

# Current Affairs Update (Oct 28-Nov 4)

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## National

### Images of gods and Goddesses on Indian coins

- India has a long tradition of coinage with images of gods and goddesses.
- **Kushanas:** According to historians, the Kushans, who hailed from the Central Asian region and ruled till the 3rd century AD, were the **first to use the image of Goddess Lakshmi on their coins**, along with **Ardochsho**, the Iranic Goddess of wealth.
- **Gupta rulers:** Similarly, on the coins of the Gupta Empire one can witness forms of Durga, Laxmi and Ganga.
- **Mohammed Ghori:** coins with Goddess Lakshmi issued by Mohammed bin Sam, known to us as Mohammed Ghori after defeating Prithviraj Chauhan in the battle of Terrain in 1192 AD.
- **Vijayanagara Kingdom: Harihara –II** (1377-1404) introduced coins that had Brahma-Saraswati, Vishnu-Lakshmi and Shiva-Parvati.
- **British Raj:** The British East India Co. at Madras Presidency minted coins labelled as the **Three Swamy Pagoda**, which depicts Lord Balaji flanked by Sridevi and Bhudevi on either side.
- **French and Dutch:** The tradition of minting coins to win the confidence of local people continued when the French and Dutch minted coins showing **Vishnu** between 1715 and 1774 and **Goddess Kali** in the late 17th century.

### One Nation, One Uniform for police

Recently in line with his broader attempt to introduce a uniform set of policies across the country PM has suggested 'One Nation, One Uniform' for police forces.

#### Who decides on uniforms for the police?

- **Law and order are part of state subject:** Both '**public order**' and the '**police**' are placed in List II (**State List**) of the **Seventh Schedule** of the Constitution: Thus each state has the liberty to decide on the uniform.
- **Variation in Uniform:** While police personnel in India are often associated with the **colour khaki**, their uniforms do **differ in varying degrees in different regions**.

## Equal pay for men and women cricketers

In a landmark move, the Board of Control for Cricket in India (BCCI) announced that it will be implementing a **new pay equity policy for its contracted women cricketers**, effectively paying men and women cricketers the same match fees.

**Pay equity** is also known as **equal pay for work of equal value**. That means if two different jobs contribute equal value to their employer's operations then the employees in those positions should receive equal pay.

### Is India the only country to bring pay parity in sports?

No, the first country to do so **was New Zealand in July 2022**. New Zealand Cricket, the governing body for professional cricket in the country, and the players' association signed a **five-year deal** so that **both international and domestic level-women players will receive the same match fees as men across all formats and competitions**.

## Raskhan and Taj Bibi

Recently tourism department of Uttar Pradesh has redeveloped the tombs of **Raskhan** and **Taj Bibi** (both devotees of Lord Krishna) as a tourist complex with an open-air theatre.

### Who was Raskhan?

**Raskhan** or **Syed Ibrahim Khan** was a **16th-century** Sufi Muslim poet born either in Amroha or Hardoi in Uttar Pradesh. Raskhan was his **pen name in Hindi**.

- In his early years, he became a follower of **Sri Krishna** and learned the religion from **Goswami Vitthalnath**. His poetry is in the form of **Doha, Padawali and Savayya**.
- **Writings:** Raskhan's Khariboli writings are numerous, the five most important being the **Sujana Raskhana**, the **Premavatika (most popular)**, the **Danalila**, the **Astayama** and a collection of **Padas** (rhymed couplets).

**Taj Bibi:** aka the '**Mughal Mirabai**', was born in the **17th century** as the daughter of a Muslim nobleman **Padna Khan**.

- Taj Bibi was **married to Emperor Akbar** and was appointed by the Mughals to protect the **Gokul area**.
- She **wrote poetry** during the Mughal time when the ruling class belonged to the Muslim religion.

## Should governments sell liquor and run lotteries?

**Kerala Governor** recently criticized the State government for relying heavily on **liquor** and **lottery** to generate revenue.

### Should the government sell sin goods?

- **The role of the state is to provide public goods:** The consumption of sin goods is instead linked with 'public bad'.
- **Negative effects of sin goods:** Disproportionately impact the weaker sections of society.
- **Public health concern:** The rising demand for alcohol is a public health concern
- **Revenue-maximizing objective:** It takes precedence over the public interest.

### How can the state play a positive role?

- **Raising the tax rates and prices of sin goods:** It will discourage people from consuming them in the long run.
- **Developmental programmes:** Taxes collected from a significant source can be used for development programmes.

### Prevalence of superstitious killings in India

- **NCRB Data:** According to NCRB data for 2021, **six deaths** were linked to human sacrifices, while witchcraft was the motive for **68 killings**. In 2020, India saw **88 deaths** due to witchcraft and **11 died** as part of 'human sacrifices'.
- **Maximum prevalence:** Chhattisgarh (20), followed by Madhya Pradesh (18) and Telangana (11) recorded the maximum number of witchcraft cases.

