under Section 66A of IT Act**

**News:** The Supreme Court ordered States and their police forces to stop prosecuting free speech on social media under Section 66A of the Information Technology Act, 2000.

#### **Background:**

- Section 66A of the Information Technology Act, of 2000 made it a punishable offence for any person to send offensive information using a computer or any other electronic device.
- The court struck down the provision as unconstitutional and a violation of free speech in 2015 in the **Shreya Singhal Case**.
- The section relating to restrictions on online speech was declared unconstitutional on grounds of violating the freedom of speech guaranteed under Article 19(1)(a) of the Constitution of India. It held that online intermediaries would only be obligated to take down content on receiving an order from a court or government authority.
- However, as many as 745 cases were still pending and active before the district courts in 11 States under Section 66A. The court found it both "distressing" that the police had continued to pick out people and prosecute them. Under this section despite the highest court in the country have struck down the law.

#### **What were Supreme Court's instructions?**

- No citizen can be prosecuted for violation of alleged offenses under Section 66A of the IT Act, 2000.
- In the cases where citizens are facing prosecution for violations of Section 66A, the reference and reliance upon 66A from all crimes shall stand deleted.
- SC has directed to the government machinery of the States and Union Territories to instruct their entire police force not to register any complaint of crime with respect to violation of Section 66A.
- If the crime has other facets, where other offenses are also alleged, those shall not be deleted.

- The court has also directed that law books should contain a short note, that the provision was struck down by the Supreme Court as violative of the Constitution.

#### Issues with Section 66A:

- The weakness of Section 66A lay in the fact that it had created an offence on the basis of undefined actions: such as causing “inconvenience, danger, obstruction and insult”, which do not fall among the exceptions granted under Article 19 of the Constitution, which guarantees the freedom of speech.
- No procedural safeguards. Local authorities could proceed autonomously, literally on the whim of their political masters.
- Section 66A was contrary to both Articles 19 (free speech) and 21 (right to life) of the Constitution.

## PM bats for use of regional language in Legal system

**News:** Prime Minister Modi recently inaugurated the All-India Conference of Law Ministers and Law Secretaries via video conference. While speaking at conference, he stressed that new laws should be written in a clear manner and in regional languages to bring in “**ease of justice**,” so that even the poor can easily understand them and legal language doesn’t become a barrier for citizens.

#### What are various Constitutional provisions pertaining to the matter?

- **Article 348(1)(a)** states that unless Parliament by law provides otherwise, **all proceedings before the Supreme Court and in every High Court shall be conducted in English.**
- **Article 348(2)** provides further that notwithstanding the provisions of Article 348(1), **the Governor** of a state may, with the **previous consent of the President**, authorize the **use of Hindi or any other language** used for any official purpose, in **proceedings in the High Court.**
- A further provision states that nothing in this clause would apply to any judgement, decree, or order made by the High Court. Therefore, the **Constitution recognizes English as the primary language** of the **Supreme Court** and the **High Courts**, with the caveat that when some other language is used in the proceedings of High Courts, **judgments of the High Courts** must be delivered in **English.** (Read this point very carefully)

#### What is the Official Languages Act of 1963?

- It empowers the Governor of a state to, with previous consent of the President, **to authorize the use of Hindi/the official language of the state, in addition to English**, for the purpose of any judgement, decree or order passed by the High Court of that state.
- It further provides that where any judgement/decree/order is passed in any such language it shall be accompanied by a translation of the same in English.
- **Read with the constitutional provisions**, it is clear that **primacy is given to English even by this Act.** It is clear that the act makes no mention of the Supreme Court, where English is the only language in which proceedings are conducted.

#### What is the language used in Subordinate courts?

- There are two provisions regarding the use of language in subordinate courts. Under **Section 137 of the Code of Civil Procedure**, the language of the district courts shall be similar to the language of the act.
- The **state government** has the power to declare any regional language as an alternative for the proceedings of the court. However, judgments, orders, and decree may be passed by the magistrate in English, the recording of the evidence shall be done in the prevailing language of the state and in case of a person is not used to with English, a translation into the language of the court shall be supplied to him on his request and the court shall bear such costs.
- **Section 272 of the Code of Criminal Procedure 1973**, states that the State government shall determine the language of all courts other than the High Courts. In other words, it means that the language used in the district courts shall be in the regional language as the state government directs.



# National Credit Framework

**News:** The Ministry of Education recently unveiled a draft 'National Credit Framework' (NCrF) which aims to bring the entire education system, from school to university, into the academic 'credit' regime and has sought public view.

- School students in India can soon earn 'credits' from classroom learning as well as extracurricular activities and deposit them in a 'bank' - much like the system already being followed in some colleges and universities.

## What are credits and credit frameworks?

- Credits are essentially a "recognition that a learner has completed a prior course of learning, corresponding to a qualification at a given level", according to the draft document. In other words, it is a way of quantifying learning outcomes.
- Credit frameworks are guidelines to be followed by schools, colleges and universities in adopting the credit system. For example, the National Higher Education Qualification Framework (NHEQF) lays out the guidelines for higher educational institutions that want to implement the credit system.

## How is the NCrF different from the existing frameworks?

- The proposed NCrF seeks to integrate all the frameworks under one umbrella. Moreover, it also brings the entire school education system under the ambit of credits for the first time.
- So far, only the National Institute of Open Schooling followed a credit system. The NCrF also covers skill and vocational education.

## What are the highlights of NCrF?

- The biggest change that the NCrF, once implemented, will usher in is in the school education sector.
- All the provisions of the credit system will also be available to school students. It will remove the need for equivalence certification for academic programmes that meet the NCrF requirements and facilitate transfer of students between schools and boards.
- "NCrF addresses the difficulties students are facing in respect of equivalence of certificates issued by various school education boards in India for the purpose of admissions in higher education institutions and employment in Central/State Government."
- A student shall have to earn at least 40 credits for completing a year of school education after putting in 1200 hours of "notional learning hours".

## What are "notional learning hours"?

- Notion learning hours in the context of NCRF means time spent not just in classroom teaching, but also in a range of co-curricular and extracurricular activities. The list of such activities include sports, yoga, performing arts, music, social work, NCC, vocational education, as well as on the job training, internships or apprenticeships.

## How will credit points be obtained?

- For the purpose of calculation, the NCrF has divided the education system into multiple levels.
- For school education, there are four levels. Students clearing class XII will be at credit level 4.
- For higher education, the levels are from 4.5 to 8 - which is basically from first year UG to PhD. The total credit points earned by the student will be obtained by multiplying the credits earned by them with the NCrF level at which the credits have been earned.

# Social Justice

## Abortion Rights

**News:** The Supreme Court has delivered a seminal judgement that could have a significant impact in enlarging and expanding women's reproductive rights in the country.

- The apex court said that all women – whether married or in consensual relationships, and including “persons other than cis-gender women” – are entitled to seek abortion within 20-24 weeks of the pregnancy.

### Things to know about the Judgement:

- **Gives Single/unmarried woman worthy respect** – Prior to the Supreme court judgement, single women who needed abortion services were subjected to shaming, harassment and violation of their privacy by medical practitioners before being provided abortion services. The recent SC verdict broadens the interpretation of Rule 3B which stated that rule could not be limited to only married women. Rule 3B of MTP Act denied access to abortion for unmarried women during the period of 20-24 weeks.
- **Addresses the hurdles faced by 'minor girls'** – The POSCO act, 2012 required providers of medical termination of pregnancy to mandatorily report on sexual assault of a minor. The court however held that for the limited purposes of providing medical termination of pregnancy under the MTP Act, medical practitioners need not disclose the identity and other personal details of the minor to ensure that the rights of privacy and reproductive autonomy of the minor are protected.
- The court also addressed sexual violence within marriage and recognized marital rape as a condition for abortion up to 24 weeks. (however, this would not amount to recognition of marital rape or the removal of the exception under the IPC)
- The court acknowledged that the law has to recognize the competence and authority of every woman to take her own reproductive decisions, including the decision to terminate her pregnancy.
- It **upheld right of all women and girls to make reproductive choices for themselves**, without undue interference from the state, and recognized that any deprivation of access to reproductive healthcare also affects the dignity of women.

In its recognition of every woman as the arbiter of her own body and in respecting her right to choose, the recent SC judgement is important and laudable.

## Issues with Drug Regulation in India

**News:** The World Health Organisation (WHO) issued an alert about four Indian-manufactured cough syrups, which are said to be linked to acute kidney injury in children and 66 deaths in the small West African nation of The Gambia.

### What was the issue?

- The syrup was found by WHO to be adulterated with diethylene glycol (DEG) and ethylene glycol.
- These chemicals are toxic to humans, and can result in abdominal pain, vomiting, diarrhoea, inability to pass urine, headache, and altered mental state.
- As already mentioned above, it can also lead to acute kidney injury that can prove fatal in children.

### About Drug Regulations in India (Central level)

- Drug regulation in India is a complex process managed by law, mainly the Drugs and Cosmetics Act of 1940, and by multiple ministries, including the Ministry of Health and Family Welfare. The law creates a web of regulatory authorities to govern the process at both the central and the state level.

- At the central level, the Drugs and Cosmetics Act, 1940, has created the Central Drugs Standard Control Organisation (CDSCO), within which the Drugs Controller General of India (DCGI) is the key regulatory authority, acting under the advice of the Drug Technical Advisory Board (DTAB) and the Drug Consultative Committee (DCC).
- CDSCO operates through zonal offices spread across the country, which have designated roles in drug regulation, such as inspections, recalls, and market surveillance.
- CDSCO also has a role in overseeing the functioning of state authorities involved in drug regulation.

### About Drug Regulation in India (State level)

- We also have State drug regulatory authorities, which are statutory bodies created under the Drugs and Cosmetics act, 1940. They fall under the ambit of respective health departments of each state and have limited aspect of drug regulation.

### Role of CDSCO:

- Prescribes standards and measures for ensuring the safety, efficacy and quality of drugs, cosmetics, diagnostics and devices in the country.
- Regulates the market authorization of new drugs and clinical trials standards.
- Supervises drug imports and approves licenses to manufacture products.
- CDSCO regulates export of drugs in India, any manufacturer with the certification from CDSCO can export drugs outside India.

### Role of Drugs Controller General of India:

- DCGI is the head of department of the CDSCO of the Government of India responsible for approval of licences of specified categories of drugs such as blood and blood products, IV fluids, vaccines and sera in India.
- She/he also sets standards for manufacturing, sales, import, and distribution of drugs in India.

## Decoding the regulatory norms

### Who can export drugs from India?

Any manufacturer with a certification from the Central Drugs Standard Control Organisation (CDSCO) – the apex regulatory body for cosmetics, pharmaceuticals and medical devices.

### Do drugs manufactured in India for export need to be tested domestically?

At the time of issuing license, drugs inspectors assigned by the Indian regulator may lift samples in any phase of manufacturing for quality checks. It is, however, not mandatory; and rarely done

### What safety norms need to be adhered to?

First point of testing is at a manufacturer's level, to ensure that the drug adheres to the safety norms prescribed by the Indian Pharmacopoeia, and the regulatory requirement of the country of export. However, generally speaking, destination countries expect nations of origin to strictly follow the norms prescribed by the pharmacopoeia under which the sale is governed.

### What are the intn'l drug safety norms?

Drug regulatory norms are usually country-specific and are enforced at the level of individual countries. The US, Japanese, British, European and Chinese pharmacopoeias act as reference points for uniform preparations for the most commonly used drugs – with tests to ensure their quality, potency and purity. The WHO's prequalification programme is another criterion wherein the UN body certifies sale of drugs/vaccines under the UN programmes.

### Are destination nations responsible for safety?

Some countries do internal testing at the point of entry, but it is not mandatory and varies by the country.

### For sale domestically

### What are the checks in place to ensure the safety of drugs in India?

The CDSCO and state drugs regulators are responsible for ensuring quality of drugs that are manufactured, sold or distributed in Indian markets.



### Maiden Pharma controversies

**KERALA:** Maiden Pharmaceuticals' drugs - Metomin, Easiprin, and Maical-D - were lifted from the markets after they were found to be substandard

**BIHAR:** The state health department blacklisted the firm for 5 years in 2011 after six batches of two of its drugs were found "not of standard quality"



## Freedom of Attire

**News:** Recently, the Supreme Court has delivered a **split verdict** in the Karnataka Hijab ban case. In case of a split verdict, the case is heard by a larger Bench. In March, 2022, the Karnataka high court had dismissed the petitions filed by a section of Muslim students in Karnataka seeking permission to wear the hijab inside classrooms, ruling it is **not a part of the essential religious practice** in Islamic faith.

### What is the essential religious practice doctrine?

- The Supreme court in 1954, in the **Shirur Mutt case** held that the term "religion" will cover all rituals and practices "integral" to a religion. The test to determine what is integral is termed the "essential religious practices" test. What constitutes the essential part of the test is to be determined based on the tenets of religion itself.
- Hence, some acts obtained constitutional protection by being declared, "essential" to the practice of that religion. And some were denied protection on the ground that they were not essential to it.

## What were previous judgements given on Hijab case?

- As per the SC, wearing of hijab (head scarf) by Muslim women does not form a part of essential religious practices in Islamic faith. And it is not protected under the right to freedom of religion guaranteed under Article 25, of the Constitution of India.
- The court ruled that prescription of school uniform does not violate either the right to freedom of speech. And expression under Article 19(1) (a) or the right to privacy under Article 21 of the Constitution. And the restriction against wearing of hijab. In educational institutions is only a reasonable restriction constitutionally permissible, which the students cannot object to.
- In **Fathima Tasneem vs State of Kerala** (2018). A single bench of the Kerala HC held that **collective rights** of an **institution** would be **given primacy** over **individual rights** of the petitioner. The case involved two girls, represented by their father who wanted his daughters to wear the headscarf as well as a full-sleeved shirt.

## What led to the Split verdict?

- As both the judges had differing views, it was decided that the matter be placed before the Chief Justice of India for further discussions. This also means that the ban on Hijab in Karnataka classrooms will continue.

Justice H Gupta's views	Justice Sudhanshu Dhulia's views
He upheld Karnataka's government's prohibitive government order, saying apparent symbols of religious belief cannot be worn to secular schools maintained from State funds.	On the other hand, Justice Sudhanshu Dhulia said secularity meant tolerance to "diversity".
Secularity' meant uniformity manifested by parity among students in terms of uniformity.	Wearing or not wearing a hijab to school is ultimately a matter of choice (Article 19(1)(a))
If students were refusing to attend classes, it would not amount to the denial of education by the state.	According to him, asking girls to take off their Hijab is an invasion of their privacy guaranteed by Article 21, attack on their dignity and denial to them of secular education.

## Reading India's Hunger Score

**News:** The authors of the **Global Hunger Index**, write that "the level of hunger in India is serious".

### Background:

- India ranks **107 out of 121 countries** (under the "serious category") on the Global Hunger Index released by Concern Worldwide and Welthungerhilfe.
- Concern Worldwide is an international humanitarian organisation dedicated to tackling poverty and suffering in the world's poorest countries.
- Welthungerhilfe is one of the largest private aid organisations in Germany, independent of politics and religion.
- The Indian government responded by summarily dismissing the report, calling it "misinformation" and part of a "consistent effort" to "taint India's image".

### Key Findings:

- India's score of **29.1** is in the '**serious**' category. We rank below Sri Lanka (64), Nepal (81), Bangladesh (84), and Pakistan (99).
- India's **child wasting rate** (low weight for height): It is **19.3%** which means **close to 20% of children** in the country below the age of 5 suffer from most visible and life-threatening form of malnutrition.
- **Undernourishment** - It has risen in the country from 14.6 % to 16.3%.
- However, we do see improvement in **child stunting** (low-height for age) and **child mortality** (share of children who die before their fifth birthday) between 2014 and 2022 - Child stunting has declined from **38.7% to 35.5%** and Child mortality has also dropped from **4.6% to 3.3%**.



## Why is the government against the findings?

- The GOI contends that report ignores the food security efforts undertaken during the pandemic, especially the provision of 5 kg foodgrain to all beneficiaries of the NFSA in addition to their regular ration.
- The definition of 'hunger' according to the Index. It defines hunger in terms of other variables beyond the lack of food.
- The proportion of the undernourished population, is based "on an opinion poll conducted on a small size of 3,000."
- 3 of the 4 variables used for children cannot be representative of the entire population.

## Is the government's stand justified?

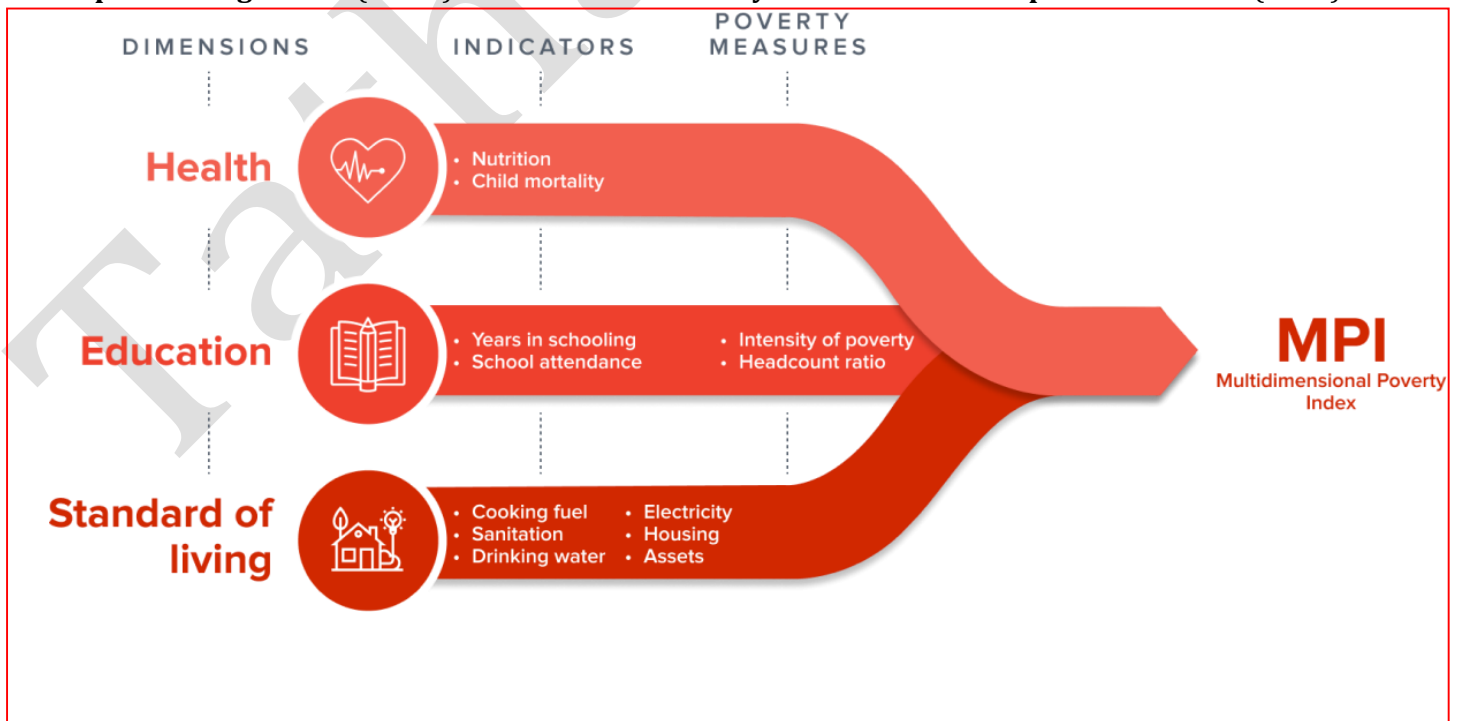
- Experts however point out that the **nutrition deficit** of the country's children is, in large, a function of their **poor diets**.
- Even the well-off in the country do not consume adequate amounts of fruits, vegetables, and non-cereal proteins. Eggs do not figure in the MDM schemes in majority of states.
- The authors of GHI argue that it draws its findings based on data reported by member countries, including India.
- The NFHS-5, conducted just before the pandemic, showed that more than 20% of children below the age of 5 did not weigh as much as they should.

## More on GHI, indicators and their weightage:

- The GHI score is calculated on a 100-point scale reflecting the severity of hunger. Zero is the best score (no hunger) and 100 is the worst. Each set of GHI scores uses data from a 5-year period. The 2022 GHI scores are calculated using data from 2017 through 2021.
- Undernourishment - (1/3 weightage)
- Child stunting (1/6)
- Child wasting (1/6)
- Under 5 Child mortality (1/3)

## Global Multidimensional Poverty Index

**News:** The Global Multidimensional Poverty Index (MPI) 2022 was recently released by the **United Nations Development Programme (UNDP)** and the **Oxford Poverty and Human Development Initiative (OPHI)**.