### Legal provisions against superstitions in India:

- **There are no nationwide legislations** to deal with superstitious practices, black magic, or human sacrifice, in particular, certain sections of the Indian Penal Code enlist penalties applicable for such incidents.
- **IPC: Section 302** (punishment for murder) takes cognisance of human sacrifice, but only after the murder is committed.
- **Article 51A (h)** of the Indian Constitution makes it a fundamental duty for Indian citizens to develop a scientific temper, humanism and the spirit of inquiry and reform.
- **Drugs and Magic Remedies Act of 1954** also aims to tackle the debilitating impact of various superstitious activities prevalent in India.

## The tragedy in Morbi

The century-old cable suspension bridge in Gujarat's Morbi, collapsed into the river, sending hundreds plunging into the water. The bridge was a tourist attraction and had long been hailed as a magnificent engineering marvel.

**Technical reasons for the collapse of the 19th Century pedestrian bridge are:**

1. Overcrowding
2. Crowd-induced vibrations
3. End of the 'service life'

**Probable cause of such disasters:** Coming out of the long restrictions on travel necessitated by the COVID-19 pandemic, people all over the world appear to be binging on travel and outings.

- A **stampede in Seoul in South Korea** killed 154 people last week.
- In India also, record numbers of people are thronging tourism and pilgrimage spots.

## What is a suspension bridge?

As the name implies, suspension bridges suspend the roadway by cables, ropes or chains from two tall towers. In simple words, it is a **type of bridge in which the deck is hung below suspension cables on vertical suspenders.**

## How does it work?

Suspension bridges **depend on the balance of the forces** of compression and tension.

- The design ensures that the **load on the suspension cables is transferred to the towers at the two ends**, which transfer them further by vertical compression to the ground by way of the anchorage cables.
- All of this balancing has to happen **within the permissible weight restrictions for the bridge.**

## Two-finger test

The **Supreme Court** declared that any person conducting the invasive '**two-finger**' or '**three-finger**' **vaginal test** on rape or sexual assault survivors will be found guilty of misconduct.

**Two-finger test:** The test is conducted to check whether the victim has had recent sexual intercourse, the victim of rape or sexual assault.

**SC said:**

- **The test has no scientific basis:** It neither proves nor disproves allegations of rape.
- Court also ordered the **two-finger test to be removed from the syllabus of medical education.**
- **Guidelines:** The court ordered that the guidelines be circulated to private and government hospitals. **The Ministry of Health and Family Welfare guidelines for health providers** forbid the application of the two-finger test.
- **2013 SC order:** Two-finger test and its interpretation violate the right of rape survivors to privacy, physical and mental integrity and dignity.

### Chhath pooja

- Chhath Puja, an **ancient Hindu Vedic festival**, is dedicated to the solar deity **Surya and Shashthi Devi.**
- Thanking them for bestowing life on earth, as part of the tradition, women (and some men too) fast for the well-being of their sons and the happiness of their families.
- Chhath Puja is also known as **Pratihara, Dala Chhath, Chhathi and Surya Shashthi.**
- **Primarily observed** in the states of **Bihar, Jharkhand and Uttar Pradesh**
- **Festival period:** worshipping of the Sun God spans four days.

### Amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021

The **Ministry of Electronics and IT** notified amendments to IT Rules, 2021 aimed at protecting the rights of **Digital Nagriks (citizens).**

#### Key Amendments:

- **Legal obligation on intermediaries:** Take reasonable efforts to prevent users from uploading content that intentionally communicates any misinformation or information that is patently false or untrue. **72-hour time** frame for content removal instead of 24 hours.
- **Regional languages:** For effective communication of the rules and regulations of the intermediary, communication should be done in regional Indian languages as well.
- Removing the words '**defamatory**' and **libellous**. Whether any content is **defamatory or libellous** will be determined through **judicial review.**
- To deal particularly with **misinformation**, and **content** that could incite violence between different religious/caste groups.
- **Respect rights:** The rules have made it explicit for the intermediary to respect the rights accorded to the citizens under **Articles 14, 19 and 21.**

- **Grievance Appellate Committee(s):**
  - It will be established to allow users to appeal against the inaction or decisions taken by intermediaries on user complaints.
  - Users have the right to approach courts for any remedy.

### First Women Inspector General of CRPF

- For the first time in the history of Central Reserve Police Force (CRPF), two women officers reached the rank of Inspector General (IG).
- Two women officers who were recently promoted to the rank of Inspector General are IG Seema Dhundiya and IG Annie Abraham.
- While **IG Seema Dhundiya** will head the Bihar Sector of CRPF, **IG Annie Abraham** will head the Rapid Action Force (RAF).

## International

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### Russia withdraws from Black Sea Grain Initiative

- Russia recently pulled out of the Black Sea Grain Deal, which was launched to mitigate food inflation caused by conflict in Ukraine.
- The Black Sea Grain Initiative was an agreement between Russia and Ukraine with Turkey and the United Nations.
- It sought to create a safe passage of food grains exported from Ukraine, which is currently in war with Russia.
- Under this agreement, export of grain, food and fertilizers will be allowed to resume from Ukraine via a “safe maritime humanitarian corridor” from three key Ukrainian ports i.e., Chornomorsk, Odesa, and Yuzhny/Pivdennyi.

### New President of Brazil

The leftist leader **Lula da Silva** recently made a comeback as the new President of Brazil after defeating incumbent far right President Jair Bolsonaro.

## Science-Tech & Environment

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### Terai Elephant Reserve

- The Indian Government approved the establishment of Terai Elephant Reserve in **Uttar Pradesh**.

- The Terai Elephant Reserve will be established in **Dudhwa-Pilibhit** in Uttar Pradesh. It will span across 3,049 sq km area.
- It will be the **33<sup>rd</sup> elephant reserve** to be set up in India.
- It will be in the joint forest regions of Dudhwa and Pilibhit tiger reserves that are involved in the conservation of tiger, Asian elephant, swamp deer and one-horned rhinoceros.
- It is the third elephant reserve to get approval from the Union Environment Ministry in the past three months under Project Elephant, with the other two being **Lemru in Chhattisgarh** and **Agasthyamalai in Tamil Nadu**.

### UP gets its fourth tiger reserve

- **Ranipur Tiger Reserve** in Uttar Pradesh has become the **53<sup>rd</sup> tiger reserve in India**. As of right now, **the RWS in the Chitrakoot district has no tigers of its own**
- The Ranipur Tiger Reserve in the Chitrakoot district is the **fourth in the state**.
- The other tiger reserves in Uttar Pradesh **include Dudhwa, Pilibhit, and Amangarh** (a buffer of **Corbett** Tiger Reserve).

### Senna spectabilis

An invasive species, **Senna spectabilis**, an exotic tree, has taken over between 800 and 1,200 hectares of the buffer zones of the Mudumalai Tiger Reserve (MTR) in the picturesque Nilgiris hill district.

#### What is the 'Invasive species'?

An invasive species is an organism that is not indigenous, or native, to a particular area. Invasive species can cause great economic and environmental harm to the new area.

#### Senna spectabilis:

It was introduced as an **ornamental species** and for use as firewood from South and Central America. The species has become highly invasive in the Sigur plateau in both the core and buffer zones of the MTR.

### Amur falcon hunting banned in Manipur

- The hunting, killing and sale of **amur falcons** have been banned in Manipur.
- Locally known as **Akhuipuina**, the amur falcons arrive mainly in Manipur and Nagaland on its southbound migration from breeding grounds in North China, Eastern Mongolia and far-east Russia en route to its wintering grounds in South Africa.
- Over two lakh amur falcons come each year to Manipur alone.

#### Related laws:

- **The Manipur Wildlife (Protection) Act 1972:** “The Act has made it clear that these migratory birds cannot be hunted, sold or killed. Those who disobey it will be pulled up”.
- The migratory bird is protected under the **Wildlife Protection Act 1972** and included under **Schedule IV**.
- Hunting of the birds or possessing their meat is punishable with imprisonment of up to three years or a fine of up to Rs 5,000.
- **IUCN Red List Status:** Least Concern

## Glyphosate

Government has restricted the use of the Herbicide glyphosate to authorized pest control operators, attracting criticism from industry bodies.

**Glyphosate:** It is a non-selective **herbicide (kills both ally types of plants)**. It is also used to **regulate plant growth and ripen specific crops**. It is **banned in 28 countries**, including Australia, Canada, Brazil, Germany, Italy, Netherlands and Sri Lanka, as it may be **carcinogenic** (as per a WHO study) and remains as a residue in the environment for up to 6 months.

**Usage of glyphosate in India:** It is widely used in **plantation agriculture**. It is also used to control weeds in **afforestation** activities and in areas along irrigation channels, Railway tracks etc. It may also be combined with **BT cotton**, leading to high usage in **Deccan belts**.

## Polluter Pays Principle

The National Green Tribunal has slapped thousands of crores of fines on seven states on Supreme Court directions, totalling around **Rs 28,180 crore** and about Rs 2,000 crore in other cases **over waste**.

The ‘polluter pays’ principle is the commonly accepted practice that **those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment**.