**Note - You can make note of some of the data here. Remembering every single data is not advisable. However, do remember the indicators/dimensions of the Index and the organizations who have published it.**

**About:**

- It measures **acute multidimensional poverty** across more than **100 developing countries**.
- The MPI monitors deprivations in **10 indicators** spanning health, education and standard of living and includes both incidence as well as intensity of poverty.
- A person is multidimensionally poor if she/he is deprived in **one third or more of the weighted indicators** (out of the ten indicators). Those who are deprived in **one half or more** of the weighted indicators are considered living in **extreme multidimensional poverty**.

**Key findings:**

- India has the largest number of poor people at 22.8 crore, followed by Nigeria (9.6 crore). Two-thirds of these people live in a household in which at least one person is deprived of nutrition.
- The incidence of poverty fell from 55.1% in 2005/06 to 16.4% in 2019/21 in the country. The deprivations in all 10 MPI indicators saw significant reductions as a result of which the MPI value and incidence of poverty more than halved.
- As many as 41.5 crore people moved out of poverty in India during the 15-year period between 2005-06 and 2019-21 which has significantly contributed to decline in poverty in South Asia.
- Bihar, the poorest state in 2015-16, saw the fastest reduction in MPI value in absolute terms. The percentage of poor in Bihar fell from 77.4 % in 2005-06 to 52.4 % in 2015-16 and further to 34.7 % in 2019-21.
- In relative terms, the poorest states have not done well. Of the 10 poorest states in 2015/2016, only West Bengal has emerged out of the list in 2019-21.
- The rest (Bihar, Jharkhand, Meghalaya, Madhya Pradesh, Uttar Pradesh, Assam, Odisha, Chhattisgarh and Rajasthan) remain among the 10 poorest.
- Across states and union territories in India, the fastest reduction in relative terms was in Goa, followed by Jammu and Kashmir, Andhra Pradesh, Chhattisgarh and Rajasthan.
- The incidence of poverty fell from 36.6% in 2015-2016 to 21.2% in 2019-2021 in rural areas and from 9.0% to 5.5% in urban areas.
- Poverty among children fell faster in absolute terms, although India still has the highest number of poor children in the world. More than one in five children in India are poor compared with around one in seven adults.

# International Relations

## Putin's annexation of Ukrainian Land

**News:** Russia has just stepped up the war in Ukraine. Just a week after declaring a partial mobilization of its troops, Moscow has announced that it will annex four provinces in Ukraine. These moves indicate that the war in Ukraine is likely to drag on.

### Which provinces will be annexed?

- Russia has declared that it will annex four Ukrainian provinces: Donetsk, Luhansk, Zaporizhzhia and Kherson.
- This has occurred after Moscow held deeply controversial referendums in these regions.
- According to several reports it is alleged that Ukrainian citizens were likely coerced into voting by Russian troops. In total, Russia is claiming an estimated 109,000 square kilometres of Ukrainian territory which amounts to about 15%-20% of the country.

### Why such a move?

- By claiming territory as Russian land, Putin can justify an escalation in fighting as an attack on Russian soil. This may pause Ukraine and its Western backers.
- Fighting a war on what Moscow considers its territory may lead to a full scale conflict that may, according to some experts, lead to limited use of nuclear weapons.



### Impact on India:

- At the diplomatic level, it means that New Delhi is placed in a difficult spot on the global stage once again.
- India abstained on a vote for a draft resolution in the UN Security Council condemning Russia's actions. While India continues to call for dialogue and for respecting territorial integrity, Putin's annexation of Ukrainian land stands in direct contrast to India's stated stance on war.
- An increase in hostilities will dampen global growth prospects and spook the already troubled energy markets. It will hurt India's economic growth ambitions coming out of the pandemic.

## OPEC+ agree to deep cuts

**News:** OPEC+ countries led by Saudi Arabia agreed to its deepest cuts to production since the 2020 COVID pandemic, despite a tight market and opposition to cuts from the United States and others.

### Why cut in production?

- Oil prices skyrocketed after Russia's invasion of Ukraine and have since begun to soften over the past few months, before dropping sharply to under USD 90 in September, 2022 due to fears of a recession in Europe and reduced demands from China because of its lockdown measures.
- OPEC+ members are concerned that a faltering global economy would reduce the demand for oil, and the cuts are seen as a way to protect profits.
- It is possible that Russia might be influencing OPEC, to make it more expensive for the West to extend energy sanctions on Russia.

### Impact:

- Recently, the European Union had announced its plan to implement a price cap on oil exports from Russia. Under the plan, countries will only be permitted to purchase Russian oil and petroleum products

transported via sea that are sold at or below the price cap. However, the recent decision to reduce the supply is likely to keep the global oil prices high, allowing Russia to continue aiming for significant revenue from its crude export.

- The move will impact US more this time around which has repeatedly called to increase oil production. The US will soon have the midterm congressional election and Joe Biden wanted US gasoline prices to be low.

#### **Impact on India:**

- India imports nearly 85% of its crude requirement, the oil import bill will rise on account of the rise in prices. The rise in import bills will not only lead to inflation and a rise in the Current Account Deficit (CAD) and fiscal deficit but also weaken the rupee against the dollar and hurt stock market sentiment.
- India was “very confident” of navigating a planned output cut by the oil producers’ cartel, Opec Plus, Petroleum and Natural Gas Minister Hardeep Singh Puri has said.

#### **What is OPEC+?**

- Established in 1960 by founding members Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, OPEC has since expanded and now has 13 member states.
- Member countries - Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, Venezuela. **Qatar terminated its membership in January 2019.**
- With the addition of another 10 allied major oil-producing countries, the OPEC is known as OPEC+. OPEC+ countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.
- Its mandate is to manage the supply of oil, set the price of oil in the world market, and avoid fluctuations that might affect the economies of both producing and purchasing countries. Its membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.

## **India abstains from vote on UN resolution to Scrutinize Russia’s Rights Record**

**News:** India on Friday, October 7, abstained from voting on the UNHRC draft proposal favoring the appointment of an independent expert to step up scrutiny of Russia’s rights record at home as arbitrary arrests, a crackdown on dissenting voices and limits on free speech worsen during the war in Ukraine.

- The 47-member Human Rights Council passed the proposal with 24 abstentions.
- Shortly before the vote in Geneva, the Russian human rights group Memorial was named a co-winner of the 2022 Nobel Peace Prize.
- It is the first time the council has authorized a special rapporteur to look into human rights issues in any of the five countries that are permanent members of the UN Security Council.

#### **Why has India chosen to abstain on UN vote against Russia?**

- Russia had used its veto on several occasions to protect India against various resolutions when brought by the West on issues pertaining to Kashmir (in 1957 and 1962), India’s invasion of Goa, the 1971 war with Pakistan (Russia vetoed thrice protecting India’s effort to liberate Bangladesh) which led to the creation of Bangladesh.
- India has abstained on votes condemning the Soviet invasion of Czechoslovakia (1968) and for its invasion in Afghanistan.

#### **About UNHRC:**

- The Human Rights Council is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the world.
- The Council was created by the United Nations General Assembly in 2006. It replaced the former United Nations Commission on Human Rights.
- The Office of the High Commissioner for Human Rights (OHCHR) serves as the Secretariat of the Human Rights Council. (HQ – Geneva, Switzerland)

It is made up of 47 United Nations Member States which are elected by the UN General Assembly (UNGA).

## Korean Peninsula

**News:** North Korea has test-fired a pair of long-range strategic cruise missiles, with leader Kim Jong Un lauding another successful display of the country's tactical nuclear strike capability.

### About the conflict:

- The root of the conflict lies in the Japanese occupation of Korea between 1910- 1945.
- When Japan was defeated in the Second World War, the Allied forces agreed to establish a "four-power trusteeship over Korea" at the Yalta Conference (1945). Later, USSR invaded Korea and took control of the north and the south remained under the control of other allies, mainly the USA.
- The division of the two regions was along the 38th parallel north, which still continues to be the official border dividing the 2 countries.
- In 1948, South Korea and North Korea were established.
- As both tried to enhance their reach, territorially and ideologically, the Korean Conflict emerged between the two nations.

### About Korean war and India's role in Peace talks:

- In June 1950, North Korea backed by USSR attacked South Korea and occupied major territory of the latter. However, the UN force led by USA retaliated and the US forces crossed the 38<sup>th</sup> parallel which ensured China entered the game too by coming in support of North Korea.
- To prevent any further escalation peace talks began in 1951 and India played an active role by coordinating with all major stakeholders.
- On 27th July 1953, the Korean Armistice Agreement was signed between the UN Command, the Korean People's Army and the Chinese People's Volunteer Army. It led to an official ceasefire without a Peace treaty.
- It also led to the establishment of the Korean Demilitarized Zone (DMZ) which is a strip of land running across the Korean Peninsula to serve as a buffer zone between North Korea and South Korea.

### India's stand:

- India has consistently voiced its opposition to North Korean nuclear and missile tests. However, it has maintained a neutral stance regarding sanctions.
- Earlier, during the Korean War (1950- 53), India played a major role in a cease-fire agreement signed between both the warring sides.
- India maintains bilateral partnership with South Korea and recently upgraded it to 'special strategic partnership'.
- At the same time, India has diplomatic relations with North Korea as well.



**Note – From prelims perspective, you must know about 38<sup>th</sup> parallel, physical features in the region. Do map work on the same.**

## Fatalities among UNPKF on the rise

**News:** According to the United Nations Undersecretary General, the number of fatalities among United Nations Peacekeeping Forces (UNPKF) in direct attacks is growing.

### About:

- When the UN Security Council approved the deployment of UN military observers to the Middle East in 1948, the UN Peacekeeping Forces were established.

- UN peacekeeping forces help nations in negotiating in transition phase from war to peace.
- To carry out several missions approved by the UN Security Council (UNSC) and the UN General Assembly, it deploys soldiers and police from all over the world and combines them with civilian peacekeepers.

**India's role:**

- India is among the nations that send the most troops to the United Nations Peacekeeping Forces. For example, India is the second-highest military and fifth-highest police contributing country to the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO).
- Over 2,60,000 Indians have served in different peace keeping missions since 1948 and in 2007, India became the first country to deploy an all-women contingent to a UN Peacekeeping mission.
- In the last six decades, 179 Indian soldiers have died in UN Peacekeeping operations.

**What points were recommended by India to address recent challenges?**

- Peacekeeping missions should be given "clear and realistic mandates" that are matched with adequate resources.
- To accomplish the objectives of operations, the leadership of a peacekeeping force must build confidence and ensure efficient cooperation with the host state.
- Countries participating in peacekeeping missions must determine the agenda, not the Security Council.
- There should be "all-out efforts to bring the perpetrators of crimes against peacekeepers to justice.
- The host government has the primary responsibility to protect civilians from non-state groups across its territory.
- Peacekeeping missions should factor in an "exit strategy from their very inception.
- Using cutting-edge technology in peacekeeping operations can help overcome security issues.
- The military, civilians, and mission leadership should all be considered while evaluating a mission.



# General Studies – 3

## **Economic Development**

1. Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.
2. Inclusive growth and issues arising from it.
3. Government Budgeting.
4. Major crops-cropping patterns in various parts of the country, - different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.
5. Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.
6. Food processing and related industries in India- scope' and significance, location, upstream and downstream requirements, supply chain management.
7. Land reforms in India.
8. Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
9. Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
10. Investment models.

## **Technology**

11. Science and Technology- developments and their applications and effects in everyday life.
12. Achievements of Indians in science & technology; indigenization of technology and developing new technology.
13. Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

## **Environment & Bio-diversity**

14. Conservation, environmental pollution and degradation, environmental impact assessment.

## **Disaster Management & Security**

15. Disaster and disaster management.
16. Linkages between development and spread of extremism.
17. Role of external state and non-state actors in creating challenges to internal security.
18. Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.
19. Security challenges and their management in border areas - linkages of organized crime with terrorism.
20. Various Security forces and agencies and their mandate.

# Economic Development

## Small savings scheme

**News:** The Government of India has hiked interest rates on some of the Small Savings Schemes (2-year and 3-year Time Deposits, Senior Citizens Savings Scheme and Kisan Vikas Patra) for October-December 2022.

### What are small saving schemes?

- They are set of savings instruments managed by the central government with main purpose to encourage citizens to save regularly irrespective of their age.
- They are popular amongst investors owing to following reasons – they provide higher returns as compared to fixed deposits, are backed with government guarantee and tax benefits.
- The deposits received under various savings schemes are pooled under the National small savings fund. The money is used by the government to finance its fiscal deficit.

### How are rates determined?

- Interest rates on small savings schemes are reset on a quarterly basis, in line with the movement in benchmark government bonds of similar maturity. The rates are reviewed periodically by the Ministry of Finance.
- The **Shyamala Gopinath panel** (2010) constituted on the Small Saving Scheme had suggested a market-linked interest rate system for small savings schemes.

### Classification of various Small saving schemes:

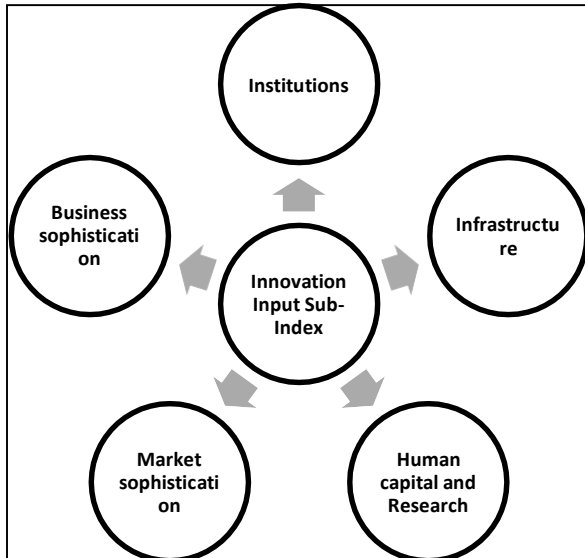
- **Kisan Vikas Patra (KVP)** - It is a saving certificate scheme that was launched to encourage **long-term financial discipline**. The scheme was closed in 2011 by the Government of India after a Government Committee suggested that this scheme can be misused for money laundering purposes. The Kisan Vikas Patra (KVP) **was later relaunched** in the **year 2014**. According to the 2014 amendment of Kisan Vikas Patra, the scheme provides a **tenure period of 118 months** with a **minimum** investment of **Rs. 1000**.
- **National Savings Certificate (NSC)** - A fixed-income instrument like Public Provident Fund and Post Office FDs, this scheme too is a **low-risk fixed-income** product. NSC comes with a fixed maturity period of **five years**. There is **no maximum limit** on the purchase of NSCs, but only investments of up to Rs.1.5 lakh can earn you a tax break under Section 80C of the Income Tax Act. The certificates earn a **fixed interest**, which is currently at a rate of 6.8% per annum. The interest rate is revised on a regular basis by the government.
- **Public Provident Fund (PPF)** - Individuals can open a PPF account at banks or at post offices. Earlier, opening a PPF account was allowed only at Nationalized Banks, however, some private banks also offer the PPF scheme. A minimum amount of Rs. 500 is needed and maximum investment is Rs. 1.5 Lakh for every financial year. Tenure is 15 years, deposits in PPF account have to be made once every year and you can also avail loan against your PPF during the third and sixth year of your contribution. The current PPF rate is 7.1 % and is compounded on an annual basis.
- **Post office deposits** such as Savings deposits, Recurring deposits and time deposits with 1,2, 3 and 5 year maturities.
- **Sukanya Samridhi Yojana** – Launched exclusively for Girl child. The account can be opened in the name of a girl child below the age of 10 years. The scheme guarantees a return of 7.6% per annum and is eligible for tax benefit.

## Global Innovation Index

**News:** The World Intellectual Property Organization (WIPO) recently released the Global Innovation Index (GII) 2022 where India was ranked 40<sup>th</sup> out of 132 countries. India's rankings have improved considerably over the past few years (46<sup>th</sup> in 2021, 81<sup>st</sup> in 2015).

## About:

- The Global Innovation Index (GII) is an annual ranking of countries by their capacity for, and success in, innovation.
- It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organizations and institutions, and is based on both subjective and objective data derived from several sources, including the International Telecommunication Union, the World Bank and the World Economic Forum.



- The overall GII score is the simple average of the **Innovation Input** and **Output Sub-Index** scores. Both input and output scores are governed by a **few pillars**.

- The **Innovation Output Sub-Index** provides information about outputs that are the results of innovative activities within the economy. There are two output pillars - **Knowledge and technology** outputs and **Creative outputs**.

- The Innovation Efficiency Ratio is the ratio of the Output Sub-Index score over the Input Sub-Index score. It shows how much innovation output a given country is getting for its inputs.

### Key Highlights:

- The Global Innovation Index has been a leading reference for

measuring an economy's innovation performance.

- India is the innovation leader in the lower middle-income group. It continues to lead the world in ICT services exports and holds top rankings in other indicators, including venture capital receipt value, finance for startups and scale-ups, graduates in science and engineering, labor productivity growth and domestic industry diversification.
- Switzerland is the most innovative economy in the world in 2022 for the 12th year in a row followed by the United States, Sweden, the United Kingdom and the Netherlands. China is nearing the top 10 while Türkiye and India enter the top 40 for the first time.
- This edition's **thematic focus is on the future of innovation-driven growth** provides a stance on whether stagnation and low productivity growth are here to stay, or whether we are about to enter a new era, where new innovation spurts the Digital Age and the Deep Science Innovation waves bring about an economic uplift.



## Inflation Targeting

**News:** The Centre, under section 45ZA of the RBI Act, 1934, has fixed the CPI inflation target at 4% with an 'upper tolerance limit' of 6%.

- However, actual year on year inflation in 2022 has ruled above 6% every single month from January to August.
- If it does so in September as well, **the RBI**, under section 45ZN of the same law, **will have to submit a report** to the centre on **'the reasons for failure to achieve the inflation target'** and **'remedial actions proposed to be taken by the bank'**.
- Failure here is defined as **inflation being more than the upper tolerance level of the target 'for any 3 consecutive quarters'**

### About Inflation Targeting framework:

- Price stability is a necessary precondition for macroeconomic and financial stability. Thus, price stability remains the dominant objective of the monetary policy.
- Under Inflation Targeting Framework, the central bank specifies an inflation rate as a goal and adjusts its monetary policy to achieve the specified annual inflation rate.
- Based on the **Urjit Patel committee recommendation** (2014), Government of India and RBI also signed the Monetary Policy Framework Agreement in 2015.
- The RBI Act, 1934 was amended in 2016 to make inflation targeting the nominal anchor of RBI's monetary policy and to establish a monetary policy committee (MPC).

### What is MPC?

- MPC is a six-member body to set the policy rate (repo rate) to achieve the inflation target while keeping in mind growth objectives.
- **Composition** - 3 internal members of RBI (including RBI Governor as Chairman) and 3 external members appointed by government.
- The MPC is required to meet **at least 4 times** in a year.
- **Quorum** – At least **4 members** need to be present for the meeting.
- **Decision making** - **One vote** of each member with RBI Governor having a second or casting vote in case of equality of votes.

### What are the advantages of Inflation Targeting?

- **Transparency**
  - It ensures transparency as CPI numbers are released every 12 days.
  - Inflation is well understood by the people in simple and easy terms and thus even public can form perception about RBI's work.
- **Credibility of objectives**
  - No one can put pressure on RBI to change monetary policy as its aim is to control inflation.
  - A single minded objective is likely to bring more likelihood of success.
- **Global acceptance**
  - Inflation targeting is part of many central bank's policies since late 20<sup>th</sup> century.
- **Predictable Policy Framework**
  - With price stability as unambiguous and sustainable goal, the policy becomes more predictable.
- **Reduced inflation volatility** and **reduced impact of shocks** as central banks try and work in tandem with ongoing world realities.

### What are the recent developments in India as far as inflation is concerned? Has the Inflation targeting framework actually worked?

- During Narendra Modi government's first term, roughly from April 2014 to March 2019 (Modi 1.0), **CPI inflation was above 6% only in 6 out of 60 months**. 5 of those 6 months were in 2014 before the RBI act was amended.
- However, in **41 months since April 2019** (Modi 2.0), **inflation has exceeded 6% in as many as 21 months**. In other words, a failure rate of over 50%, as against 10% during Modi 1.0.
- Also, **average CPI inflation was 4.5% during Modi 1.0, whereas it has been 5.7% so far in Modi 2.0**. (Make note of this data)

### Why has RBI failed to adhere to inflation-targeting mandate?

- **Food and beverage** items with a combined weight of **45.86%** in the overall CPI has been main cause of overall rise in inflation. During Modi 1.0, food inflation was lower than general inflation in 38 out of 60 months. However, in Modi 2.0, the average consumer food price inflation (CFPI) index at 6.3% is more than 5.7% for general inflation.
- The **preponderant weight of food items** in the Indian consumption basket and hence its CPI – in contrast to developed countries where their shares are hardly 10-25% - makes inflation **much less amenable** to control through **repo interest rate** or **cash reserve ratio** hikes. Therefore, the **RBI is forced to rely on government action to meet inflation target**.

- Thus the RBI has to rely more on **supply side measures** by the government. This effectively translates into monetary dependence, not independence. Recent supply side measures taken by the government to tame inflation include – **ban of export of wheat, exports of broken rice was prohibited and bringing down effective duty on crude and refined palm oil** to name a few.
- **Other factors** such as **war in Ukraine**, pandemic and **extreme weather events** such as **heat wave** in March April, **excess rains** during September-January 2021-22 and **deficient monsoon** in some parts of the country along with **skyrocketing prices of fuel** (6.85% weight in CPI) have rendered the **RBI's demand-side** toolkit to **fight inflation ineffective**.

#### Way Forward:

- **Pre-emptive** monetary policy action to reinforce credibility of monetary policy intent and action to fight supply-side inflation and contain the negative impact on growth.
- **Use of different inflation targets** to serve different classes. For example, lower inflation (3-4%) tolerance on food items or staples consumed by the poor to kick start policy action can make it more beneficial for all classes.

## Digital Services Act

**News:** The European Union (EU) has given final approval to online safety-focused legislation called Digital Services Act (DSA), which is an overhaul of the region's social media and e-commerce rules.

#### About:

- As defined by the EU Commission, the DSA is 'a set of common rules on intermediaries' obligations and accountability across the single market', and ensures higher protection to all EU users, irrespective of their country.
- It aims to tightly regulate the way intermediaries (google, Facebook) function when it pertains to moderating user content.

#### Features of DSA:

- It avoids one size fits all approach. For example, 'Very Large Online Platforms' (VLOPs) and 'Very Large Online Search Engines' (VLOSEs), that is platforms, having more than 45 million users in the EU, will have more stringent requirements compared to its compatriots. Thus, increased accountability on big tech companies.
- The European Commission will be responsible for centrally supervising these requirements and their enforcement.
- New procedures to be added to ensure faster removal of content deemed illegal or harmful. It will empower users of social media platforms to challenge takedown decisions (content) taken by platforms and seek out-of-court settlements'.
- VLOPs and VLOSEs will face transparency measures and scrutiny of how their algorithms work.
- Online platforms must ensure that users can easily identify advertisements and understand who presents or pays for the advertisement. They must not display personalized advertising directed towards minors or based on sensitive personal data.

#### What about India? Where do we stand in context of EU's DSA?

- In February 2021, India had notified extensive changes to its social media regulations in the form of the Information Technology Rules, 2021 (IT Rules) which placed significant due diligence requirements on large social media platforms such as Facebook and Twitter.
- For example, appointing key personnel to handle law enforcement requests and user grievances, enabling identification of the first originator of information on its platforms under certain conditions.



## 'Make in India' Completes 8 years

**News:** Make in India, the flagship program of the Government of India that aspires to facilitate investment, foster innovation, enhance skill development, and build best-in-class manufacturing infrastructure, completed 8 years of path-breaking reforms on 25th September 2022.

### About:

- Launched in 2014 under the dynamic leadership of the Hon'ble Prime Minister Shri Narendra Modi, 'Make in India' is transforming the country into a **leading global manufacturing and investment destination**.
- The initiative is an open invitation to potential investors and partners across the globe to participate in the growth story of 'New India'.
- Make in India has substantial accomplishments **across 27 sectors**. These include **strategic** sectors of **manufacturing** and **services** as well.

### What steps have been taken by government?

- **Liberal and Transparent FDI policy**
  - To attract Foreign investments, the government has ensured most sectors are open to FDI under the automatic rule.
  - FDI inflows in India stood at **US \$ 45.15 billion in 2014-2015** and have since consecutively reached record FDI inflows for eight years.
  - The year **2021-22** recorded the **highest ever FDI at \$83.6 billion**. This FDI has come from **101 countries**. India is now on track to attract US\$ 100 Billion FDI in the current FY.
- **Production Linked Incentive (PLI) Scheme**
  - PLI scheme across **14 key manufacturing** sectors, was launched in 2020-21 as a big boost to Make in India initiative.
  - The PLI Scheme **incentivizes domestic production** in strategic growth sectors where **India has comparative advantage**. This includes strengthening domestic manufacturing, forming resilient supply chains, making Indian industries more competitive and boosting the export potential.
  - PLI Scheme is expected to generate significant gains for production and employment, with benefits extending to the MSME eco-system.
- **One District One Product (ODOP) initiative**
  - This initiative is another manifestation of the 'Make in India' vision for facilitating promotion and production of the **indigenous products** from **each district of the country** and providing a **global platform** to the **artisans** and **manufacturers of handloom, handicrafts, textiles, agricultural and processed products**, thereby further contributing to the socio-economic growth of various regions of the country.
- **National Single Window System (NSWS)**
  - NSWS has been soft-launched in September 2021 to improve the ease-of-doing-business by providing a **single digital platform** to investors for approvals and clearances.
  - This portal has **integrated multiple existing clearance systems** of the various Ministries/Departments of Government of India and State Governments to enhance the investor experience.
- **Focus on Toy Industry**
  - The industry has been traditionally import dependent and substandard quality of toys were being imported which were unsafe, cheap.
  - Prime Minister Modi in one of his 'Mann ki Baat' programme expressed his desire to establish India as a global toy manufacturing hub. Subsequently, efforts by government such increasing basic custom duty from 20% to 60%, implementation of quality control order, mandatory sample testing of imported toys, granting of over 800 BIS licenses to domestic toy manufacturers and development of toy clusters led to substantial benefits to our own Toy industry.
  - The **import of toys** in FY21-22 **have reduced by 70%** to USD 110 Million (Rs. 877.8 cr.). There has also been a distinct improvement in quality of toys in domestic market. Simultaneously, the efforts of the industry have led to an export of 326 Millon USD (Rs. 2601.5 cr.) of toys in FY21-22, which is an **increase of over 61%** over 202 Million USD (Rs. 1612 cr.) of FY18-19.

- **PM Gati Shakti Scheme**
  - The Government also launched PM Gati Shakti for multimodal connectivity to manufacturing zones in the country, which will ensure **logistical efficiency** in business operations through the creation of infrastructure that **improves connectivity**.
- **Several other initiatives include**
  - **Burdensome compliances** to rules and regulations have been reduced through simplification, rationalization, decriminalization, and digitization, making it easier to do business in India.
  - **Labor reforms** have brought flexibility in hiring and retrenchment.
  - **Quality control orders** have been introduced to ensure quality in local manufacturing.
  - **Reduction** in corporate taxes, **public procurement** orders and **Phased Manufacturing Programme**.

## Sustainable Finance

**News:** The GIFT City had constituted a committee to file a report on sustainable finance. The committee suggested development of Carbon market among other things.

### What is Sustainable Finance?

- Sustainable finance is defined as investment decisions that take into account the environmental, social, and governance (ESG) factors of an economic activity or project.

### Key Recommendations:

- The committee was exploring ways in which capital flows through IFSC can be enhanced and support the development of innovative financial products in the area of green and sustainable finance.
- Developing a voluntary carbon market, framework for transition bonds, enabling de-risking mechanisms, promoting regulatory sandbox for green fintech and facilitating the creation of a global climate alliance among others.
- Setting up of a dedicated MSME platform for sustainable lending.
- Facilitating the use of innovative instruments such as catastrophe bonds, municipal bonds, green securitization, blended finance among others.
- The committee emphasized on important role of IFSCA in capacity building to lay foundation for greening the financial system.

### Importance of Sustainable Finance Planning:

- Sustainable Green Products are used to raise money to finance new or refinance existing green projects or activities that contribute to safe and secure environment.
- The money raised must be used for environmental and social benefits such as greenhouse gas emission reductions, clean energy and biodiversity conservation.
- The issuance of sovereign green bonds through IFSC would further validate the green bond market, leading to stronger bids, larger order books, increased pricing leverage and a higher quality investor's base.

### About IFSCA:

- The IFSCA was established in 2020 under the International Financial Services Centres Authority Act, 2019.
- It is headquartered at GIFT (Gujarat International. Finance Tec-City) City, Gandhinagar in Gujarat.
- The IFSCA is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre.
- The International Financial Services Centre(IFSC) caters to customers outside the jurisdiction of the domestic economy. Such centres deal with flows of finance, financial products and services across borders.

### Members of IFSCA:

- It consists of **9 members** who are appointed by **Central Government**.

- They include the chairperson of the authority (currently Injeti Srinivas), a member each from the RBI, SEBI, the IRDAI, and the PFRDA, and two members from the Ministry of Finance. In addition, two other members are appointed on the recommendation of a Selection Committee.
- All members of the IFSCA have a term of **three years**, subject to reappointment.

## How China beat extreme poverty?

### Background:

- According to the latest **World Bank report on global poverty**, India has the most number of poor people. The report found that the number of Indians living in extreme poverty - surviving on less than Rs 46 a day increased by 5.6 crore in 2020.
- Further, it states that close to 600 million Indians survive on less than Rs 84 a day.
- China, comparable in population size, alleviated poverty at historically unprecedented speed and scale between 1978 and 2018.

### What did China achieve?

- Between 1978 and 2018, China's poverty headcount dropped from 770 million to 5.5 million people. It translates to, for 40 years on trot, every year China pulled 19 million people out of extreme poverty.
- In 2021, China declared that it has eradicated extreme poverty according to the national poverty threshold and that it has built a moderately prosperous society in all respects.

### How did China do it?

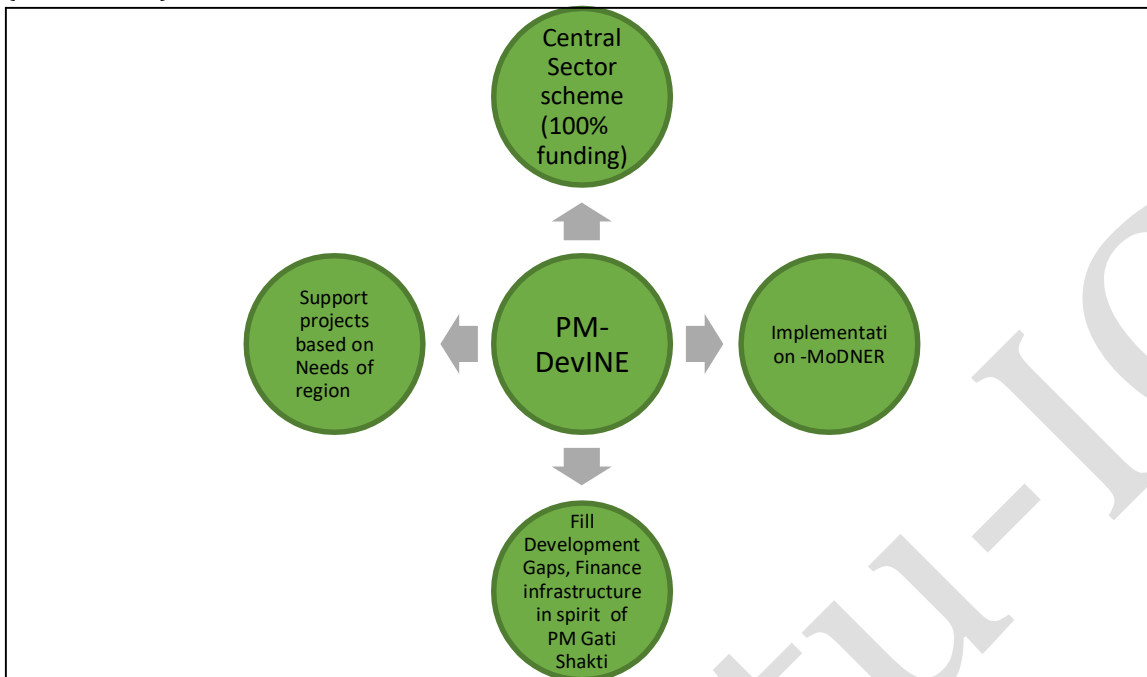
- **Rapid Economic Growth supported by broad-based economic transformation**
  - Reforms in agriculture, where poor people could benefit directly from improvements in productivity associated with the introduction of market incentives.
  - Focus on development of low-skilled labor intensive industries provided a source of employment for workers released from agriculture.
  - Their policies ensured that Urbanization of China was a boon for those who looked for jobs outside rural areas and absorbed excess population.
  - Public investment in infrastructure improved living conditions in rural areas but also connected them with urban and export markets.
- **Government policies to alleviate poverty**
  - Initially targeted at areas disadvantaged by geography and a lack of economic opportunities, but subsequently focused on poor households irrespective of location.
- China's success **benefited from effective governance**, "which was key to the successful implementation of the growth strategy as well as the evolving set of targeted poverty reduction policies." As quoted by World Bank.
- **Massive investment in education and expansion of health care** since the 1950s resulted in real achievements; in 1978, the infant mortality rate was 52 per 1000 births, less than half of the average in China's income group; life expectancy at birth at 66 years far exceeded that of other developing countries, and the secondary school enrollment rate was 49.9 per cent. Thus, relatively high level of human capital endowments benefited China's success.

### What can India learn?

- Effective governance is the key. Decentralized implementation programmes, giving considerable importance to local experimentation can benefit in the long run.
- Area-based approach, targeting poor regions and villages as a whole, to a set of interventions targeted at poor households.
- Social protection policies for poor households and included specific programs in social assistance, social insurance, social welfare, and other targeted social policies
- Increase investment in healthcare and education.

## PM-DevINE

**News:** The Union Cabinet approved a new Scheme, Prime Minister's Development Initiative for North East Region (PM-DevINE)



### Significance of NER:

- Gateway to South-East Asian countries and beyond that. India's Act East policy places N-E states on the territorial frontier of India's eastward engagement.
- The region is rich in natural resources like Tea, Timber and Oil. Beyond that it is home to huge hydroelectric power potential (close to 50,000 MW)
- It is a part of Indo-Burma biodiversity hotspot. It represents one of the highest avian and plant biodiversity of the Indian subcontinent.
- Culturally it is one of the most diverse regions of the world. It is home to more than 200 tribes, rich presence of diverse species, home to sacred groves and diverse festivals showcase the rich heritage the region has for it to showcase.

### Challenges:

- Poor accessibility to the region due to gaps in connectivity, infrastructure, topography and underdeveloped transport links.
- North-East India has remained historically underdeveloped in terms of industrial growth.
- There are existing inter-state and international territorial conflicts within the Northeast that are often based on historical border disputes and differing ethnic, tribal or cultural affinities.
- The North-Eastern states have witnessed a rise of insurgent activities and regional movements with a feeling of exploitation and alienation from other Indian states.

## Pilot launch of e-Rupee

**News:** On Friday, the Reserve Bank of India (RBI) indicated that it will soon commence limited pilot launches of e-rupee (ex), or Central Bank Digital Currency (CBDC) or digital rupee, for specific use cases.

### What is RBI's plan?

- The central bank said that the development of CBDC could provide the public a **risk-free virtual currency** that will give them legitimate benefits without the risks of dealing in private virtual currencies.

- The approach for issuance of CBDC will be governed by two basic considerations - to create a digital rupee that is as close as possible to a paper currency and to manage the process of introducing digital rupee in a seamless manner.
- The central bank also feels that it is desirable for CBDCs to have offline capabilities to make it a more attractive and accessible medium of payment for a wide category of users.
- E-rupee is the same as a fiat currency and is exchangeable. one-to-one with the fiat currency. Only its form is different.
- It can be **accepted as a medium of payment, legal tender and a safe store of value.**
- The digital rupee **would appear as liability** on a central bank's balance sheet.

#### What are the types of e-Rupee?

- Based on the usage and the functions performed by the digital rupee and considering the different levels of accessibility, CBDC can be demarcated into two broad categories - general purpose (retail) (CBDC-R) and wholesale (CBDC- W), the RBI's concept note says.
- Retail CBDC is an **electronic version of cash** primarily meant for retail transactions. It will be potentially available for use by all private sector, non-financial consumers and businesses-and can provide access to safe money for payment and settlement as it is a direct liability of the central bank.
- Wholesale CBDC is designed for **restricted access** to select financial institutions. It has the **potential to transform** the settlement systems for financial transactions undertaken by banks in the **government securities (G-Sec) segment, inter- bank market and capital market** more efficiently and securely in terms of operational costs, use of collateral and liquidity management.

#### What are the forms of CBDC?

- The central bank says e-rupee, or CBDC, can be structured as **token-based** or **account-based**.
- A token-based CBDC would be a **bearer instrument like banknotes**, meaning whosoever holds the tokens at a given point in time would be presumed to own them. In a token-based CBDC, the person receiving a token will verify that his ownership of the token is genuine. A token-based CBDC is viewed as a preferred mode for CBDC-R as it would be closer to physical cash.
- An account-based system **would require maintenance of record of balances and transactions of all holders** of the CBDC and indicate the ownership of the monetary balances. In this case, **an intermediary will verify** the identity of an account holder.

#### What is the model of issuance?

- There are two models for issuance and management of CBDCs under the RBI's consideration - **direct model (single tier model) and indirect model (two tier model).**
- In the **direct model**, the **central bank will be responsible for managing all aspects of the digital rupee system** such as issuance, account-keeping and transaction verification.
- An **indirect model** would be one where **the central bank and other intermediaries** (banks and any other service providers), **each play their respective role.** In this model, the central bank will issue CBDC to consumers indirectly through intermediaries and any claim by consumers will be managed by the intermediary.

#### What are the advantages of Wholesale CBDC e-rupee?

- The RBI said the key motivations for exploring the issuance of CBDC in India among others include **reduction in operational costs** involved in physical cash management, **fostering financial inclusion**, bringing resilience, efficiency and innovation in the payments system.
- It will add **efficiency to the settlement system** and **boost innovation in cross border payments** space and provide the public with uses that any private virtual currencies can provide, without the associated risks.

#### Can e-rupee be transacted in offline mode?

- The offline functionality as an option will allow CBDC to be transacted without the internet and thus enable access in regions with poor or no internet connectivity. It will also create digital footprints of the unbanked population in the financial system, which will facilitate the easy availability of credit to them.
- However, the RBI feels in the offline mode, the **risk of 'double spending'** will exist because it will be technically possible to use a CBDC unit more than once without updating the common ledger of CBDC.



- But it **can be mitigated** to a larger extent by technical solutions and appropriate business rules including monetary limits on offline transactions.

## World Economic Outlook

**News:** The **IMF** released its latest report titled World Economic Outlook 2022.

### Key Details you must know:

- As far as India is concerned the IMF cut its forecast for India's GDP growth in 2022 to 6.8%, from 7.4% for India in the fiscal year that started in April 2022.
- It projects India to grow to at 6.1% in 2023.
- Considering Global growth forecasts, the IMF predicts a gloomy picture. Global growth is forecast to slow from 6.0 percent in 2021 to 3.2 percent in 2022 and 2.7 percent in 2023. This is the weakest growth profile since 2001 except for the global financial crisis and the acute phase of the COVID-19 pandemic.
- Global inflation is forecast to rise from 4.7 percent in 2021 to 8.8 percent in 2022 but to decline to 6.5 percent in 2023 and to 4.1 percent by 2024.

### Key Recommendations:

- **Monetary policy** should stay the course to **restore price stability**, and fiscal policy should aim to alleviate the cost-of-living pressures while maintaining a sufficiently tight stance aligned with monetary policy.
- **Structural reforms** can further support the fight against inflation by improving productivity and easing supply constraints, while **multilateral cooperation is necessary for fast-tracking the green energy transition** and preventing fragmentation.
- As the cost of living continues to rise, policymakers will need to **protect the most vulnerable members of society** from the impact of higher prices.

### Some of the recommendations made by IMF to India:

- Although the IMF has downgraded India's growth forecast to 6.1% for the next fiscal year (2023-24), it has maintained that India "is still a bright spot" for economic growth.
- The IMF recommends India to follow a Tight monetary policy.
- To implement structural reforms especially in the manufacturing sector, doing away with rigid labor laws.
- Contain a high level of debt and provide government fiscal support in a targeted and time-bound manner.

### What is the other report released by IMF?

- Global Financial Stability Report

## Banks seek exemption from RTI

**News:** The Supreme court recently agreed to examine a plea by various Banks for the exemption from Right to Information (RTI) Act.

- Various Public and Private Sector banks want to be exempted from disclosing an array of financial information relating to Non-Performing Assets (NPAs), losses from trading operations, show-cause notices, and penalties.

### Background:

- The legal battle for the disclosure of inspection reports and defaulters list started when RTI activist Jayantilal Mistry sought information under RTI Act, 2005 from the RBI about a Gujarat-based cooperative bank in 2010. However, the matter was not paid heed according to several RTI processes and thus went to the Supreme court.
- The Supreme Court had come down on the RBI for trying to keep the inspection reports and defaulters list confidential thereby ensuring that public disclosure of such reports of the RBI be made, much against the wishes of the banking sector. The SC said that the RBI was duty-bound to uphold the public interest by revealing these details under RTI.
- The RBI later allowed for reports to be made public following the orders from the SC.

- At present, the SC said that the 2015 judgement did not consider the aspect of balancing the right to information and right to privacy and therefore it is necessary for courts to give a chance to banks to explain their case.

#### Views of the Banking sector:

- The banks fear that adverse remarks coming from the Central bank will have negative impact on the image of the banks, keep customers away and also affect its performance.
- Banks are driven by the “trust and faith” of their clients that should not be made public.
- Banks stated that privacy is a fundamental right, and therefore, should not be violated by making clients’ information public.