**How does NGT calculate the penalty amount?**

- The NGT has equated the amount of penalty fixed on the states based on the “**polluter pays principle**” to **environmental compensation and the cost of restoration**.
- The compensation for untreated liquid waste (sewage) was determined to be Rs 2 crore per million litres per day (MLD) and Rs 300 per tonne for unprocessed legacy waste.
- The interesting thing is **that it is the responsibility of the states to keep track of violations committed**, as per the polluter pays principle while calculating the penalty.

## Two more Indian beaches get ‘Blue Flag’ certificates

Two more Indian Beaches both in Lakshadweep, (Minicoy Thundi beach and Kadmat beach) get coveted International Blue Flag Certification. India now has **12 Blue Flag beaches**.



Other beaches in the blue list are Shivrajpur (Gujarat), Ghoghla (Diu), Kasarkod and Padubidri (Karnataka), Kappad (Kerala), Rushikonda (Andhra Pradesh), Golden beach (Odisha), Radhanagar (Andaman and Nicobar Islands), Kovalam (Tamil Nadu) and Eden (Puducherry).

#### What is the Blue flag certification?

- Blue Flag certification is a globally recognised eco-label accorded by the “**Foundation for Environment Education in Denmark**” based on **33 stringent criteria**.
- **Certification awarded by** an international jury comprising members of the **United Nations Environment Programme (UNEP), United Nations World Tourism Organisation (UNWTO), and International Union for the Conservation of Nature (IUCN), besides FEE.**
- It was **started in France in 1985**. Certification is **awarded annually**.
- **Benefits: Neat and clean beaches** are an indicator that the coastal environment is in good health and the Blue Flag certification is a global recognition of India’s conservation and sustainable development efforts.

#### What is the ‘Blue Flag Beach’?

The ‘Blue Flag’ beach is an ‘**eco-tourism model**’. It marks our beaches as providing tourists and beachgoers with clean and hygienic bathing water, facilities/amenities, a safe and healthy environment, and sustainable development of the area.

#### What is CAR T-cell therapy?

- It is a type of treatment in which a patient’s T cells (a type of immune cell) are changed in the laboratory so they will bind to cancer cells and kill them.
- CAR-T cells are a new form of, immunotherapy, itself a fledgling branch of cancer treatment.
- It entails re-engineering the body’s T immune cells with some genetic material so that they selectively target cancer cells for destruction.

**Why in news? The eight-year-old got** the treatment as part of the safety trials for India’s first indigenously made CAR-T cells — a joint effort between IIT-Bombay and Tata Memorial Centre, Mumbai.

#### Sandalwood spike disease

Sandalwood spike diseases which hitherto were confined mainly to forest areas, started spreading to commercial areas.

#### Sandalwood spike diseases:

- **Cause:** The disease is caused by phytoplasma — **bacterial parasites** of plant tissues — which are transmitted by insect vectors.

- **Origin:** the disease was first reported in Kodagu in 1899.
- **Symptoms:** The sandalwood trees dry up once affected by SSD. Leaves turn thin and yellow and no new leaves will sprout. Within four years, the tree dies.
- **Treatment:** As of now, no cure exists for the disease. Hence, the infected tree has to be cut to reduce the spread of the disease.
- **Concerns:** Every year about **1% to 5%** of sandalwood trees are lost due to the disease.

### Humpback Whale

- Every year, an estimated 40,000 humpback whales leave the freezing waters of Antarctica on the world's longest mammal migration.
- They make their way up Australia's east and west coasts to the tropics before returning, calves in tow, a couple of months later. However, they get caught up in the fishing gear nets and get injured or die.
- **Humpback whales (currently least concern at IUCN)** were hunted to near extinction last century. Since bans on whaling, however, the local population has bounced back into the tens of thousands, experts say.
- **Named after the distinctive hump** in front of their small dorsal fin, humpback whales often feed in large groups and are famous for their **singing ability**.

### What is a satellite phone?

- A satellite phone is a telephone that can connect to orbiting satellites.
- Similar to terrestrial mobile phones, they can connect to voice and short messaging services as well as low bandwidth Internet access.
- Satellite phones can connect from anywhere as they are directly connected to satellites around the world and do not depend on terrestrial mobile networks.
- Satellite phones usually cover most of the planet with fairly robust connectivity.

### What's wrong with carrying a satellite phone?

- It's not legal to carry a satellite phone in India unless you have permission.
- Restrictions on the possession and use of these phones were tightened after the Pakistani terrorists who attacked Mumbai in November 2008 **used these devices** to keep in touch with their Lashkar-e-Taiba handlers.

### 2022 Forest Declaration Assessment

- In 2021, deforestation rates have declined at the global level by 6.3 per cent compared to 2018-20 baseline.