## PM Kisan Samman Sammellan 2022

**News:** Prime Minister Shri Narendra Modi recently inaugurated the PM Kisan Samman Sammellan 2022 at Indian Agricultural Research Institute in New Delhi.

#### About PM Kisan Scheme:

- The scheme was launched in November 2018 to help needs of landholding farmers. Financial benefit worth INR 6,000 per year (in 3 equal installments) are transferred directly into the bank accounts of farmer families across the country through DBT mode.
- Initially restricted to Small and Marginal Farmers (SMFs) having landholding upto 2 hectares but it was later extended to cover all landholding farmers.
- It is a Central Sector Scheme with 100% funding from the Government of India and is implemented by the Ministry of Agriculture and Farmers Welfare.

#### What are exclusion criteria?

- The following categories of beneficiaries of higher economic status shall not be eligible for benefit under the scheme.
- All Institutional Land holders.
- Farmer families which belong to one or more of the following categories:
  - Former and present holders of constitutional posts
  - Former and present Ministers/ State Ministers and former/present Members of Lok Sabha/ Rajya Sabha/ State Legislative Assemblies/ State Legislative Councils, former and present Mayors of Municipal Corporations, former and present Chairpersons of District Panchayats.
  - All serving or retired officers and employees of Central/ State Government Ministries /Offices/Departments and its field units Central or State PSEs and Attached offices /Autonomous Institutions under Government as well as regular employees of the Local Bodies (Excluding Multi-Tasking Staff /Class IV/Group D employees)
  - All superannuated/retired pensioners whose monthly pension is Rs. 10,000/-or more (Excluding Multi-Tasking Staff / Class IV/Group D employees) of above category
  - All Persons who paid Income Tax in last assessment year
  - Professionals like Doctors, Engineers, Lawyers, Chartered Accountants, and Architects registered with Professional bodies and carrying out profession by undertaking practices.

#### Key Highlights of PM Kisan Samman Sammellan:

- PM released the **12th installment** of PM-KISAN funds. Rs 16,000 crores were transferred to over 8.5 crore eligible farmers as part of the scheme.
- PM also inaugurated **600 ‘Pradhan Mantri Kisan Samruddhi Kendras’** (PMKSK) under the **Ministry of Chemicals & Fertilizers**. Under this scheme, more than 3.3 lakh retail fertilizer shops in the country will be converted into PMKSK in a phased manner. They will cater to **several farmer needs** like providing **agri-inputs** (fertilizers, seeds, implements); **testing facilities** for soil, seeds, fertilizers; generating awareness among farmers; providing information regarding various government schemes and ensuring regular capacity building of retailers at block/ district level outlets.

- The PM also launched the ‘Pradhan Mantri Bhartiya Jan Urvarak Pariyojana’ – One Nation, One Fertilizer. Under this scheme, ‘Bharat Urea Bags’ are launched. These will help companies market fertilizers under the single brand name “Bharat”.
- An e-magazine on fertilizer, ‘Indian Edge’ also launched by the PM. It will provide information on **domestic and international fertilizer scenarios**, including recent developments, price trends analysis, availability and consumption, success stories of farmers, among others.

**Note – For GPSC prelims, remember names of such e-magazine. They do have tendency to ask questions from such minute details in current affairs part.**

## Old Pension Scheme Vs New Pension Scheme

**News:** Punjab (after Chhattisgarh and Rajasthan) has become the latest State that has announced its plan to revert to the Old Pension Scheme (OPS) rather than to apply the New Pension system which has attracted several criticisms around the country.

**About:**

### Old Pension Scheme

- In the OPS, upon retirement, employees receive 50 percent of their last drawn basic pay plus dearness allowance or their average earnings in the last ten months of service, whichever is more advantageous to them. A ten-year service requirement should be met by the employee.
- Under OPS, employees are not required to contribute to their pensions. An incentive for taking on government employment was the guarantee of a pension post-retirement and a family pension. Retirement corpus building was not pressured. OPS has become unsustainable for governments due to rises in life expectancy.

### New Pension Scheme

- In this NPS, those employed by the government contribute 10 percent of their basic salary to NPS, while their employers contribute up to 14 percent. Private sector employees can also participate in the NPS voluntarily, although some rules have changed.
- With NPS, the customer has much greater flexibility and has a greater sense of control over her fate. A professional pension fund manager can ensure that superior returns and a larger retirement corpus are achieved, regardless of equity or debt.

**What are issues with NPS?**

- The NPS is a corpus from which you can draw a pension after retirement. Its value is determined by the market prices in which the corpus is invested.
- One of the issues with the NPS is the amount of monthly pension you would draw (for the same contribution during service) with three hypothetical market rates of return is significantly lower for NPS.
- Secondly, it is dependent on the vagaries of the market prices of equity/bonds in which the corpus is invested. To be sure, the markets do not crash often and in the long run, they go up rather than down. If there is a crash, the downside has to be absorbed by the retirees.
- In contrast to defined benefit plans, NPS is a defined contribution plan. There is no doubt that the guaranteed payout feature in OPS is appealing if you do not have any appetite for risk.

**Why are governments switching to OPS?**

- The OPS is fixed government expenditure irrespective of an economic slowdown or a stock market crash, which makes it a good counter-cyclical policy measure during a crisis. In fact, the Sixth Pay Commission in India did precisely this during the Great Recession of 2008.

# Tokenisation



## What is Tokenisation?

- Tokenisation refers to the process of replacement of actual card details with a unique alternate code known as the 'token', which shall be unique for a combination of card, token requestor and identified device.
- The Reserve Bank of India (RBI) has permitted authorised card payment networks to offer card tokenisation services to consumers requesting it, in an effort to improve the safety and security of card transactions.
- According to RBI, no entity in the card transaction or the payment chain, other than the card issuers and/or card networks, are allowed to store the actual card data. Any such data stored previously will have to be purged.

## Advantages:

- Payments experts said that tokenisation was a necessary step due to the rapidly growing mobile payments in the country and major card companies actively pushing contactless payments.
- In the absence of tokenisation, customers enter the card information manually every time they transact online and this increases the chances of error in entering data leading to transaction failures.
- Tokenisation, as a technology solution, bridges this inconvenience gap and enables customers and businesses to sustain business as usual, by converting customer card information into a coded token.
- Tokenisation provides consumers added layer of security by converting sensitive cardholder data to a string of randomly generated numbers known as a token.
- No need for a physical card as one can have a virtual version of the card on their smartphone
- Tokens do not carry the consumer's primary account number, reducing the risk of storing tokens on mobile devices, online merchants, and in cloud-based mobile apps.
- Connected devices and risk-based authentication makes it easier to detect frauds. Tokenisation also makes it more difficult for hackers to gain access to cardholder data. Earlier, card numbers were stored in databases and exchanged freely over networks.

## How to request for Tokenisation facility?

- To enable tokenisation, a customer can use a third party (token requester) app such as the UPI app, a bank app or a mobile wallet app. At present, the facility shall be offered through mobile phones and tablets only.
- Customers cannot be charged for availing the tokenisation service and they will have the option to register or deregister their card for a particular purpose and also the option to set and modify per transaction and daily transaction limit.
- The customer shall be free to use any card registered with the token requester app for performing a transaction. Tokens tied to lost or stolen mobile devices can be instantly reissued — without the need to change the consumer's primary account number or reissue the plastic card.

## Direct Benefit Transfer Scheme

**News:** International Monetary Fund (IMF) lauded India's Direct Benefit Transfer (DBT) Scheme as a "logistical marvel" that has reached hundreds of millions of people and specifically benefitted women, the elderly and farmers.

### About:

- With the aim of reforming Government delivery system by re-engineering the existing process in welfare schemes for simpler and faster flow of information/funds and to ensure accurate targeting of the beneficiaries, de-duplication and reduction of fraud Direct Benefit Transfer (DBT) was started on 1st January, 2013.
- JAM trinity i.e. Jan Dhan, Aadhaar and Mobile are DBT enablers and as on date more than 22 crore Jan Dhan Account, more than 100 crore Aadhaar and about 100 crore Mobile connections provide a unique opportunity to implement DBT in all welfare schemes across country including States & UTs.
- DBT will bring efficiency, effectiveness, transparency and accountability in the Government system and infuse confidence of citizen in the governance. Use of modern technology and IT tools will realize the dream of MAXIMUM GOVERNANCE MINIMUM GOVERNMENT.

### What are the factors that contributed to its success?

- The government worked in a **mission-mode approach** to open bank accounts for all households, expanded Aadhaar to all, and scaled up the coverage of banking and telecom services.
- Through Inclusive financial sector system, the most marginalized sections of society have been uniquely linked to the formal financial network.
- Aadhaar-enabled Payment System and Unified Payment Interface further expanded interoperability and private-sector participation.
- An enabling policy regime, proactive government initiatives and supportive regulatory administration allowed the private and public sector entities in the financial sector to overcome longstanding challenges of exclusion of a large part of the population.

### How has DBT helped citizens in Rural and Urban India?

- Citizens have received financial assistance directly into their bank accounts by eliminating intermediaries. It has also lowered transaction costs for the government.
- Benefits from the DBT have become the backbone for supporting the growth of the agricultural economy by transferring money under the PM Kisan scheme, subsidy benefits to procure fertilizers, insurance/premium facility under the PM Fasal Bima Yojana.
- The benefits received under the Mahatma Gandhi National Rural Employment Guarantee Act and Public Distribution System has driven the rural demand-supply chain.
- PM Awas Yojana and LPG Pahal scheme successfully used DBT to transfer funds to eligible beneficiaries.
- The efficacy and robustness of the DBT network helped the government to reach the last mile and support the most deprived in bearing the brunt of the lockdown. From free rations to nearly 80 crore people under the Pradhan Mantri Garib Kalyan Yojana, fund transfers to all women Jan Dhan account holders and support to small vendors under PM-SVANidhi, DBT helped the vulnerable to withstand the shock of the pandemic.
- According to World Bank, India managed to provide food or cash support to a remarkable 85 per cent of rural households and 69 per cent of urban households through its DBT networks.

## EASE reforms

**News:** The government is looking to leverage the potential of Regional rural banks through the Enhanced access and service excellence (EASE) reforms as it looks to expand their portfolios by adding new segments.



**Key Highlights:**

- Rural banks will be asked to tap into segments such as loans for tractors, small businesses in rural areas and education and housing loans.
- The Center is working on a proposal to raise the guarantee limit for education loans from Rs 7.5 lakh to Rs 10 lakh to ensure banks restart lending to the education sector.
- The government's plan is to continue to improve the profitability of RRBs.

**How will it help?**

- It will help RRBs expand their business by leveraging their huge rural network and local understanding, and also enhance credit access to rural consumers for purposes such as education, housing and micro businesses.
- Increased credit availability to the education, housing and small businesses.
- RRBs will be guided towards becoming more competitive and customer friendly.
- The EASE programme for RRBs will entail focus on digitizing operations and connecting RRBs with each other.

**What are EASE reforms?**

- Launched in January 2018 jointly by the government and PSBs.
- It was commissioned through Indian Banks' Association and authored by Boston Consulting Group.
- It aims to foster new-age reforms in PSBs to improve profitability, asset quality, customer service and digital capabilities.
- So far 5 stages of EASE reforms have been undertaken with each stage contributing something unique.
- EASE 1.0 – It showed significant improvement in PSB performance in resolution of Non Performing Assets (NPAs).
- EASE 2.0 - Introduced new reform Action Points across six themes such as responsible banking, customer responsiveness, credit take-off, financial inclusion and digitalization, governance and HR, PSB's as UdyamiMitra.
- EASE 3.0 – Providing user friendly and ease of banking operations. For example, Dial-a-loan, PSBloansin59minutes, tech-enabled agricultural lending, credit@click.
- EASE 4.0 – Themes proposed under this were 24\*7 banking, bad bank, focus on North-east, leveraging use of Fintech sector.
- EASE 5.0 - PSBs will continue to invest in new-age capabilities and deepen the ongoing reforms to respond to evolving customer needs, changing competition and the technology environment.

# Science & Technology

## CNG Terminal at Bhavnagar

**News:** Prime Minister Narendra Modi laid the foundation stone for the “world’s first CNG (Compressed Natural Gas) terminal” at Bhavnagar in Gujarat recently.

### About:

- CNG, also known as compressed natural gas, is an eco-friendly alternative to gasoline.
- Made by compressing natural gas (methane) down to less than 1% of its volume, **CNG fuel is safer** than gasoline and diesel because it is **non-toxic** and **does not contaminate ground water**.
- This natural gas is the same gas that you use daily to heat your home and water, cook on the stove and even to dry your clothes in a dryer.
- The use of CNG fuel is becoming more popular with both commercial and non-commercial vehicles.

CNG	LPG
The primary use is as an alternative for fuel in automobiles.	Various uses such as heating and cooking in homes. It also serves in industrial and agricultural uses.
The primary component in CNG is Natural methane.	It involves mixture of propane and butane.
It is relatively safe as it disperses rapidly into the air.	It is highly flammable as it is much heavier than air.
It produces relatively lower quantities of greenhouse gases when compared with LPG.	It produces relatively large amounts of carbon dioxide, a greenhouse gas.
Less dense than liquid fuel.	More energy available in the same amount.
The primary source of obtaining CNG is from oil wells, bed methane wells, coal wells and even natural gas wells.	The main source of obtaining LPG is from the process of extracting natural gas from reservoirs.
Easily disperses, hence risk of ignition is minimized.	Since it is difficult to disperse risk of fire is more.

## Findings of Zhurong Rover on Mars

**News:** China’s Zhurong rover that landed on Mars in 2021 has found evidence of **major floods** that took place billions of years ago by studying underground layers.

### Key Findings:

- The rover studied its landing site Utopia Planitia which are vast plains in Mars’s northern hemisphere.
- These are the rover’s first results of the radar imager. Radio waves from the radar bounce off underground materials to reveal their grain size and ability to hold an electric charge. Stronger signals typically indicate larger objects.
- The radar did not find any evidence of liquid water down to 80 metres, but it did detect two horizontal layers with interesting patterns. In a layer between 10 and 30 metres deep, the reflection signals strengthened with increasing depth. An older, thicker layer between 30 and 80 metres down showed a similar pattern.
- The older layers (30 and 80 metres) are probably the result of rapid flooding that carried sediments to the region more than three billion years ago, when there was a lot of water activity on Mars.
- The upper layer (between 10 and 30 metres deep) could have been created by another flood some 1.6 billion years ago, when there was lots of glacial activity.
- Radar data is not enough to discern if the underground materials were sediments or volcanic remnants.

### What is Zhurong Rover?

- Zhurong named after a Chinese mythical fire god, is China's first Mars rover carried by China's Tianwen-1 spacecraft in 2021.
- It is powered by retractable solar panels and fitted with seven primary instruments like cameras, ground-penetrating radar, a magnetic field detector and a weather station.
- The purpose of the radar is to look for signs of ancient life as well as subsurface water.



## Nobel Prize Physiology or Medicine

**News:** This year's Nobel Prize has gone to a scientist who is credited with developing methodologies to extract 'clean' DNA from human fossils thousands of years old, and reading the genetic information they contain.

### Background:

- The analysis of DNA to create genetic profiles of an organism sounds like a relatively unremarkable exercise these days. But that is when the DNA samples are readily available.
- Obtaining genetic information of organisms that went extinct thousands of years ago can be extremely difficult, mainly because of the complications in collecting their DNA. While it is possible to extract DNA samples from fossil and remains, it is not as straightforward as getting it from organisms that inhabited the earth in more contemporary times.



### Who won the Nobel Prize for Medicine?

- **Svante Paabo** (born 20 April 1955) is a Swedish geneticist specializing in the field of evolutionary genetics and a Nobel prize laureate.
- He has worked extensively on the Neanderthal genome.
- He was appointed director of the Department of Genetics at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany in 1997 and is also a professor at Okinawa Institute of Science and Technology, Japan.

### Details about the discovery:

- Svante Pääbo has accomplished sequencing the genome of the Neanderthal, an extinct relative of present-day humans.
- He also made the sensational discovery of a previously unknown sub-species of the human family, now called Denisovans, who lived around same times as Neanderthals.
- In fact, the ancestors of modern humans, Neanderthals and Denisovans co-existed for about 20,000 years, during which they not only interacted with each other, but also inter-bred, Paabo's research has shown.

### Importance of Discovery:

- His findings suggest that gene transfer had occurred from these now extinct hominins to Homo sapiens following the migration out of Africa around 70,000 years ago.
- This ancient flow of genes to present-day humans has physiological relevance today, for example affecting how our immune system reacts to infections.

## Nobel Prize in Physics 2022

**News:** This year's Nobel Prize in Physics was awarded in equal parts to **Alain Aspect** of the University of Paris-Saclay, **John F. Clauser** of J. F. Clauser & Associates, and **Anton Zeilinger** of the University of Vienna, for their pathfinding work in **quantum mechanics** and **quantum information science**.

### Background:

- For about 100 years now, quantum 'entanglement' has triggered an intense but fascinating debate over the nature of reality among some of the sharpest brains of the 20<sup>th</sup> century. It is one of the main reasons why Quantum theory appears so strange and counterintuitive.



Figure 1 Alain Aspect, John F Clauser and Anton Zeilinger

### How did the trio ensure balance of debate is tilted in one direction?

- Their experiments have conclusively established that the '**entanglement**' **phenomenon** observed in quantum particles **was real**, not a result of any 'hidden' or unknown forces, and that it could be utilised to make transformative technological advances in **computing**, **hack-free communications**, and science fiction-like concept of '**teleportation**'.

### What is Quantum 'entanglement'?

- According to it, two particles having 'interacted' with each other at some stage, were found to have got 'entangled' in a way that the behavior of one produced an instantaneous reaction in the other even if the two were no longer connected in any way and were separated by very large distances.
- Einstein was however not comfortable with this. He proposed that there was something missing, and that quantum theory was not yet complete.
- However, experimentalists were discovering that almost every prediction made by the quantum theory was being obeyed the sub-atomic particles. The only problem being an experiment to test a phenomenon like entanglement did not appear feasible.

### What is Bell's inequality experiment?

- John Bell, showed mathematically what was required to be done by experimentalists to establish the phenomenon of entanglement.
- The famous Bell's inequality, if maintained in the results of experiments, would mean that Einstein was right. If violated, it would prove the predictions of Quantum theory.



### What is the role played by 3 nobel laureates?

- Clauser was the first to set up an experiment to test entanglement.
- Aspect is credited with vastly improving the set-up of Clauser and removing the loopholes critics had found.
- Zellinger demonstrated that it was possible to 'teleport' the quantum states of a particle to another location without the particle moving anywhere and without a medium.

### Significance of Findings:

- It will be utilized **to build the next generation** of computers, called **quantum computers**, which exploit the quantum behavior of particles to overcome challenges considered unsurmountable.
- It will be used to **create secure communication algorithms** that would be immune to hacking.

## Super Apps

**News:** ELON MUSK, the billionaire chief executive of Tesla Inc., is now willing to proceed with his original plan to buy Twitter after seemingly backing down earlier. On Tuesday, he tweeted: "Buying Twitter is an accelerant to creating X, the everything app."

### What are Super Apps?

- A super app is a platform developed by a company offering various services under one umbrella.
- For example, WeChat, which started out as a messaging app, expanded into payments, shopping, food ordering, cab services, etc. to become a super app.

### Who makes them?

- Typically, companies that have a slew of services and products to offer tend to consolidate them into a super app. The concept first emerged in China and Southeast Asian countries like Thailand and Indonesia, where Internet companies like WeChat and Grab leveraged the customer traffic on their platforms that originally came for social media and communication needs.
- They then offered these customers additional services, leading to increased revenue realizations.
- According to Internet consultancy firm RedSeer, these businesses see high customer footfall and high repeat purchase frequency, both critical parameters for a super app's growth.
- **TataNeu**, the super app launched in India this year, aligns more with this approach.

### What about Indian companies?

- India is a market where **most people are experiencing the Internet for the first time** on their mobile phones. This is one of the main reasons why Indian companies are looking at building super apps.
- Apart from increased revenue realization with the consolidation of services, such apps also provide companies with **large swaths of consumer data** which can then **be harnessed to learn more** about user behavior.
- Apart from TataNeu, Reliance Industries under its Jio umbrella has consolidated offerings such as shopping, content streaming, groceries etc.
- Paytm has also brought together services like payments, ticket bookings, games and online shopping.

### What are concerns?

- Risk of monopoly.
- There are also concerns about privacy in cases where a super app has on boarded third-party service providers. Experts point out that data collected by the master app could be used to train machines in artificial intelligence and predict consumer behavior.
- It is one of the main reasons why super apps have not picked pace in countries such as the US and the UK, the experts say.