- Though the rate of forest loss has deaccelerated, the climate goal of stopping deforestation by 2030 will not be achieved.
- In 2021, Brazil is the largest contributor of deforestation in the world. It recorded a 3 per cent increase in the deforestation rate last year compared to the 2018-2020 baseline.
- The deforestation rate in Bolivia and the Democratic Republic of the Congo is 6 per cent and 3 per cent respectively.
- Around **145 countries** have committed to stop and reverse deforestation and land degradation by 2030 at the COP26 in 2021.
- China recorded the largest net increase in green cover of 2.1 million hectares. India recorded 0.87 million hectares increase in tree cover.

### **COP 27 (2022 United Nations Climate Change Conference)**

The Government of **Egypt** will host the 27<sup>th</sup> Conference of the Parties of the UNFCCC (COP 27) at **Sharm El Sheikh**. This is the **fifth time** that a Conference of the Parties (COP) is being held in **Africa**.

The COP27 will focus on **three main objectives** – emission reduction, help countries prepare and respond to climate change and provide technical aid and funding for developing countries to respond to climate change.

#### **What major challenges will COP27 address?**

- Climate finance will be the major sticking point at the COP27. In 2009, the developed countries committed to provide 100 billion USD aid each year to developing countries by 2020 to help them minimise emissions and respond to climate change. This target was missed and deferred to 2023.
- Presently, developing countries are demanding payments for loss and damage caused by carbon emissions by developed economies. These countries argue that they suffer impact of climate change more than richer nations and have less financial capacity to address it. They are demanding the US and Europe to compensate for this. However, the US and Europe do not agree as they fear that if they compensate for their historic emissions, it could cost their economies billions of dollars for decades or even centuries into the future.

### **Aceclofenac**

- Indian Veterinary Research Institute (IVRI) has demanded a ban on using aceclofenac in cattle after a new study showed that the drug metabolises into diclofenac in water buffaloes.
- Aceclofenac gets rapidly converted to diclofenac after being injected into the water buffaloes.
- Aceclofenac in water buffaloes poses the same threat to vultures as it is a pro-drug of diclofenac.

#### **What was diclofenac?**

- Diclofenac — an **anti-inflammatory drug** — was **banned for veterinary use** by the Government of India in **2006**. It was found to be the **main cause of a dramatic decline (99 per cent) of the vulture** population across Asia.
- The drug caused **accidental poisoning in raptors** after they fed on carcasses of cattle injected with it.

### Ethical Issues Concerned with Tesla's Autopilot

A **driverless car** is a vehicle which can sense its surrounding environment and can navigate without human input. It combines **multiple sensors and techniques** to perceive their surroundings like radar, laser light, GPS, odometer, computer vision, etc.

#### Ethical issues involved

- **Accountability:** In the case of any crash, it would arise an issue of accountability whether the car owner would be accountable or the manufacturer of that vehicle.
- **Law vs Ethics:** Autonomous cars are made to follow traffic rules strictly. But sometimes traffic rules have to be compromised. For example when a **critical patient** has to be taken to the hospital.
- **Displaying human values:** When the vehicle finds an injured person or an old lady, will it stop to help them and display the qualities of compassion and empathy?
- **Impacts on Environment:** This will promote vehicle usage at a time when the objective is to reduce vehicles to reduce greenhouse gas emissions
- **Automation vs Human livelihoods:** Job loss to drivers without compensatory skill development and job creation. It is believed that in the coming future automation will **kill 69% of the job**.
- **Hacking/privacy vs security-** There is a problem if a car is hacked and programmed for killing. Also, problems related to the privacy of people.

## Economics

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### Indian Steel Industry Is World's Second Largest

PM recently emphasized that the Indian steel industry has become the second largest, after China

According to the **Department for Promotion of Industry and Internal Trade (DPIIT)**:

- The **total steel production capacity** of the country at present is **154 million tons (MT)**.

- India produced **10.14 MT of crude steel in April 2022**, making it the **second-largest producer in the world**.
- India has set a **target to double the crude steel production capacity from 154 MT per annum** now to **300 MT per annum** in the next 9-10 years in an order to **boost indigenous capabilities**.

### One nation, one ITR form

The Central Board of Direct Taxes (CBDT) has proposed a **single income tax return (ITR) form for all taxpayers**. There are **seven kinds of ITR forms**, which are used by different categories of taxpayers.

#### What is the change that has been proposed?

According to the proposal, all taxpayers, barring trusts and non-profit organisations (ITR-7), will be able to use a common ITR form, which will include a separate head for disclosure of income from virtual digital assets.

#### Benefits:

- The proposed draft ITR takes a relook at the return filing system in tandem with international best practices.
- The draft form aims to make it easier to file returns and to considerably reduce the time taken for the job by individuals and non-business-type taxpayers.

# Current Affairs Update (Nov 5-11)

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## National

### Reasons for Delhi NCR region facing extreme particulate pollution

#### Geographical reasons:

- **Location of Delhi:** It lies to the northeast of the Thar Desert, to the northwest of the central plains and to the southwest of the Himalayas. As winds arrive from the coasts, bringing with them pollutants picked up along the way, they get 'trapped' right before the Himalayas.
- **Cold temperature during winter:** During summer hotter air rises higher above the surface and takes the pollutants along with it. However, during October-November, the air is not that hot. The pollutants are trapped and tend to get concentrated at lower levels of the atmosphere, resulting in the smoke and haze situation.
- **Lack of wind esp. after the end of the monsoon:** Average wind speed in winter in the Delhi NCR region is one-third of the summer months. This makes the pollutant concentration in the region.
- **Dust Storm:** -According to **SAFAR** (System of Air Quality and Weather Forecasting And Research), 40% of the particulate pollution in Delhi on those specific days could be sourced to a "multi-day dust storm" that originated in the Middle East.

#### Anthropogenic factors:

- **Stubble burning:** The root cause of stubble burning can be traced back to the 1960s-70s when India introduced several measures as part of its Green Revolution to feed its rising population.
- **Governmental policy:** In an attempt to address the growing water crisis, the Punjab and Haryana governments introduced laws, which delayed Kharif cropping and thus worsened the pollution due to stubble burning.
- **Manufacturing activity, Power Generation, Construction, and Transport:** The Central Pollution Control Board (CPCB) and the National Environmental Engineering Research Institute (NEERI) have declared vehicular emission as a major contributor to Delhi's increasing air pollution.
- **Minimum Citizen participation:** Unlike in other parts of the world, there is little citizens' movement for controlling pollution.

- **Poor Regulations:** Regulation is most often seen as imposing bans, not hand-holding and persuading industry – most of them small factories – into adopting environment-friendly measures

## Demand for Statehood

There has been protests in **Leh, Kargil for Statehood as Ladakh** completes 3 years as U.T. There are also demands for **Special status** under the **6<sup>th</sup> Schedule**.

Jammu and Kashmir Reorganisation Act was passed on August 5, 2019, which divided the erstwhile state of Jammu and Kashmir into two parts: the Union Territories of Jammu and Kashmir and Ladakh.

### Legal-Constitutional Provisions related to Statehood:

**6<sup>th</sup> Schedule:** It provides for the administration of tribal areas in 4 northeastern states, namely **Assam, Meghalaya, Tripura, and Mizoram**. The **special status and administrative structure** are created for protecting tribal culture which has led to demands from many State/UTs to be added to it.

## Governor Removal

- TN government has sent a proposal to remove Tamil Nadu Governor R N, Ravi
- **Governor's appointment:** Under Articles 155 and 156 of the Constitution, a Governor is appointed by the **President** and holds office "**during the pleasure of the President**" ( but in effect the pleasure is of a council of ministers headed by the Prime Minister).
- **Article 163** of the Constitution says the Governor will normally be aided and advised by the Council of Ministers except in those functions which require his discretion.
- **Governor's Removal:** If this pleasure is withdrawn before the completion of the five-year term, the Governor has to step down. While the Governor's duties and responsibilities lie in a particular state, there is **no provision for impeaching the Governor**.
- **Supreme Court on Removal:** (In **BP Singhal vs Union of India (2010)**), the Supreme Court upheld that "no limitations or restrictions are placed on the 'at pleasure' doctrine", but the power to remove can't be exercised in an "**arbitrary, capricious or unreasonable manner**"

## Ela Bhatt

- Ela Bhatt, 89, noted Gandhian, leading women's empowerment activist and renowned founder of the **Self-Employed Women's Association (SEWA)** passed away recently
- Born in Ahmedabad in 1933, she studied law and joined the legal cell of the Majur Mahajan Sangh or the **Textile Labour Association (TLA)**.
- **Bhatt founded SEWA in 1972**, which has since worked at empowering women in various ways.
- She was felicitated with the **Padma Shri, the Padma Bhushan, the Ramon Magsaysay Award**, the Indira Gandhi Peace Prize and many other accolades.

## EK Janaki Ammal

125th birth anniversary of **Edavalath Kakkat Janaki Ammal**, a pioneering botanist and the first Indian woman to be awarded a PhD in the botanical sciences.

**Born in Thalassery in the Kannur district of Kerala in 1897**, she worked on making **several intergeneric and interspecific hybrids** involving sugarcane and related grass species. These works were highly significant, as she is believed to have been responsible for creating sugarcane hybrids that yielded sweeter sugar.

Her association with the **Save the Silent Valley movement** – a campaign to stop a **hydroelectric project** from flooding the **Silent Valley forest in the Palakkad district of Kerala** – was well-known.

## Janjatiya Gaurav Divas

To commemorate the contribution of the tribal freedom fighters, the Ministry of Education is celebrating the '**Janjatiya Gaurav Divas**'.