## Chemistry Noble Prize 2022

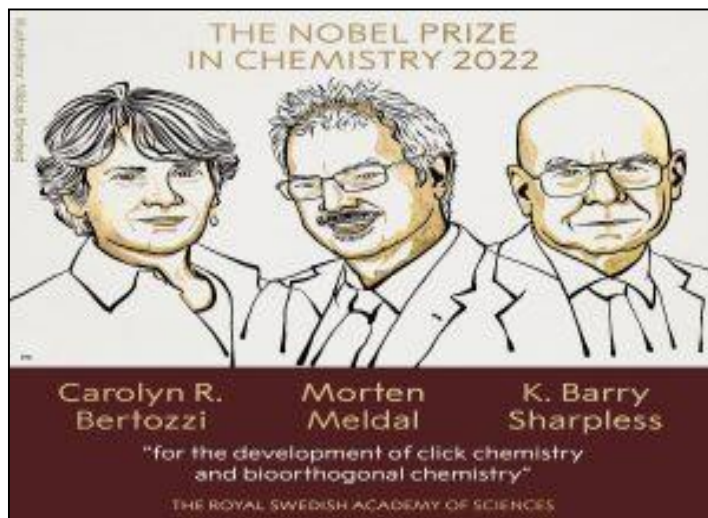
**News:** The 2022 Nobel Prize in Chemistry has been awarded to chemists **Carolyn R. Bertozzi** and **K. Barry Sharpless** from the U.S., and **Morten Meldal** from Denmark, for their work in the field of **click chemistry** and **bioorthogonal chemistry**.

### What is Click Chemistry?

- Click Chemistry is a minimalistic form of chemistry in which molecular building blocks can quickly and efficiently snap together.
- It is a form of simple and reliable chemistry, where reactions occur quickly, and unwanted by-products are avoided.

### What is Bioorthogonal Chemistry?

- Bioorthogonal chemistry represents a class of high-yielding chemical reactions that proceed rapidly and selectively in biological environments without side reactions towards endogenous functional groups.
- Rooted in the principles of physical organic chemistry, bioorthogonal reactions are intrinsically selective transformations not commonly found in biology.



## Lassa Fever

**News:** A recent study shows that climate change may increase the rate of spread of Lassa Fever which is endemic to parts of Western, Central and Eastern Africa continent in the next 50 years.

### About:

- The virus is a single-stranded RNA virus belonging to the virus family Arenaviridae. The fever is spread by rats and is primarily found in countries in West Africa including Sierra Leone, Liberia, Guinea, and Nigeria where it is endemic.
- According to the European Centre for Disease Prevention and Control, about 80% of the cases are asymptomatic and therefore remain undiagnosed.

### Transmission:

- A person can become infected if they come in contact with household items of food that is contaminated with the urine or feces of an infected rat (zoonotic disease).

### Symptoms:

- Mild symptoms include slight fever, fatigue, weakness and headache.
- Serious symptoms include bleeding, difficulty breathing, vomiting, facial swelling, pain in the chest, back, and abdomen and shock.

The infographic is titled "LASSA FEVER" and is from the World Health Organization. It is divided into three main sections. The top section, "What is Lassa fever?", shows a map of West Africa and states that Lassa fever is a viral illness that typically occurs in West Africa. The middle section, "How is Lassa fever spread?", explains that the virus is transmitted to humans mainly through handling rats, food, or household items contaminated by rats' urine and faeces. It also notes that the virus can spread between people through direct contact with body fluids of an infected person, as well as contaminated bedding and clothing, but cannot be spread through hugging, shaking hands, or sitting near someone. The bottom section, "What are the symptoms of Lassa fever?", states that symptoms typically occur 2-21 days after contact with the virus, and many people do not show symptoms. It lists symptoms such as fever, headache, sore throat, chest and muscle pain, nausea, vomiting, and diarrhoea, and facial swelling. It also mentions that in severe cases, there can be bleeding from the mouth, nose, vagina, or gastrointestinal tract. An illustration of a person holding their head in pain is shown next to the symptoms list.

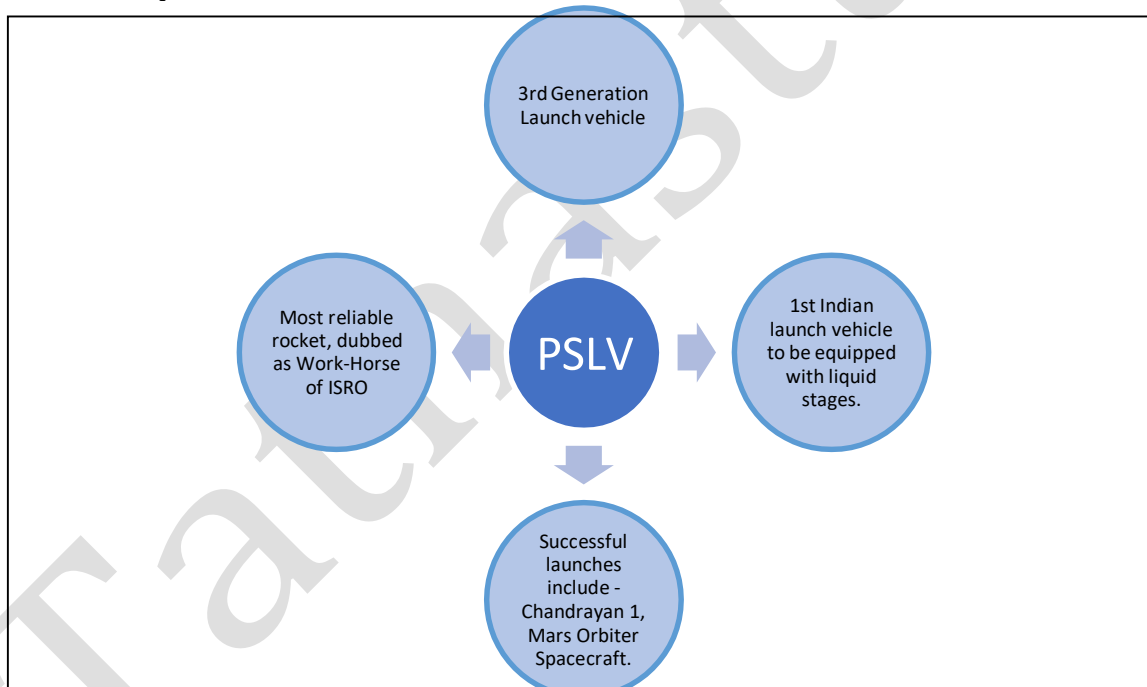
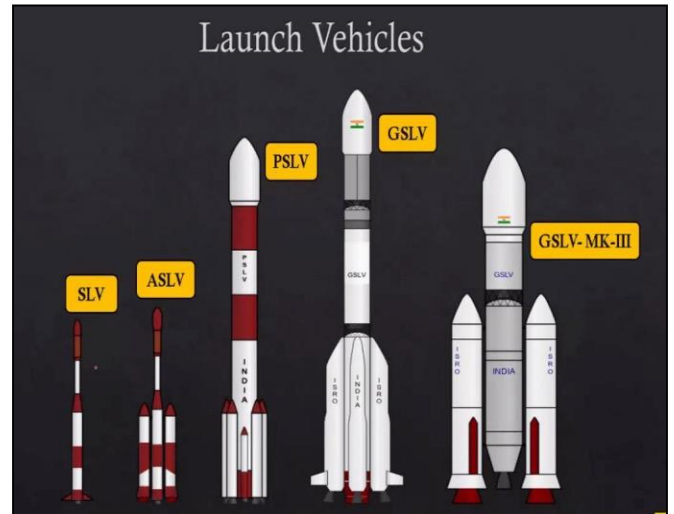
## ISRO's next Gen Launch Vehicle

**News:** The ISRO chairman recently announced to launch Next-Gen Launch Vehicle (NGLV), which is-going to replace operational systems like the Polar Satellite Launch Vehicle (PSLV).

- Launch Vehicles are used to carry spacecraft to space. India has two operational launchers, PSLV and Geosynchronous Satellite Launch Vehicle (GSLV).

### About NGLV:

- In NGLV, ISRO is looking at a cost-efficient, three-stage to orbit, reusable heavy-lift vehicle with a payload capability of ten tonnes to Geostationary Transfer Orbit (GTO).
- Its robust design allows bulk manufacturing, modularity in systems, sub-systems and stages and minimal turnaround time.
- It is featured, with semi-cryogenic propulsion (refined kerosene as fuel with liquid oxygen (LOX) as oxidiser) for the booster stages, which is cheaper and efficient.
- Potential uses will be in the areas of launching communication satellites, deep space missions, future human spaceflight and cargo missions.
- It will replace the PSLV launch vehicle and aimed to be more efficient than, other launch vehicles of ISRO



## Barium detected in atmosphere of Exo-planets

**News:** Recently, Scientists have detected barium in the upper atmosphere of two giant exo-planets for the first time.

- Barium, two and half times heavier than iron, is the heaviest-ever detected element.

**What are exoplanets?**

- An exoplanet is any planet beyond our solar system. Most orbit other stars, but free-floating exoplanets, called rogue planets, orbit the galactic center and are untethered to any star.
- Most of the exoplanets discovered so far are in a relatively small region of our galaxy, the Milky Way. ("Small" means within thousands of light years of the solar system).

#### Key Findings:

- The exoplanets that have been considered are two ultra-hot Jupiters- WASP-76b and WASP-121b -which orbit their host stars WASP 76 and WASP 121 (Named so as they have similar properties to Jupiter)
- Both WASP-76b and WASP-121b complete one orbit in two days. Surface temperatures in these bodies reach as high as 1,000 degrees Celsius. These bodies have unique features owing to their high temperatures. For instance, WASP-76b experiences 'iron rain'.
- They also confirmed the presence of hydrogen, lithium, sodium, magnesium, calcium, vanadium, chromium, manganese, and iron in the atmosphere of the WASP-76 b, in addition to barium.
- This discovery of barium is surprising because heavy elements like barium are expected to quickly fall (as these exoplanets have high gravity) into the lower layers of the atmosphere.
- It revealed some new dynamics inside the atmospheres or gives us insights into the composition of these distant planets.

#### Properties and uses of Barium:

- Barium is a soft, silvery metal that rapidly tarnishes in the air and reacts with water.
- It is used in paint and in glassmaking.
- Barium carbonate has been used in the past as a rat poison. Barium nitrate gives fireworks a green color.

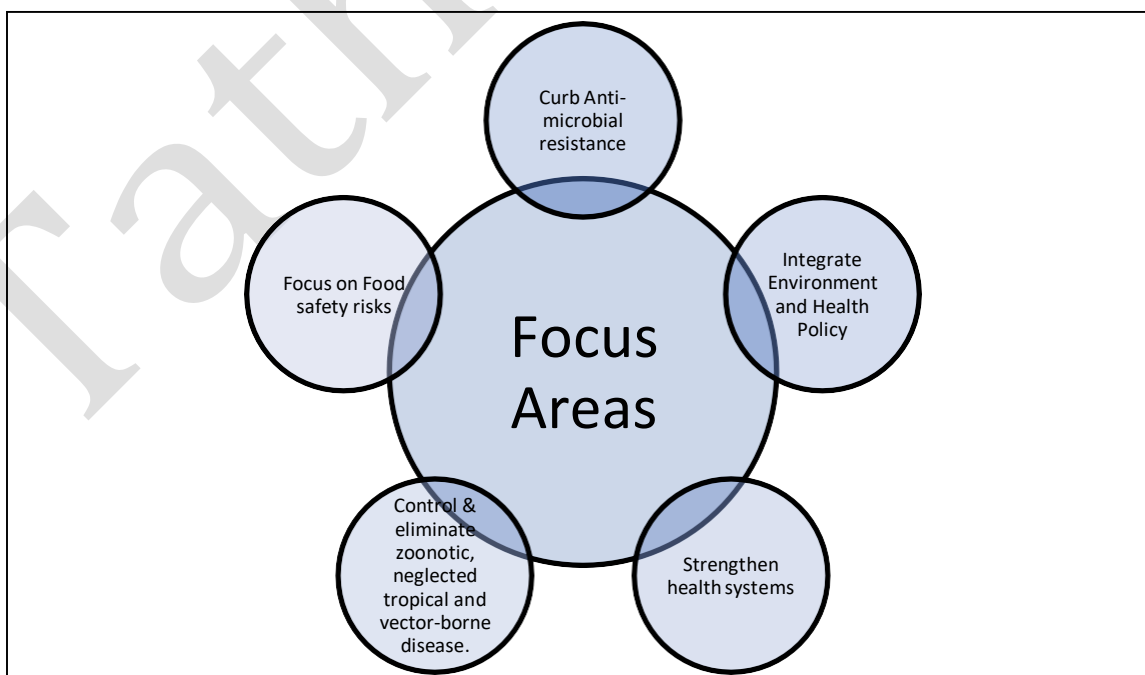
Barium is toxic, as are its water- or acid-soluble compounds.

## One Health Joint Plan of Action

**News:** Recently, UNEP, WHO, FAO and World Organization for Animal Health have together launched One Health joint plan of action to address health threats to humans, plants and the environment.

#### What is One Health?

- It is an approach calling for "the collaborative efforts of multiple disciplines working locally, nationally, and globally, to attain optimal health for people, animals and our environment".
- One health issues include zoonotic diseases, anti-microbial resistance, food safety, vector borne diseases, environmental contamination etc.



### **What is the need for One-health?**

- Disruptions in environmental conditions and habitats can provide new opportunities for diseases to pass to animals.
- Rising human population has led to expanding geographic areas where humans look to settle. This has resulted in greater contact with animals and environments which eventually provides more opportunities for diseases to pass between animals and people.
- Increasing temperatures are supporting range expansion for disease vectors, with the resulting spread of vector-borne diseases expected in humans and animals.
- For people to lead a healthy life, having healthy environment is the key.
- Changes in climate and land use patterns.
- Animals are more than just food now!

### **What is the way forward?**

- The Covid-19 pandemic showed the importance of 'One Health' principles in the way we deal with infectious diseases, highlighting importance of efforts to prevent and contain zoonotic diseases throughout the world.
- Operationalize One health approach at every stage down to the village level. This can be ensured by developing best practice guidelines for informal market and slaughter house operations.
- There must be efforts to ensure that Animal health receives adequate funding. We need more schools of veterinary medicine.
- An international body that would work for creating a global network of qualified individuals working locally, regionally, nationally and internationally to share information with respect to various dimensions of One Health is needed.

# Environment & Bio-diversity

## Particulate Matter

**News:** The Centre has set a new target of 40 percent reduction in particulate matter concentration in cities covered under the National Clean Air Programme (NCAP) by 2026, updating the earlier goal of 20 to 30 percent reduction by 2024.

### What is Particulate Matter (PM)?

- Particulate matter, or PM, is the term for particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Particles can be suspended in the air for long periods of time.
- Some particles are large or dark enough to be seen as soot or smoke. Others are so small that individually they can only be detected with an electron microscope.
- Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM.

### PM distinguished based on size:

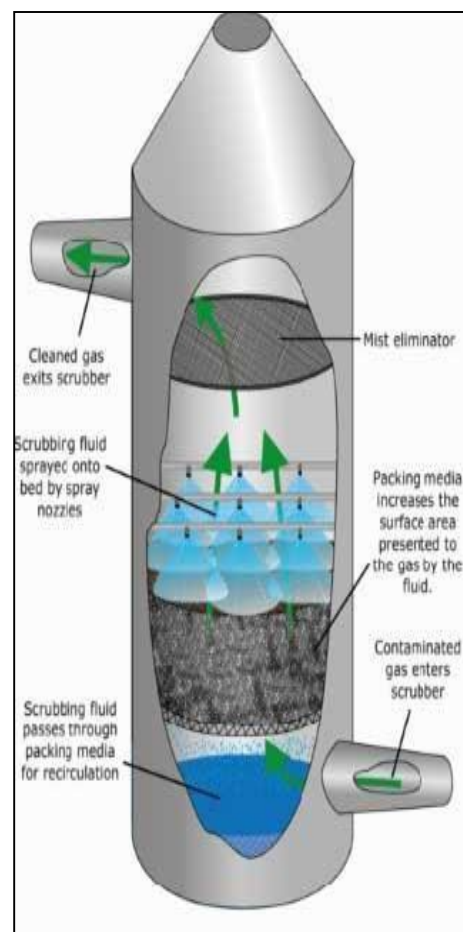
- These particles come in a wide range of sizes.
- Particles **less than 10 micrometers** in diameter (PM10) pose a health concern because they can be inhaled into and accumulate in the respiratory system.
- Particles **less than 2.5 micrometers** in diameter (PM2.5) are referred to as “fine” particles and are believed **to pose the greatest health risks**.
- Particles with diameters between 2.5 and 10 micrometers are referred to as “coarse”.
- Because of their small size (approximately 1/30th the average width of a human hair), **fine particles can lodge deeply into the lungs**.

### What are the sources of PM?

- Sources of fine particles include all types of combustion activities (motor vehicles, power plants, wood burning, etc.), forest fires and certain industrial processes.
- The secondary source of pollution can be due to complex reactions of chemicals like sulphur dioxide and nitrogen oxide. These particles are mixed in air and pollute it.
- Apart from these, forest fires, wood burning stoves, agricultural burning, smoke of the industry, dust occur from various construction sites also causes air pollution.
- Some indoor sources of fine particles are tobacco smoke, cooking (e.g., frying, sautéing, and broiling), burning candles or oil lamps, and operating fireplaces and fuel-burning space heaters (e.g., kerosene heaters).

### What is the impact of exposure to PM on the human health?

- For PM2.5, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days.
- Adverse health impacts have been primarily seen in infants, children and older adults (with pre-existing heart and lung issues)
- Long-term (months to years) exposure to PM2.5 has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.





- According to a study, increase in PM<sub>2.5</sub> by one microgram per cubic metre reduces life expectancy by three weeks, which implies that such alarming increases could chop off a significant portion of one's healthy years.

### What steps can be used to lower PM 2.5 levels in atmosphere?

- **Particulate/Wet Scrubbers** - In a wet scrubber, the polluted gas stream is brought into contact with the scrubbing liquid, by spraying it with the liquid, by forcing it through a pool of liquid, or by some other contact method, so as to remove the pollutants.
- **Electrostatic Precipitators** - Electrostatic precipitators are highly efficient filtration devices that minimally impede the flow of gases through the device, and can easily remove fine particulates such as dust and smoke from the air stream.
- **Focus on NO<sub>x</sub> control** – Opting for low NO<sub>x</sub> burners, using NO<sub>x</sub> scrubbers.

### About NCAP:

- It is the first-ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.
- The goal of NCAP is to meet the prescribed annual average ambient air quality standards at all locations in the country in a stipulated timeframe.
- Under NCAP, 131 cities are being targeted for improving air quality.
- Of these 131 cities, 123 cities (NACs) are identified under NCAP based on non-conforming to national ambient air quality standards (NAAQS) consecutively for five years. In addition, million plus cities (MPCs) are also covered, those identified by 15<sup>th</sup> Finance Commission (XV-FC), for receiving performance based grant for air quality improvement.
- According to the Union Environment Ministry, 95 of the 131 non-attainment cities covered under the NCAP have witnessed an “overall improvement” in PM<sub>10</sub> levels in 2021 as compared to 2017 levels.
- In Delhi, the PM<sub>10</sub> concentration has reduced from 241 micrograms per cubic metre in 2017 to 196 micrograms per cubic metre in 2021.

Figure 2 Wet Scrubber

## Reversing Degraded Land

**News:** The Government of India is planning to bring convergence between the MGNREGA and the Pradhan Mantri Krishi Sinchayee Yojana to restore degraded land.

### Land Degradation and Desertification:

- Land Degradation is the decline in productivity of land in terms of biodiversity and economy, resulting from various natural causes (wind erosion, water erosion, forest fire, drought, permafrost thawing) and through anthropogenic factors (population pressure, grazing, climate change, overuse of fertilizer etc)
- The term Desertification is a sub-set of land degradation. Desertification refers to land degradation occurring in dryland regions (arid, semi-arid, dry sub-humid)

### Some facts that you should know:

- Around 69% of India falls under Drylands.
- According to Desertification and Land Degradation Atlas, at least 30% of India's total geographical area is under the category of 'degraded land'.
- Majority of land degradation/desertification with respect to total geographical area of country is contributed by Rajasthan, Maharashtra, Gujarat, Karnataka, Jharkhand, Odisha.
- Under the **Bonn Challenge**, India has pledged to restore **26 million hectares** of Degraded and Deforested Land by 2030. (Earlier it was 21 million ha)

### How will the convergence of scheme help?

- Resource convergence will establish a synergy between government, NGOs, the private sector and beneficiaries. It will result in better planning and bring effective investments in rural areas.
- The process will help in creating durable assets and will also improve land productivity.
- Natural resource base regeneration through different Activities such as afforestation, drought proofing, flood proofing, and watershed will lead to effective use of Resources.