The government had declared **15th November** as '**Janjatiya Gaurav Divas**' dedicated to the memory of brave tribal freedom fighters.

**15th November** is the **birth anniversary of Birsa Munda** who is revered as Bhagwan by tribal communities across the country.

### About Birsa Munda:

- **Birsa Munda** was an iconic **freedom fighter, social reformer, and revered tribal leader** of the country, who fought bravely against the exploitative system of the British colonial government, and became a legendary figure in his lifetime, often referred to as '**Bhagwan**'.
- He organized and led the tribal movement, giving a call for "**Ulgulan**" (**Revolt, 1899-1900**) to the **tribals**. He encouraged tribals to understand their cultural roots and observe unity.

## Polavaram project

- It is an under-construction **multi-purpose irrigation project** on the **Godavari** River in the Eluru District and East Godavari District in **Andhra Pradesh**.
- The project has been accorded **National project status** by the Central Government of India and its backwater spreads into parts of Chhattisgarh and Odisha States.
- It gives a major boost to the tourism sector in Godavari Districts as the reservoir covers the famous **Papikonda National Park**, Polavaram hydroelectric project (HEP) and National Waterway 4.



## Reasons for the prevalence of child marriage in India

- **Lack of education:-** A big determinant of the age of marriage is education. Around 45% of women with no education and **40% with primary education married before the age of 18, according to NFHS-4.**
- **Patriarchal attitudes:** Child marriage is often seen as a defence against premarital sex, and the duty to protect the girl from sexual violence and harassment is transferred from father to husband.
- **Declining sex ratio:** – In rural parts of northern India, particularly in Rajasthan, the declining sex ratio has led to the growth of a practice known as **Atta Sata** where a daughter is exchanged for a daughter-in-law, irrespective of her age
- **Ineffective implementation of the law:** Lack of proper age documentation and overall lack of protection for the human rights of children along with the ineffective implementation of laws like PCMA, 2006 is also a major hurdle in eliminating child marriages.
- **Economics of marriage** – Girls are often seen as **a liability with a limited economic role**. In poor communities, marrying off a daughter means one less mouth.
- **Cultural practices** -The practice of child marriage in northern India is closely associated with pious occasions such as **Akha Teej in Rajasthan** when mass child wedding takes place in many districts however administration fails to stop these weddings due to social pressure.

### Consequences of child marriage:

- It violates **children's rights**
- Results in more **infant and maternal deaths**
- **Stunted growth** (NFHS-5: prevalence of child stunting is 35.5% in 2019-21)

## EWS quota Constitutional

The Supreme Court upheld the **validity of reservation to economically weaker sections (EWS)** of society among the general category by a majority judgment of **3:2**.

### Arguments by Judges:

**Favours:** The state can make special provisions and the exclusion of SEBCs, STs, SCs, and OBCs does not violate the equality code. Reservation should have a deadline to usher in an egalitarian society. Efforts should be made to eliminate the causes of backwardness.

**Against the quota:** Reservation on the basis of economic criterion is per se valid, but excluding others who are backward (SC/ST/OBC/SEBC) is a violation of the basic structure. All the poorest, regardless of caste or class, are discriminatory. Strikes at the essentials of non-discriminatory rule.

**Government's View:** The government maintained that the 10% quota was not an addition to the 50% ceiling on the reservation. It said the EWS quota was an "independent compartment". The government has said it will increase seats by 25% in its institutions to accommodate the EWS quota.

**Background:** The **10% EWS quota** was introduced under the 103rd Constitution (Amendment) Act, 2019 by amending Articles 15 and 16. It inserted Article 15 (6) and Article 16 (6). Economic reservation in jobs and admissions in educational institutes for Economically Weaker Sections (EWS) among **forward communities**.

### Inclusion of Dalit Christians, Dalit Muslims in SC list

Case for the inclusion of Dalit Christians and Dalit Muslims on the list of Scheduled Castes is being heard in the Supreme Court.

**Central Government justification for the exclusion of Dalit Christians and Dalit Muslims from the Scheduled Castes list are:**

- **"Foreign" origins of Islam and Christianity** as opposed to Hinduism, Sikhism and Buddhism
- The **identification of Scheduled Castes** is centred around a specific social stigma [and the connected backwardness with such stigma] that is limited to the communities identified in the Constitution (Scheduled Castes) Order, 1950
- **The practice of "untouchability":** It was a feature of the **Hindu** religion and its branches, not Islam or Christianity.
- **Scheduled Castes converts to Buddhism embraced Buddhism voluntarily** at the call of Dr Ambedkar in 1956 on account of some innate socio-political imperatives. The original castes/community of such converts can clearly be determined. However, this cannot be said in **respect of Christians and Muslims** who might have converted on account of other factors, since the process of conversions has taken place over the centuries

### 22nd Law Commission

After two and a half years, the **22nd Law Commission of India** has been constituted with Justice (retd) **Rituraj Awasthi** as its head. Commission would have a tenure of **three years**.