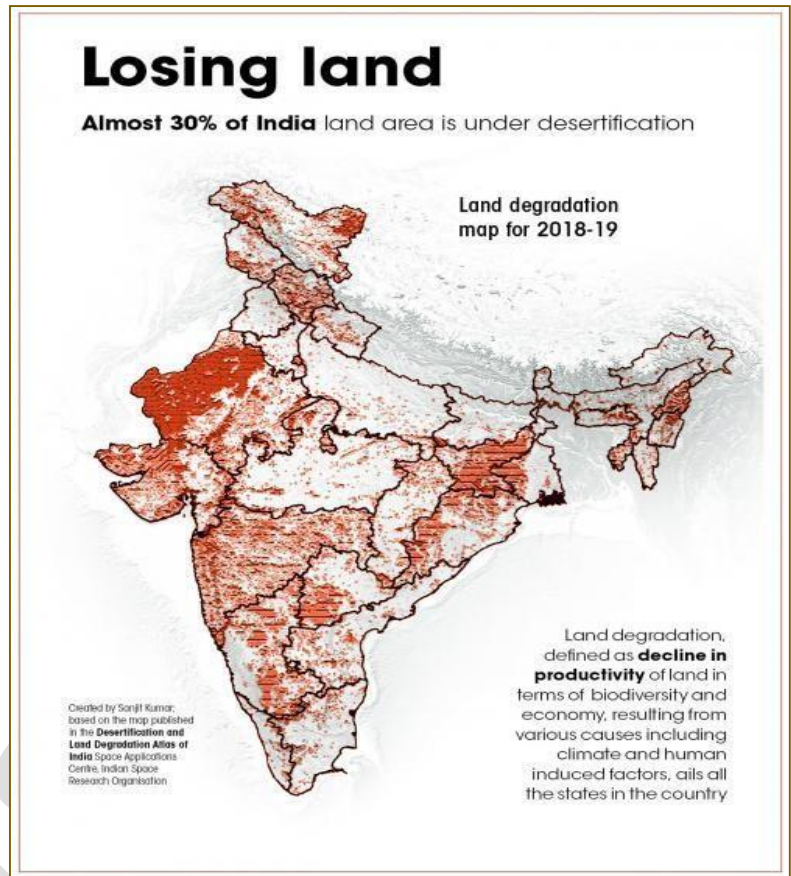
- Collective planning and implementation among different stakeholders will enhance social capital.
- So far only 9.8 million ha of total pledged area 26 million ha has been covered under restoration (as per <https://www.bonncallenge.org/pledges/india> ) therefore it expected that convergence of the schemes will increase the total area under restoration of degraded land.

### What are the other steps taken to combat issue of Land Degradation?

- India promotes sustainable land management practices in agriculture sector through schemes such as Pradhan Mantri Fasal Bima Yojana, Pradhan Mantri Krishi Sinchayee Yojana, Soil Health card scheme, Per drop more crop.
- ISRO's Desertification and Land Degradation Atlas of entire country provides valuable data for our policy makers.
- National Mission on Green India, National Afforestation Programme.
- India is signatory to United Nations Convention to Combat Desertification.

### Way Forward:

- Land Degradation can be addressed through utilizing local and indigenous knowledge, every stakeholder must be involved in land use planning.
- Improving agricultural practices is the key as well. We can adopt No-Tillage farming practices, inter-cropping, increase use of locally adapted varieties of crops, seeds etc.
- We can look to create 'Green walls' through afforestation, increasing tree cover and restoring vulnerable ecosystems.



## Living Planet Report 2022

**News:** Released every two years the report states that there has been a **69% decline** in the wildlife populations of mammals, birds, amphibians, reptiles and fish, across the globe in the last 50 years, according to the Living Planet Report 2022 by **World Wide Fund for Nature (WWF)**.

### About:

- Living Planet Report is WWF's flagship publication. It is a comprehensive study of trends in global biodiversity and the health of the planet. It tracks changes in the relative abundance of wild species populations across the globe.
- The Living Planet Index (LPI) is continually changing with 838 new species. 11,011 new populations were added to the dataset. Since the 2020 LPR was released.
- The Living Planet Index (LPI) is a measure of the state of the world's biological diversity based on population trends of vertebrate species from terrestrial, freshwater, and marine habitats.
- The LPI was adopted by the **Convention of Biological Diversity (CBD)** as an indicator of progress toward its 2011-2020 targets.
- There has been a significant increase in the number of fish species (481) which has been added to the Living Planet Report

## Key Findings:

- There has been a 69 percent decline in the wildlife populations of mammals, birds, amphibians, reptiles, and fish, across the globe in the last 50 years.
- The freshwater populations have declined the most, with an average 83% decline between 1970 and 2018.
- The IUCN Red List shows cycads, an ancient group of seed plants, are the most threatened species. While corals are declining the fastest, followed by amphibians.
- Only **37% of rivers** that are over **1,000 km long remain free-flowing**, or in their natural state, including rivers in India that are largely no longer free-flowing. This, the report noted, **has threatened migration of fish**.

## Region-wise Findings:

- The highest decline in the wildlife populations (94%) was in the Latin America and the Caribbean region.
- Africa recorded a 66% fall in its wildlife populations from 1970-2018 whereas the Asia-Pacific recorded a decline of 55%.
- Southeast Asia is the region, where species are most likely to face threats at a significant level.
- The Polar Regions and the east coast of Australia and South Africa showed the highest impact probabilities for climate change, driven in particular by the impact on birds.

## Corals:

- About 50% of warm water corals have already been lost. Warming of 1.5 degrees Celsius will lead to a loss of 70-90% of warm water corals and 2 degrees Celsius warming will lead to loss over 99%.

## Mangroves:

- Despite their importance, mangroves continue to be deforested by aquaculture, agriculture and coastal development at a rate of 0.13% annually, the report noted.
- It stated that many mangroves are degraded by over-exploitation and pollution, alongside natural stressors such as storms and coastal erosion.
- Mangrove loss represents the loss of habitat for biodiversity and the loss of ecosystem services for coastal communities, and in some locations it can mean the loss of the very land where coastal communities live. For instance, 137 km of the Sundarbans mangrove forest have been eroded since 1985, reducing land and ecosystem services for many of the 10 million people who live there.

## What are the main threats of Wildlife population decline?

- **Habitat degradation** and loss, **exploitation**, the introduction of **invasive species**, pollution, climate change and disease.
- **Land-use change** is still the **biggest current threat to nature**, destroying or fragmenting the natural habitats of many plant and animal species on land, in freshwater and in the sea.
- However, if we are unable to limit warming to 1.5°C, climate change is likely to become the dominant cause of biodiversity loss in the coming decades.
- The Bramble Cay melomys, a small Australian rodent, was declared extinct after the sea-level rise.

## Green Crackers

**News:** It's that time of the year when Crackers are always in the news and Green crackers are part of discussion which prompts us to discuss about its existence and how they work.

### What are Green crackers?

- Dubbed as eco-friendly crackers and they cause less air and noise pollution when compared to traditional firecrackers.



- These crackers were first designed by the National Environmental and Engineering Research Institute (NEERI), under the aegis of the Council for Scientific and Industrial Research (CSIR) in 2018. NEERI is a constituent of CSIR to conduct research and developmental studies in environmental science and engineering.
- These crackers replace certain hazardous agents in traditional crackers with less polluting substances with the aim to reduce the noise intensity and emissions.
- Most green crackers do not contain barium nitrate, which is the most dangerous ingredient in conventional crackers.
- Green crackers use alternative chemicals such as potassium nitrate and aluminum instead of magnesium and barium as well as carbon instead of arsenic and other harmful pollutants.
- Regular crackers also produce 160-200 decibels of sound, while that from green crackers are limited to about 100-130 decibels.

**WHAT ARE 'GREEN CRACKERS'?**

Firecrackers that have "less dangerous" and "less harmful" chemicals than conventional ones

Expected to hit the market in 4-5 years\*

**Being Developed by**  
CSIR's National Environmental Engineering Research Institute

**Green Because**

- ▶ They have a chemical formulation that produces water molecules
- ▶ This substantially reduces emission level and absorbs dust
- ▶ Is basically a light and sound show that produces lower emissions
- ▶ Promise **30-35% reduction** in particulate matter, nitrous oxide and sulphur oxide

**Also In The Works**  
E-CRACKERS BEING DEVELOPED BY CSIR'S CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE

**OTHER INITIATIVES**

- Crackers with lower aluminium to reduce emissions substantially
- 'Anar' or flower pot made using eco-friendly material that can reduce particulate matter by 40%
- Bijli crackers that eliminate use of ash as desiccants
- Firecrackers without antimony, lithium, mercury, arsenic and lead as directed by PESO last year

Council of Scientific and Industrial Research

### How can we identify Green crackers?

- **STAR – Safe Thermite Cracker** - It does not contain sulphur and potassium nitrate, and besides controlling particulate dust emissions, it also has lower sound intensity.
- **SWAS – Safe Water Releaser** - These crackers do not use sulphur or potassium nitrate, and thus release water vapor instead of certain key pollutants. It also deploys the use of diluents, and thus is able to control particulate matter (PM) emissions by upto 30%.
- **SAFAL - Safe Minimal Aluminum** - It replaces aluminum content with magnesium and thus produces reduced levels of pollutants.

### Who can produce such Crackers?

- Licensed manufacturers approved by CSIR can produce such crackers.
- The Petroleum and Explosives Safety Organization (PESO) is tasked with certifying that the crackers are made without arsenic, mercury, and barium, and are not loud beyond a certain threshold. PESO is an office under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industries. It was established in 1898 as a nodal agency for regulating safety of substances such as explosives, compressed gases and petroleum.
- Additionally, green crackers can be differentiated from conventional crackers in retail stores by a green logo printed on their boxes, along with a Quick Response (QR) coding system.

### What are limitations of Green crackers?

- Lack of awareness amongst both sellers and public on how to identify the right green crackers.
- Customer preference for traditional crackers due to lack of availability of green crackers, or due to their higher prices.
- As green crackers can only be legally manufactured by firms that have signed agreements with the CSIR, no small-scale business can manufacture green crackers, leaving many unemployed.

# Security & Disaster Management

## The new CDS has his task cut out

**News:** The Government appointed former Eastern Army Commander **Lt. General Anil Chauhan** as the next Chief of Defense Staff (CDS). The next Chief of Defense Staff (CDS) shall also function as **Secretary** to the Government of India, Department of Military Affairs.

### About:

- The CDS is a **four-star General/Officer** who acts as the **Principal Military Advisor to the Defence Minister** on all tri-services (Army, Navy and Indian Air Force) matters.
- CDS acts as the **permanent Chairman** of the Chiefs of Staff Committee which will also have three service chiefs as members. His core function will be to foster greater operational synergy between the three service branches of the Indian military and keep inter-service frictions to a minimum
- He also **heads** the newly created **Department of Military Affairs (DMA)** in the Ministry of Defense.
- The CDS is also vested with the authority to provide directives to the three chiefs. However, he does not enjoy any command authority over any of the forces.
- CDS is first among equals, he enjoys the rank of Secretary within the DoD (Department of Defense) and his powers will be confined to only the revenue budget. He will also perform an **advisory role** in the **Nuclear Command Authority (NCA)**.

### Why does the new CDS has his work cut out?

- He will have to continue on the unfinished work started by Late Gen Rawat. Gen Rawat had dived into the CDS mandate for modernization of the armed forces, especially the creating of integrated theatre commands.
- He will need to allay the fears of how theaterisation might dilute the role of the service chiefs. Gen Rawat's push for about 5 to 6 theatres to replace the 17 single service commands got stuck due to difference between them.
- To check how Russia's war in Ukraine affects India's procurement, what diversification Delhi might bring in its hardware purchases, and how much of a say the CDS will have in this.
- As the Agnipath scheme is also introduced the challenge before the CDS will be to ensure that this scheme does not alter the efficiency of the armed forces.
- The need to build operational capability at a pace that will ensure that the military power asymmetry vis-à-vis China remains manageable.
- Integrating military planning and training to levels that go beyond lip service.
- Balancing the need to retain the operational capability and the government's push towards self-reliance to defence manufacturing.
- Lastly and most importantly, the new CDS must build a bridge between a government in a hurry and an organization resistant to change.

### Way forward:

- The CDS must not hesitate to speak truth to power. He must be impartial while taking tough decisions and hold national interest above all-else.

## LCH Prachand

**News:** The Indian Air Force on Monday inducted the first batch of made-in-India **light combat helicopters**, which would be called '**Prachand**'. This marks an important milestone, defense minister Rajnath Singh said, as the government's 'Atmanirbhar Abhiyan' expands in the defense sector.

### About:

- The LCH was developed after around 20 years of research and development post Kargil War. The name Prachand means "fierce".



- It was designed and developed by the state-owned defense company **Hindustan Aeronautics Limited (HAL)**.
- This indigenously developed 5.5 tonne class combat helicopter is equipped with **numerous stealth features**, armored protection, **night attack capability** and landing gear capable of survival.
- It is a Twin-engine helicopter which is armed with air to air missiles, 20 mm turret guns, rocket systems and other weapons.
- It has extended range and high-altitude performance capability as well as the round-the-clock, all-weather combat capability.
- They have **45% indigenous content by value** which will **progressively increase to 55%** and are equipped with HAL's Shakti engine, developed in collaboration with French engine-maker Safran.



#### Utility of LCH:

- Designed for high-altitude areas, the **LCH can operate at 20,000 feet** and **perform combat, search and rescue roles**. The helicopters will especially come in handy in boosting our defense infrastructure **along the LAC with China**.
- Two LCHs were even flight-tested in eastern Ladakh in 2020 amid the military confrontation with Beijing Helicopters are crucial given their versatility.

#### Limitations faced and what needs to be done?

- Much like the challenge faced with fighter jets, there is an **urgent need to replace obsolete choppers**, some of which, like the Chetak and Cheetah, are of 1960s-70s vintage.
- Then there is the **huge dependency on Russian hardware**. Given the war in Ukraine, this dependency puts India in a tough spot both in terms of maintenance and warding off US sanctions.
- India needs to **not just diversify its import sources** but also **reduce its import bill**. It is the largest importer of arms in the world and as the current volatility in global markets shows, large importers of any particular class of products - whether food or fuel or even armaments, which have a longer term horizon are particularly vulnerable.
- We are still way off from acquiring **deep expertise in engine development**, particularly in the jet engine segment after the failure of the indigenous Kaveri project.

#### Way Forward:

- The share of **India's foreign defense purchases** has **come down by almost 21%** in 2017-21 compared to 2012-16, according to the **Stockholm International Peace Research Institute**. But unless **mastery of critical technologies** is achieved, this share won't reduce further appreciably.
- LCH show what India can do in Defense manufacturing and what more it needs to do.

## Sukhoi 30 (SU-30) MKI Fighters

**News:** The Indian Air Force (IAF) is set to increase the number of Sukhoi 30 (SU-30) MKI fighters integrated with BrahMos supersonic missile.

#### About SU-30 MKI Fighter Jets:

- The Sukhoi Su-30MKI is a **twinjet** multirole air superiority fighter developed by **Russia's Sukhoi** and built under license by **India's Hindustan Aeronautics Limited (HAL)** for the Indian Air Force (IAF).
- A variant of the Sukhoi Su-30, it is a heavy, all-weather, long-range fighter.
- The first Russian-made Su-30MKI variant was accepted into the Indian Air Force in 2002, while the first Su-30MKI assembled in India entered service with the IAF in 2004.
- The IAF has nearly **260 Su-30MKIs** in inventory as of January 2020.
- The Su-30MKI is expected to **form the backbone** of the Indian Air Force's fighter fleet to 2020 and beyond.

## About Brahmos Missile:

- The BrahMos is a **ramjet supersonic cruise** missile of a short-range developed by the Defence Research and Development Organisation (DRDO) and the Russian Federation's NPO Mashinostroyeniya (NPOM).
- It is named after two major rivers of India and Russia - Brahmaputra and Moskva.
- They can be launched from **land, air and sea**, and all three variants are in service in the Indian armed forces.
- It is a **two-stage** (solid propellant engine in the first stage and liquid ramjet in second) missile.
- It operates on the "Fire and Forget" principle which basically means it does not require further guidance after launch.

## How does the collaboration help?

- The range of Brahmos missile has been extended from 290 kms to over 500 kms.
- Given the Su-30s' maritime strike capability, the IAF had made this move with an eye on keeping check on the increasing Chinese naval presence in the Indian Ocean Region.

## Interpol

**News:** The General Assembly of the International Criminal Police Organisation (Interpol) is meeting in Delhi.

### What is Interpol?

- It was set up in 1923, as a **secure information-sharing platform** that facilitates criminal investigation of police forces across the globe through the collection and dissemination of information received from various police forces.
- It is headquartered in **Lyon, France**.
- It keeps **track of the movements of criminals** and those under the police radar in various regions and tips off police forces that had either sought Interpol's assistance or which in its opinion will benefit from the particulars available with it.
- It aims to promote the widest-possible mutual assistance between criminal police forces.

### How does it function?

- The **head of Interpol** is the President who is **elected by the General Assembly**. He comes from one of the member-nations and **holds office for four years**.
- The day-to-day activities are overseen by a full-time Secretary General elected by the General Assembly, who holds office for five years.
- The General Assembly lays down the policy for execution by its Secretariat which has several specialized directorates for cybercrime, terrorism, drug trafficking, financial crime, environmental crime, human trafficking, etc. Every member-country is the Interpol's face in that country.
- All contact of a country's law enforcement agency with Interpol is through the highest investigating body of the land. **The Central Bureau of Investigation (CBI)** assumes this role in India with one of its senior officers heading its exclusive Inter-wing (the National Central Bureaus) for collation of information and liaison with the world body.
- Interpol uses **19 databases** and tools for issuing alerts and sharing information about criminals and their modus operandi. It has a huge repository of fingerprints, DNA profiles, facial recognition kits, cyber-enabled financial crimes, and property crimes, among others.



### What are Interpol Notices?

- Interpol issues color-coded notices of various hues — **red, yellow, blue, black, orange, green, and purple**.

- A large number of red corner notices have been issued at the request of Indian law enforcement, resulting in the detention of several accused and convicted fugitives.
- In order to eliminate terrorism, corruption, and crime, Prime Minister Narendra Modi urged Interpol to speed up the pace of Red Corner Notices against fugitive offenders. While addressing the 90th General Assembly of Interpol at Pragati Maidan in New Delhi, the Prime Minister flagged global cooperation in dealing with corrupt who find safe havens in various parts of the world.

#### Limitations of Red Notices:

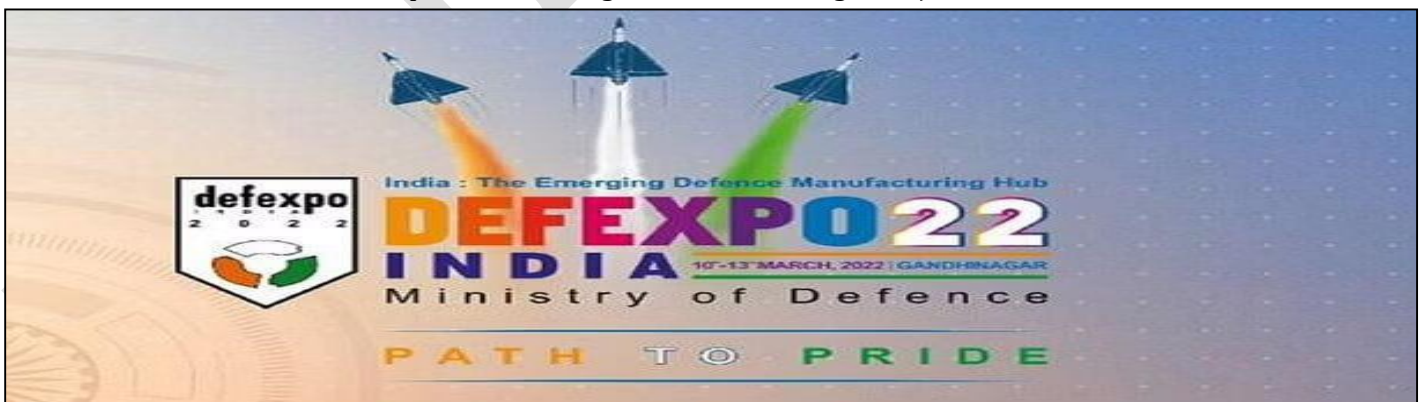
- A Red Notice is **not an international arrest warrant**, and Interpol cannot force any member country to arrest an individual who is the subject of a Red Notice. It is not for Interpol to judge the merit of a case or a decision taken by national courts – that is a sovereign matter.
- The role of Interpol is to determine if a request for a Red Notice is in line with their Constitution and rules.

#### Limitations of Interpol

- It is **not meant for dispute resolution**.
- It is designed to **assist the police forces of member nations**.
- Interpol is **neither an investigative agency like the CBI nor a front-line police force**.
- It is **mandated to share information** and provide back-end technical assistance to law enforcement agencies.
- Interpol's action against notorious fugitives is consequential upon commensurate action from member nations where the fugitives might be seeking shelter.
- **Interpol cannot act on its own**.
- The desired legal course of action depends on bilateral arrangements like mutual legal assistance treaties.

## DefExpo 2022

**News:** The 12th Edition of DefExpo 2022 is being held in Gandhinagar, Gujarat.



#### About:

- This is the 12th edition of the event that has been organized on the theme '**Path to Pride**'.
- DefExpo 2022 aims to showcase the growing prowess of the **domestic defense industry**, calling it one of the major drivers of the nation's resolve to achieve 'Make in India, Make for the World'.

- It is a biennial exhibition (organized every Two years) that has been organized to support, showcase, and forge partnerships for the Indian aerospace and defense manufacturing sectors with Indian as well as global customers.
- The Expo event is **exclusively for Indian companies** (First ever)
- This edition has the largest participation so far and is spread over one lakh square meters with 75 countries, 33 Foreign Ministers, 1,340 Indian companies, and 10 State pavilions.

#### **Important events:**

- It will host the 2nd edition of the India-Africa Defence Dialogue (IADD), with invites extended to 53 African countries.
- A separate Indian Ocean Region plus (IOR+) conclave with participation of approximately 40 countries will see India pitching its military hardware to various countries.
- It will also mark the celebration of one year of the formation of the seven new defence companies, carved out of the erstwhile Ordnance Factories.
- PM Modi also launched '**Mission DefSpace**', unveiled **HTT-40** (Hindustan Turbo Trainer 40) and released the **4<sup>th</sup> Defense Indigenisation List** at the ongoing DefExpo.

#### **About IADD:**

- The first IADD was held in Lucknow, Uttar Pradesh, during DefExpo 2020 and the '**Lucknow Declaration**' was adopted at the end of the conclave as an outcome document.
- A similar 'Gandhinagar document' will be adopted at the IADD. The IADD will explore new areas of convergence for mutual engagement, including in areas like capacity building, training, cyber security, maritime security, and counter-terrorism.
- India's approach towards Africa is guided by the Kampala Principles.

#### **About HTT-40:**

- HTT-40 is a basic training aircraft developed by Hindustan Aeronautics Limited (HAL) for the Indian Air Force (IAF). It will replace the ageing fleet of HAL HPT-32 Deepak trainers that are in service with the IAF.
- Its trainer offers the best-in-class fuel economy and power rating.
- Known to have a high climb rate, it has maximum speed of 450 km/hour.



# General Studies – 4

## Ethics, Integrity & Aptitude

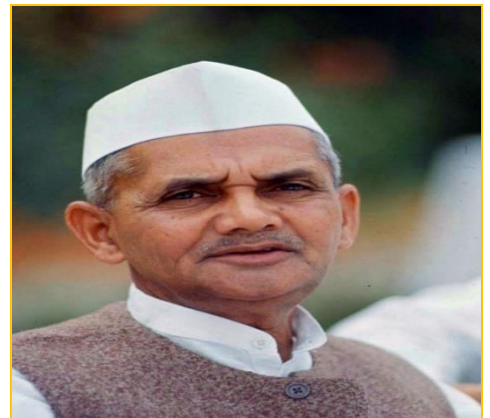
1. Ethics and Human Interface: Essence, determinants and consequences of Ethics in-human actions; dimensions of ethics; ethics - in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators; role of family society and educational institutions in inculcating values.
2. Attitude: content, structure, function; its influence and relation with thought and behaviour; moral and political attitudes; social influence and persuasion.
3. Aptitude and foundational values for Civil Service, integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker-sections.
4. Emotional intelligence-concepts, and their utilities and application in administration and governance.
5. Contributions of moral thinkers and philosophers from India and world.
6. Public/Civil service values and Ethics in Public administration: Status and problems; ethical concerns and dilemmas in government and private institutions; laws, rules, regulations and conscience as sources of ethical guidance; accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding; corporate governance.
7. Probity in Governance: Concept of public service; Philosophical basis of governance and probity; Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
8. Case Studies on above issues

## **ETHICAL lessons from Lal Bahadur Shastri**

**News:** Marking Lal Bahadur Shastri ji's birth anniversary, Prime Minister Narendra Modi and President Droupadi Murmu paid tributes to the former PM at Vijay Ghat on 2<sup>nd</sup> October.

### **What can we learn from Shastri ji?**

- He protested against the **caste system**. As he didn't believe in the caste system, he gave up his surname as a young schoolboy. The title "Shastri" was bestowed upon him after graduating from Kashi Vidyapeeth, as a mark of scholarly achievement. During the adverse situations too, he came forward, made himself accountable and showed the signs of a leader who led from the front.
- He was a **true patriot** from a very tender age. As a young boy (16), he was inspired by Mahatma Gandhi and his call to join the Non-cooperation movement.
- He believed in **simple living** and **high thinking**. When he married, at the insistence of his in-laws to accept dowry, he took a charkha and some kind of cloth. Even when he passed away, he reportedly





had no property in his name and left behind a few books and dhoti-kurta.

- Shastri ji resigned as the railways minister following a rail accident at Ariyalur (Tamil Nadu) in 1956, out of **moral responsibility**.
- When **India was facing food crisis** after US refused to send wheat, Shastri ji had **first appealed to his children** before making a public announcement to go on a strict fast. Only after he was convinced that children in the family could observe fast, he appealed to the people of the country to go without food for some time.
- Shastri ji had a Chevrolet Impala car for official use, which his son once used for a drive. When Shastri ji learned about it, **he asked his driver to check the distance** the car was used for and **later deposited the money in the government account**.
- He was a very **decisive leader** who had complete faith in his military personnel to go out for a full-fledged war against Pakistan in 1965. He was hailed as a hero for successfully leading India in the Indo-Pak war.
- On a visit to a textile mill as Prime Minister, when the owner offered to gift him expensive sarees, Shastri insisted **on buying and paying for only those he could afford**. He also had an undue promotion for his son overturned.
- Lal Bahadur Shastri ji had more than thirty years of devoted service behind him. Over the course of this time, he earned a reputation as a man of exceptional integrity and skill. He was a man of the people who understood their language; he was modest, tolerant, and had great inner strength and resoluteness. He was also a visionary leader who moved the nation forward.

# Short News for Prelims

## 36<sup>th</sup> National Games

**News:** Prime Minister Narendra Modi officially declared open the 36th National Games in Ahmedabad on Thursday. The Games, which started on September 29, will continue till October 12. Gujarat is hosting the National Games for the first time. In this edition, about 7,000 athletes from 28 states and eight Union territories are competing for medals in 36 events.



### Background:

- The Olympic movement, which garnered the attention of the nation in the 1920s, includes the National Games. The National Games in India were first envisioned as the Indian Olympic Games with the goal of promoting Olympic sports in the nation.
- The first edition of the Indian Olympic Games at Lahore in an undivided Punjab in 1924. The Indian Olympic Games were named as National Games beginning in 1940.

### Key Details about 36<sup>th</sup> National Games:

- The National Games, being held after seven years, will witness India's best athletes compete in 36 disciplines in six cities of Gujarat.
- The Official mascot for the 36th National Games is "SAAVAJ", it portrays a sportsman's most prominent personality traits of self-

confidence, vigor, a strong sense of motivation, an inner desire to succeed, a strong sense of focus, a natural leader, and a goal setter

- Saavaj in Gujarati means Cub. The mascot represents India's cultural heritage, while also giving a glimpse of the rapidly growing India, which is set to become a world leader again.

## Ranipur Wildlife Sanctuary

**News:** The Uttar Pradesh (UP) cabinet approved the notification of the state's **fourth tiger reserve** in the Ranipur Wildlife Sanctuary (RWS) in Chitrakoot district.

### About:

- RWS founded in 1977, has no resident tiger. However, it is an important corridor for the movement of tigers, according to the Status of tigers, co-predators and prey in India report by the National Tiger Conservation Authority (NTCA).
- This will be the **54th Tiger Reserve** in India. Guru Ghasidas National Park of Chhattisgarh is the 53rd Tiger Reserve in India.

**Other TR in UP – Dudhwa National Park and Tiger reserve, Pilibhit Tiger Reserve and Amangarh Tiger reserve.**

## Thamirabarani River

**News:** The district administration of Tirunelveli in Tamil Nadu along with Ashoka Trust for Research in Ecology and the Environment (ATREE) are using a 'hyper local' approach called TamiraSES to restore the Thamirabarani River.

### About Thamirabarani River:

- It is the only perennial river in Tamil Nadu. Its source is in **Pothigai** Hills of Western Ghats that falls into Tamil Nadu and drains into the Gulf of Mannar (BOB).
- It offers a source of historical and cultural significance to the people of Tamil Nadu and also finds a mention in Sangam Literature.

#### About Project:

- Aims to restore socio-ecological systems of the river system which will provide conditions for native biodiversity to thrive.
- Five social ecological observatories will be set up as part of the first phase of the project. These will serve as pilots to scale up from the learnings from these sites.
- The idea is to rejuvenate not just the Thamirabarani but all the water bodies in the riverscape of Tirunelveli.

## Operation Garuda

**News:** The **Central Bureau of Investigation** has launched a multi-phase 'Operation Garuda' against **illicit drug trafficking network**.

#### About:

- A **CBI release** said the operation seeks to disrupt, degrade and dismantle drug networks with international linkages through rapid exchange of criminal intelligence on drug trafficking and coordinated law enforcement actions across international jurisdiction through Interpol.
- This global operation was initiated in close coordination with Interpol and Narcotics Control Bureau, for combating the smuggling of illicit drugs and psychotropic substances, with special focus on Indian Ocean region.

## NDMA

**News:** The National Disaster Management Authority (NDMA) celebrated its 18th Formation Day on September 28, 2022, in New Delhi.

- The theme for the Foundation Day was "**Volunteerism in Disaster Management**".

#### About:

- The National Disaster Management Authority (NDMA) is India's apex statutory body for disaster management.
- The Prime Minister is its chairperson and it has nine other members.

- The primary responsibility for the management of disaster rests with the State Government concerned. However, the National Policy on Disaster Management puts in place an enabling environment for all.
- India is also a signatory to the Sendai Framework for Disaster Risk Reduction (SFDRR) that sets targets for disaster management.

## India Swacchta League

**News:** **Chandigarh** emerged as winner along with **Navi Mumbai** in the **10 lakh plus** population category of the Indian Swacchta league. (ISL)

#### About:

- The Union Ministry of Housing and Urban Affairs initiated the Swachh Amrit Mahotsav, which started with the Indian Swachhta League.
- The Indian Swachhta League is India's first inter-city competition led by youth toward building Garbage Free Cities.
- Citizens across India were invited to search for their cities on My Gov and register to join their city teams in the Swachhta activities that have been planned.
- SBM-Urban 2.0 is a maiden edition of the 'Indian Swachhta League' which has mobilized more than 5,00,000 youth, citizen volunteers, and celebrity icons across the country to join the first ever Indian Swachhta League and to work together towards the mission's goal of making cities clean, green, and garbage-free.

## Deep Sea Port

**News:** **Tajpur** in West Bengal is set to be West Bengal's first deep sea port.

#### What are Deep Sea ports?

- A deep-sea port is usually made up for the usage of **very large** and **heavily loaded** ships.
- The depth of water helps gets them access to the deep-water ports.

#### Who will undertake the project?

- Adani Ports and Special Economic Zone (APSEZ), which is India's largest port operator and a wholly owned subsidiary of Adani Ports will be taking on this development project.

### Key Details:

- Tajpur will be the second-biggest port in West Bengal, after Shyama Prasad Mukherjee Port.
- It will enable a large 'Capesize', which is the largest class of cargo vessels and it will be a greenfield project.
- It will act as a maritime gateway for the entire north-eastern region.
- The North-eastern region will benefit as a hub of trade and investment and it is expected to ensure easier access to countries like Bangladesh, Nepal, Bhutan, Myanmar.

## Swachh Survekshan Gramin, 2022

**News:** **Telangana** won the first prize under the Large States category under Swachh Survekshan Gramin (SSG) 2022.

### About:

- The Swachh Survekshan Gramin award by the **Jal shakti ministry** ranks states and districts on the basis of their performance attained on key quantitative and qualitative Swachh Bharat Mission Gramin (SBM-G) parameters.
- It also takes into consideration the efforts of the rural community in the improvement of their sanitation status.
- Swachh Bharat Diwas is not a single event but a culmination of several activities/campaigns for the components of SBM-G phase II. The following activities were conducted as a run-up to the event – Swacchta Hi Seva and United India for Swacchata.
- Swachhta Hi Sewa (SHS) – A fortnightly campaign undertaken by the public offering “shramdaan” for sustaining cleanliness in the country.
- United India for Swachhata – A dedicated week-long intensified campaign for complete cleanliness ‘sampoorna swachhta’ in 9 states across the country.

### Key Details:

- In the **big states** category the first award for Swachh Survekshan Grameen was given to **Telangana**, second to **Haryana** and the third award was bagged by **Tamil Nadu**.
- In **small states** and **UTs category**, **Andaman and Nicobar** won the first award, Dadra and Nagar Haveli and Daman and Diu second and Sikkim got the third award.

## Jal Jeevan Mission Functionality

**News:** President Droupadi Murmu today conferred the awards for Swachh Survekshan Grameen 2022 and Jal Jeevan Mission Functionality Assessment at a function in New Delhi.

### Key Details:

- The awards for Functionality Assessment 2022 have been given after assessing the performance of **local water utilities** in the States and UTs. A functionality assessment exercise is undertaken every year by the **Jal Jeevan Mission** to understand the status of water service delivery in households.
- In this category, **Puducherry** bagged **first award**, Goa second and Tamil Nadu was given third award.

## Noble Prize in Literature

**News:** French author **Annie Ernaux** won this year's Nobel Prize in literature for blending fiction and autobiography in books that fearlessly reveal her experiences as a working-class woman to explore life in France since the 1940s.

### About:

- Ernaux, née Duchesne, was born in Lillebonne Normandy in 1940.
- She worked as a schoolteacher, and devoted herself to writing once she retired.
- More than 20 of her books have been school texts in France for decades.
- According to the jury, she was honored “for the courage and clinical acuity with which she uncovers the roots, estrangements and collective restraints of personal memory”.

### Her work:

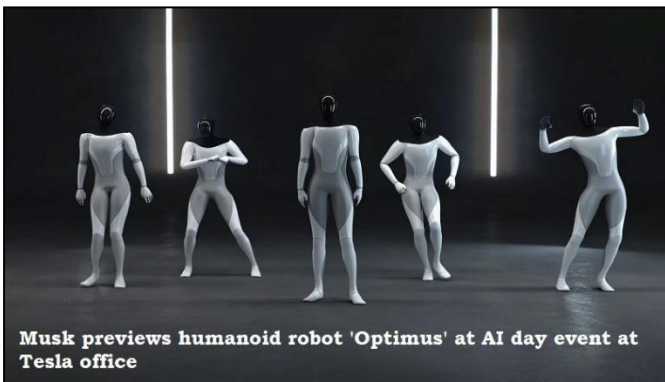
- “Cleaned Out”, was her first publication in 1974.
- She gained popularity in English speaking world in 2019, after her seminal work ‘The Years’. It later got shortlisted for the Man Booker international prize.
- Her book on her illegal abortion in the 1960s, ‘Happening’ (first published in 2001) has been in the limelight after abortion rights were curtailed in the US.



- Her 'A Girl's Story' (published in French in 2016), built on her own experiences at a children's camp, deals with the shaming an 18-year-old girl is subjected to for her sexuality.
- 'Getting Lost' (2022), which talks of her affair with a Russian diplomat - she was divorced, he was married is a rare clear-eyed account of female desire.

## Tesla's Optimus

**News:** Fans of Tesla and Elon Musk were enthralled by the unveiling of Optimus, a prototype humanoid robot, in California last week.



Musk previews humanoid robot 'Optimus' at AI day event at Tesla office

### About:

- Its name is Optimus - it's five feet eight inches tall (1.73 meters) and weighs 125 pounds (57 kilos).
- Optimus can walk, carry packages, water plants and move objects, although not very well.
- Elon Musk opened Tesla's AI Day 2022 by unveiling a prototype of its humanoid robot, which the company hopes to mass produce and sell for under \$20,000.
- The robot's shape and function are inspired by human beings, but also draw on Tesla's car manufacturing expertise. "It's a shift from robots on wheels to robots on legs," said an Optimus technician.

## Nobel Peace Prize 2022

**News:** The 2022 Nobel Peace Prize was awarded to human rights advocate Ales Bialiatski from Belarus, the Russian human rights organization Memorial, and

the Ukrainian human rights organization Center for Civil Liberties.

### About Ales Bialiatski:

- Ales Bialiatski is a Belarusian human rights activist, who is currently being held in prison without trial.
- He was one of the initiators of the democratic movement in Belarus in the mid-1980s.
- He is credited with founding the organisation Viasna (Spring) in 1996.

### About Memorial:

- Russian human rights organisation was established in 1987, by human rights activists in the former Soviet Union.
- Nobel Peace Prize laureate Andrei Sakharov and human rights advocate Svetlana Gannushkina were among the organization's founders.
- Memorial is based on the notion that confronting past crimes is essential in preventing new ones. It wanted to ensure that the victims of the communist regime's oppression would never be forgotten.

### About Center for Civil Liberties:

- Founded in Kyiv in 2007, it aimed at advancing human rights and democracy in Ukraine.
- They have been successful in influencing the formation of public opinion and public policy. They have been actively participating in international networks and solidarity actions to promote human rights.



## Primary Agri-Credit Societies

**News:** Union Home and Cooperation Minister said that primary agricultural credit societies (PACS) will be set up in all panchayats of the country.



### About:

- PACS are ground-level cooperative credit institutions that provide short-term, and medium-term agricultural loans to the farmers for the various agricultural and farming activities.
- It works at the grassroots gram Panchayat and village level.
- The PACS functioning at the base of the cooperative banking system constitutes the major retail outlets of short-term and medium-term credit to the rural sector.

### Functions:

- It encourages agriculturists to save, accepts deposits from them, makes loans to deserving borrowers, and collects repayments.
- It will carry out activities like the sale of gas and petrol and the storage and marketing of dairy and farm products to alleviate poverty and empower women.
- It helps its members by providing marketing facilities that could enhance the sale of their agricultural products in the market at the proper prices.
- Maintaining the supply of the hired light machinery for agricultural purposes.
- To arrange for supplying of agricultural inputs such as seeds, fertilizers, insecticides, kerosene.

## Modhera



**News:** The Gujarat government stated that the project will make Modhera the first village in India to become a net renewable energy generator.

### About:

- Prime Minister Narendra Modi declared Modhera village in Gujarat, which is famous for a centuries-old Sun temple built during the Chalukya reign, the **country's first 24x7 solar powered village** on Sunday.
- PM Modi will also lay the foundation for projects worth more than ₹3,900 crore in the village.
- The village has a ground-mounted solar power plant, and over 1,300 rooftop solar systems with 1kW capacity have been installed on houses to generate electricity. All of these solar systems are linked to a battery energy storage system (BESS).
- During the day, solar panels will provide power to the village, while in the evening, BESS, India's first grid-connected megawatt hour scale battery energy storage system, will provide power to the houses.

### Significance:

- People in the village can save 60% to 100% on their electricity bills with this move.

## DAKSH Application

**News:** The Reserve Bank of India (RBI) Governor Shaktikanta Das on Thursday launched a new 'SupTech' initiative called DAKSH.

### About:

- DAKSH is a web-based end-to-end workflow application through which RBI shall monitor compliance requirements in a more focused manner with the objective of further improving the compliance culture in Supervised Entities (SEs) like Banks, NBFCs, etc
- The application will also enable seamless communication, inspection planning and execution, cyber incident reporting and analysis, and provision of various MIS reports, among others, through a platform which enables anytime-anywhere secure access.
- DAKSH means 'efficient' and 'competent', reflecting the underlying capabilities of the application, the RBI said

## ECI freezes Shiv Sena's symbol

**News:** Recently The Election Commission barred the Shiv Sena factions led by former CM Uddhav Thackeray and current Maharashtra CM Eknath Shinde from using the party name and its election symbol.

### How are symbols allotted?

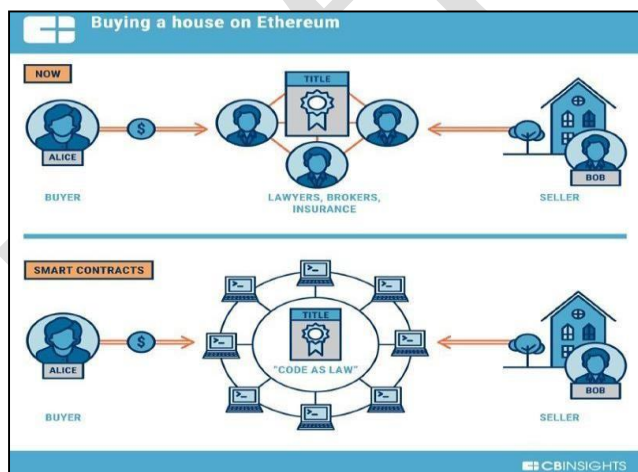
- A party/candidate has to provide a list of three symbols from the EC's free symbols list at the time of filing nomination papers.
- Among them, one symbol is allotted to the party/candidate on a first-come-first-serve basis.

### How ECI decides who gets the symbol?

- Whenever parties split, there are chances of a dispute arising over claims to its election symbol. The ECI adjudicates the matter, using Para 15 of the Symbols Order, 1968. This decision is binding on them. This applies to disputes in recognized national and state parties.
- For splits in registered but unrecognized parties, the ECI usually advises the warring factions to resolve their differences internally or to approach the court.

## Smart Contracts

**News:** Smart contracts let you execute automated actions on blockchains and are the backbone of the crypto industry.



### About:

- The crypto ecosystem sits on top of distributed ledgers, which are broadly called blockchains. Apart from recording and

verifying transactions, some crypto blockchains like Ethereum let users launch agreements or special actions that execute on their own. These are known as smart contracts and to create them effectively, programming languages are a must.

- Crypto exchanges, decentralized apps, the automated buying or selling of orders, and even NFT-based games often rely on smart contracts to run smoothly.
- A smart contract failure can cause platform outages, and exploitation of the codes could devalue the entire ecosystem.

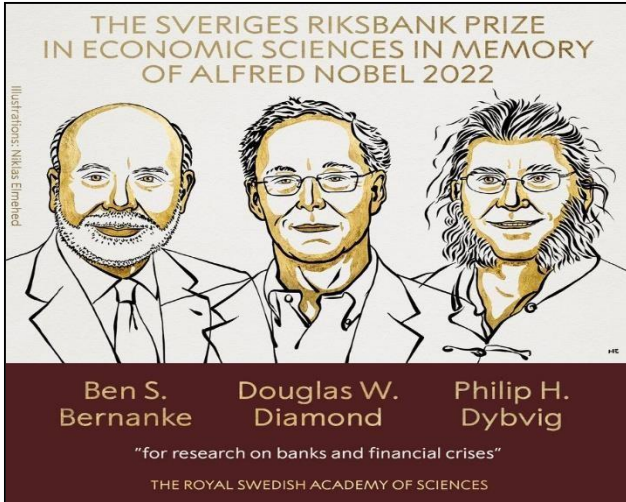
## Weapons Systems Branch

**News:** India's armed forces are set to get a major operational boost following the approval to set up a separate service — a Weapons Systems Branch (WSB) for the officers of the IAF.

### About:

- This is the first time since Independence that a new operational branch is being set up.
- The WSB will bring different weapons systems operators under one entity. It will streamline the operational employment of all specialist airborne and ground-based weapons systems.
- The WSB is expected to help the forces establish dominance across multiple domains.
- The new branch will result in a saving of more than ₹3,400 crore due to reduced expenditure on flying training.
- The branch will induct specialized cadre officers for handling the latest weapon systems.
- The WSB will bring the requirements of different branches of the forces under one head. This will make India's defence and strategic systems more efficient. As instances of duplication come down, it will help forces circulate information in a better way, leading to better defence outcomes.

## Nobel Prize in Economics 2022



### About:

- Ben S Bernanke, Douglas W Diamond and Philip H Dybvig have won the 2022 Nobel prize for economics on Monday for research on banks and financial crises.
- The work for which Bernanke, Diamond and Dybvig are being recognised has been crucial to subsequent research that has enhanced our understanding of banks, bank regulation, banking crises and how financial crises should be managed.
- The research presented by this year's laureates in economic sciences reduces the risk of financial crises developing into long-term depressions with severe consequences for society, which is of the greatest benefit to us all.

**Trivia** - Unlike the other prizes, the economics award wasn't established in Alfred Nobel's will of 1895 but by the **Swedish central bank** in his memory. The first winner was selected in 1969.

## Tele-MANAS

**News:** On the occasion of World Mental Health Day, the Tele Mental Health Assistance and Networking Across States (Tele-MANAS) initiative of the **Union Ministry of Health & Family Welfare** was launched.

### About:

- Tele-Manas is a **24X7 call centre**, which aims to increase access to mental healthcare across the country, including the hard-to-reach areas.

- The country-wide network will provide counselling, consultation with a specialist, and e-prescriptions.
- The programme includes a network of 23 tele-mental health centres of excellence, with **NIMHANS being the nodal centre**.
- Indian Institute of Technology (IIT) Bengaluru and National Health Systems Resource Center (NHSRC) will provide technical support.

## Slender Loris sanctuary

**News:** In a first in the country, **Tamil Nadu** government has notified Kaduvur slender loris sanctuary covering parts of Karur and Dindigul districts.



### About Slender Loris:

- The slender lorises (Loris) are a genus of loris native to India and Sri Lanka.
- Slender lorises spend most of their life in trees, traveling along the tops of branches with slow and precise movements.
- They generally feed on insects, reptiles, plant shoots, and fruit.
- IUCN Status – **Endangered**
- Wildlife protection act – Schedule I
- CITES – Appendix II

**Habitat** – tropical rainforests, scrub forests, swamps and semi-deciduous forests.

### Threats faced:

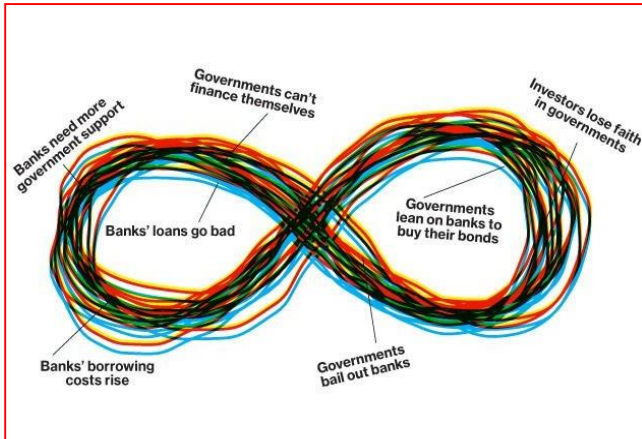
- Believed to have medicinal properties for which they are captured and sold. There is great demand for keeping these animals as pets for which they are illegally smuggled.



- Habitat loss, electrocution of live wires, and road accidents are other threats that have caused its populations to dwindle

## Doom Loop

**News:** Many economists have warned that Europe may be headed for a doom loop.



### What is Doom Loop?

- The doom loop is the **circle of vulnerability** where a **country's banking system can be severely hurt by volatility in the price of the sovereign bonds** they hold for reserves resulting in a contraction in lending provided by the banks.
- This contraction in credit, in turn, **slows the domestic economy**, resulting in a further deterioration in the price of the sovereign's bond issues as the government is forced to increase its borrowing to maintain services in a period when tax receipts are falling.

### How else can the circle be activated?

- The loop can also begin with the banking sector if a contraction in bank lending due to liquidity or non-performing loan problems sparks volatility in the government bond prices by slowing the economy and eroding confidence in the sovereign credit.
- The circle can also be activated by external forces such as a slowdown in global economic activity due to natural recession or trade friction.

## World Sloth Bear Day

**News:** The first World Sloth Bear Day was observed on October 12, 2022 to generate awareness and strengthen conservation efforts around the unique bear species endemic to the Indian subcontinent.



### About:

- Sloth Bear is one of the 8 bear species found across the globe.
- Sloth bears primarily eat termites and ants, and unlike other bear species, they routinely carry their cubs on their backs. They are also very fond of honey, hence their alternative name of "honey bear".
- Sloth bears do not hibernate.

### Conservation Status:

- IUCN – **Vulnerable**
- WPA, 1972 – Schedule I
- CITES – Appendix I

**Habitat** – Presently found in Indian sub-continent only. With over 90% of global sloth bear population found in India.

### Other Bear Species of India:

- **Asiatic Black Bear** – They are found across the Himalayas. IUCN – **Vulnerable**.
- **Himalayan Brown Bear**- IUCN - **Endangered**.
- **Sun Bear**- They are a very rare and elusive animal, and are **only found in north-east India**. IUCN – **Vulnerable**.

## JP Narayan

**News:** Union Home Minister unveiled a 15-foot statue of Jayaprakash Narayan or JP on his 120th birth anniversary at the socialist icon's birthplace, Sitab Diara village in Bihar's Saran district.

### About:

- He was the founding member of the Congress Socialist Party (CSP) in 1934.
- He formed the Socialist Party which was later merged with J B Kripalani's Kisan Mazdoor Praja Party to form the Praja Socialist Party in 1952.
- He led the Sampurn Kranti (Total Revolution) movement organized during Indira Gandhi's regime.
- He was disillusioned with political parties and called for communitarian democracy.
- He believed that parties were centralized in nature and susceptible to moral and financial corruption.

## Purple Revolution



**News:** Recently, the Union State Minister for Science and Technology stated that the Purple Revolution offers attractive Startup avenues. The **Ministry of Science and Technology** initiated the Purple Revolution or Lavender Revolution in 2016 through the **Aroma Mission** of the Council of Scientific and Industrial Research (CSIR).

### What is Purple Revolution?

- It aims to promote the indigenous aromatic crop-based agro-economy by shifting from foreign aromatics to homegrown kinds. First-time producers were offered free lavender seedlings as part of the goal.
- Key products – Lavender Oil, lavender water used to make incense sticks.

### About CSIR's aroma mission:

- It aims to bring about transformational change in the aroma sector by implementing targeted interventions in agricultural, processing, and product development in order to boost the aroma industry's growth and rural employment.

## SLBM Test

**News:** Nuclear-powered INS Arihant carries out successful launch of SLBM.

### About:

- INS Arihant, a 6,000-tonne submarine is the lead ship of India's Arihant class of nuclear-powered ballistic missile submarines built under the Advanced Technology Vessel (ATV) project. About:
- It completed India's nuclear triad (the capability to retaliate against a nuclear strike from land, air and sea).
- INS Arihant is propelled by an **83 MW pressurized light-water reactor** at its core with **enriched uranium fuel**.
- K-4 (range 750km) and K-15 (3500 Km) have been designed to be operated from the Arihant class of submarines.

### Importance:

- It will help in a robust, survivable and assured retaliatory capability in keeping with India's policy to have 'Credible Minimum Deterrence' that underpins its 'No First Use' commitment."

## Legal Rights given to Nature

**News:** As the world continues to fight climate change and the exploitation of nature, countries like Ecuador, Bolivia and New Zealand have awarded legal rights to natural entities.

### About:

- **New Zealand** - The Whanganui river becomes the first river in the world to be given legal status.
- **Ecuador** - The first country in the world to recognize the rights of nature (in 2008). It granted tropical forests, islands, rivers and air, legal rights to "exist, flourish and evolve". Also in April 2022 it became the first country to grant legal rights to individual wild animals.
- **Bolivia** - Bolivia granted all nature rights equal to that of humans in 2011. It established the Law of the Rights of Mother Earth.

## International E-Waste Day



**News:** Each year, International E-Waste Day is held on **14 October**, an opportunity to reflect on the impacts of e-waste and the necessary actions to enhance circularity for e-products.

**About:**

- According to the United Nations, in 2021 each person on the planet will produce on average 7.6 kg of e-waste, meaning that a massive 57.4 million tons will be generated worldwide.
- Only 17.4% of this electronic waste, containing a mixture of harmful substances and precious materials, will be recorded as being properly collected, treated and recycled.

**Theme for 2022 – “Recycle it all, no matter how small”**

## Indian Bisons

**News:** Sri Lanka recently asked India to translocate 6 Indian Bisons (Gaur) to reintroduce them in the island from where they became extinct by the end of 17th century.



**About:**

- The Indian Bison or Gaur is the **tallest species** of wild cattle found in India and largest extant bovine.
- Approximately 85% of the population is present India.

**Habitat:**

- More Gaurs are found in Western Ghats. Primary in Nagarhole National Park , Bandipur National Park, Masinagudi National Park and Biligirirangana Hills (BR Hills).
- Evergreen and moist deciduous forests.

**Conservation status:**

- IUCN – **Vulnerable**
- **Schedule I** of WPA, 1972.

## Wolf Warrior Diplomacy

**News:** Chinese aggressive posturing and tough approach to international relations is called Wolf Warrior diplomacy.

**About:**

- It is an unofficial term used to describe the aggressive and confrontational style of carrying out diplomatic communication, especially with Western Countries and also with India.
- The term is derived from the 2015 Chinese movie sequel called Wolf Warrior, which portrayed hard nationalism in the face of the western mercenaries.
- The emergence of Wolf Warrior diplomacy is primarily attributed to increasing authoritarianism in China and the deterioration in China-US relations.

## Data Centres

**News:** Data centre with a minimum capacity of **5 MW of IT load** will be eligible for infrastructure status.

**What are Data Centres and benefits of having infra status?**

- A data centre is a building, a dedicated space within a building, or a group of buildings used to house computer systems and associated components, such as telecommunications and storage systems.
- Presently, India has nearly 500 MW installed capacity for data centres.
- By providing it infrastructure status, such data centres will be eligible to receive institutional credits at lower rates for an extended duration.

## 61 BOBRNALHSM1

**News:** Union Minister for Railways inaugurated India's First Aluminum Freight Rake named - 61 BOBRNALHSM1 at Bhubaneswar Railway Station.



#### About:

- It is a dedicated effort for the Make in India program as it has been fully designed and developed indigenously in collaboration with RDSO, HINDALCO and Besco Wagon.
- The iron industry consumes a lot of Nickel and Cadmium which comes from imports. So, a proliferation of Aluminum wagons will result in less import. At the same time, this is good for the local aluminum industry.
- It will reduce carbon footprint. As per an estimate, around 15 million tonnes of carbon emissions can be saved in a year even if just 5% of the 2 lakh railway wagons that the Central government plans to introduce are aluminum-made.
- It would help the Indian Railways to achieve net zero Carbon Emissions by 2030 to become the world's largest Green Railway
- The new aluminum rakes are reportedly 180 tonnes lighter than the current steel rakes. The carrying capacity of the new design is said to be 5%-10% more than their steel counterparts. More importantly, they consume less energy with relatively negligible wear and tear to rolling stock and rails.

## KAMIKAZE Drones

**News:** It was alleged that Iranian-made Kamikaze drones were deployed by Russia in the capital city of Ukraine Kyiv.

#### About:

- These are drones containing explosives that can be flown directly at targets such as a tank or a group of troops that are destroyed when it explodes.
- The drones derive their name from the Kamikaze pilots of Japan during World War 2 primarily against the US. These pilots conducted suicide attacks by intentionally crashing their planes filled with explosives into enemy targets.

## Nihonshu

**News:** The Embassy of Japan, New Delhi, has filed an application seeking a Geographical Indication (GI) tag for Nihonshu/Japanese sake.

#### About:

- In Japan, Nihonshu is regarded as a special and valuable beverage made from fermenting rice.
- People traditionally drink nihonshu on special occasions, such as festivals, weddings or funerals, but it is also consumed on a daily basis. It is an integral part of the lifestyle and culture in Japan.

## World Green City award 2022

#### About:

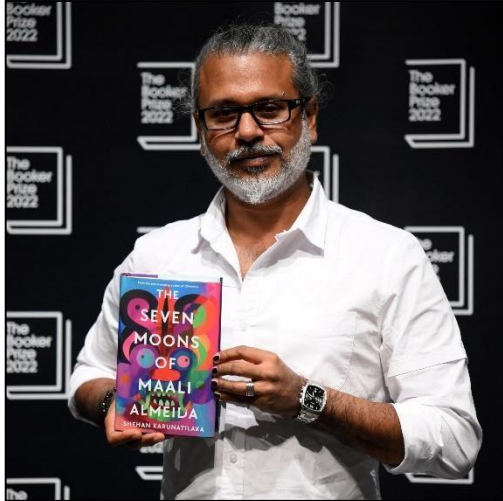
- **Hyderabad City** has overall won "World Green City Award 2022" in the category "Living Green for Economic Recovery and Inclusive Growth".
- The award was given at the International Association of Horticulture Producers (AIHP) 2022 World Green Cities Awards which was organised in Jeju, South Korea.

## Booker Prize 2022

**News:** Sri Lankan writer **Shehan Karunatilaka** won the Booker Prize 2022.

- He won the prize for his novel "**The Seven Moons of Maali Almeida**", about a dead war photographer on a mission in the afterlife.

- The book was published in the subcontinent as **Chats with the Dead**.



### What is the Booker Prize?

- The Booker Prize is the world's leading literary award for a **single work of fiction**.
- Founded in the UK in 1969, it was initially awarded to Commonwealth writers and now spans the globe, and it is open to anyone regardless of origin.
- Each year, the Booker Prize is awarded to what is, in the opinion of our judges, the best sustained work of fiction written in English and published in the UK and Ireland.
- The winning book is a work that not only speaks to our current times, but also one that will endure and join the pantheon of great literature.

### Agni Prime

**News:** Defence Research and Development Organisation (DRDO) successfully test-fired indigenously-developed new generation **medium-range** ballistic missile Agni Prime (Agni-P) from the APJ Abdul Kalam Island at Odisha coast.

#### About:

- It is a **two-stage** canisterized missile. Since it is canisterized, it can be launched from rail or road, be stored for longer periods and can be transported as per operational requirements.
- It is the latest and sixth variant of the Agni series missiles (under IGMDP - Integrated Guided Missile Development Program).

- With multiple independently targetable re-entry vehicles, the missile is capable of delivering a number of warheads at separate locations at a distance of **1,000 - 2,000 km**.
- The 10.5 metre tall missile with a diameter of 1.2 metre can carry warheads up to 1.5 tonne.
- It can perform high maneuvers while homing in on targets.
- It has a dual redundant navigation and guidance system.
- The Agni-P missile would further strengthen India's credible deterrence capabilities.

### Great Indian Bustards

**News:** The recent sighting of Great Indian Bustards (GIBs) deep in Pakistan's Cholistan desert has given rise to speculation that it might have flown from India's Desert's National park to Pakistan.

#### About:

- The Great Indian Bustard (*Ardeotis nigriceps*), the State bird of Rajasthan, is considered India's most critically endangered bird.
- It is considered the flagship grassland species, representing the health of the grassland ecology.
- Its population is confined mostly to Rajasthan and Gujarat with small populations found in Maharashtra, Karnataka and Andhra Pradesh.

#### Protection Status:

- IUCN status – **Critically Endangered**
- CITES – Appendix I
- Wildlife Protection Act – Schedule I

#### Protected Areas:

- Desert National Park Sanctuary — Rajasthan
- Rollapadu Wildlife Sanctuary – Andhra Pradesh
- Karera Wildlife Sanctuary– Madhya Pradesh

### Mission Schools of Excellence

**News:** Prime Minister Modi recently launched Mission Schools of Excellence at Trimandir, Adalaj, Gujarat.

#### About:



- The Mission will help strengthen education infrastructure in Gujarat by setting up -New classrooms, Smart classrooms, Computer labs and Overall upgradation of the infrastructure of schools.
- 50 thousand new classrooms along with more than one lakh smart classrooms are going to be built.
- 5G internet will help in making the best content, pedagogy and teacher available to everyone, including in remote areas.
- Gunotsav - A festival focussing on the quality of education. In this aptitude, the skills and abilities of the students were evaluated and proper solutions were suggested. A more advanced technology-based version of the 'Gunotsav' is functioning in Vidiya Sameeksha Kendra in Gujarat.

## Durgavati Tiger Reserve

**News:** Madhya Pradesh Wildlife Board recently approved a new reserve for tigers of Panna Tiger Reserve (PTR), one-fourth of which will get submerged due to the linking of the Ken-Betwa rivers.

- The 2,339 square kilometres new tiger reserve, to be called Durgavati Tiger Reserve, will spread across Narisinghpur, Damoh and Sagar districts.

### About:

- It will have 1,414 sq km of land as core area and 925 sq km area of buffer zone.
- The tigers will be shifted to the new reserve by encouraging their natural movement via a green corridor that will link it with Panna Tiger Reserve.
- The proposal is in line with the National Tiger Conservation Authority's order urging Uttar Pradesh and Madhya Pradesh governments to notify new tiger reserves to manage wildlife in Panna Tiger Reserve, which will be impacted by the Ken-Betwa river linking project.
- Earlier, in September, the Uttar Pradesh Cabinet approved the notification of fourth tiger reserve in the state in the **Ranipur Wildlife Sanctuary (RWS)**, which is

frequented by tigers from the Panna Tiger Reserve.

## Sukapaika River

**News:** The Sukapaika River which stopped flowing 70 years ago, is set to be rejuvenated as the Odisha government has started working on its revival plan following a recent direction from the National Green Tribunal (NGT).

### About:

- Sukapaika is one of the several distributaries of the mighty Mahanadi river in Odisha.
- It branches away from the Mahanadi at Ayatpur village in Cuttack district and flows for about 40 kilometres (km) before rejoining its parent river at Tarapur in the same district.
- Sukapaika river is an important system of the Mahanadi to control floodwater and maintain the flow in the river as well as the Bay of Bengal.

## Global Food Security Platform

**News:** International Finance Corporation has launched the Global Food Security Platform, to support the private sector for sustainable production and delivery of food stocks to countries affected by food instability.



### About IFC:

- It is an international financial institution (established in 1956 as a private sector arm of World Bank Group) that offers investment, advisory, and asset management services to encourage private sector development in developing countries.
- It is a member of the World Bank Group.
- HQ – Washington DC, United States.