**Terms of reference of 22<sup>nd</sup> Law Commission:**

- Identify **laws which are no longer needed** or relevant and can be immediately repealed
- **Examine the existing laws** in the light of Directive Principles of State Policy and suggest ways of improvement and reform

- **Suggest such legislation** as might be necessary to implement the Directive Principles
- **Revise the Central Acts of general importance** so as to simplify them and remove anomalies, ambiguities and inequities

The Law Commission of India is a **non-statutory body** that is constituted by a notification of the Government of India, with definite terms of reference to carry out research in the field of law.

- The Commission makes **recommendations to the Government (in the form of Reports)** as per its terms of reference.
- The Law Commission was **first** constituted in **1955** and has so far submitted **277 reports**.

## International

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### China-Pakistan Economic Corridor (CPEC)

- CPEC is a **sea-and-land based corridor** started in 2013, with a **collection of infrastructure projects** (hydroelectric-nuclear projects, railways, highways, economic corridors) that are under construction throughout Pakistan.
- It is intended to link **Kashgar** in China's Xinjiang province to **Gwadar** deep sea port close to Pakistan's border with Iran.
- In 2016, CPEC became partly operational, while some major power projects were commissioned by late 2017.

#### Significance of the project:

- **For Pakistan:**
  - It intends to **build modern transportation networks**, various energy projects and special economic zones in order to **rapidly modernise Pakistan's essential infrastructure** and **strengthen its economy**.
  - It aims to **widen and deepen economic ties** between Pakistan and its "**all-weather friend**" China.
- **For China:**

- **Energy security:** It is aimed to secure passage for China's energy imports from the Middle Eastern countries (Gwadar lies close to Strait of Hormuz) by avoiding existing routes from the Straits of Malacca.
- **Strengthening trade ties with Europe:** Developing Gwadar port in the Arabian Sea, as well as connecting this port to Xinjiang Province would be a shortcut to improve trade between Europe and China.
- **National security and economic development:** It is also seen as addressing a national security issue for China by economic development of the Xinjiang region thus reducing militant influence on Muslim separatists.
- **Geopolitical aspirations:** The CPEC is part of China's larger regional transnational **Belt and Road Initiative (BRI)**, formerly known as One Belt One Road (OBOR) initiative. BRI's two arms are the land-based New Silk Road and the 21st century Maritime Silk Road. Beijing aspires to establish a **Silk Road Economic Belt** that will span a vast swath of Asia and eastern Europe and be covered by a network of transportation, energy supply and telecommunications lines.

### World's Longest Passenger Train

- The world's longest passenger train was operationalized in Switzerland during the 175<sup>th</sup> anniversary of Swiss Railways.
- The passenger train is 1.9 km-long, having 100 coaches. It travelled 15.5 miles from the Albula Tunnel in Preda to the Landwasser Viaduct, at the outskirts of Filisur. The journey ended at Bergün.
- It travelled via the famous Albula-Bernina route – a UNESCO World Heritage Site. During the journey, the train travelled via 22 tunnels and 48 bridges.
- The previous record of the longest passenger train journey was set by National Belgian Railway Company in 1991.

### World Heritage Glaciers (WHG) Sentinels of Climate Change

Recently, UNESCO and IUCN released this report, which outlines **50 world heritage sites** and provides suggestions for their protection.

World Heritage glaciers cover **almost 10% of the Earth's glacierized area** and play a crucial role in sustaining life on Earth. However, they are retreating at an accelerated rate because of climate change.

**E.g. of world heritage glaciers:** Dolomites of Italy and on Tanzania's Mount Kilimanjaro, as well as the world's highest glaciers (near Mt. Everest) and the longest glacier (located in Alaska)

# Science-Tech & Environment

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## Outcomes of the Glasgow Climate Change Conference & current updates on it

- **National emission plans:** Nearly **200 countries** agreed at the COP26 summit to improve their emissions-cutting pledges, called Nationally Determined Contributions or NDCs, in time for COP27. But **only two dozen countries** have so far done so.
- **Deforestation:** More than 100 countries pledged last year to end deforestation by 2030. To achieve that goal, however, the area deforested would need to **shrink by 10% each year** from the 2020 cover. Instead, deforestation fell last year **by just 6.3%**, according to the **Forest Declaration Platform** which tracks progress on the goal. **Amazon deforestation** last year hit its **highest level since 2006**.
- **Methane pledge:** To date, **119 countries**, and blocs including the United States and the EU pledged to slash methane emissions by **30% from 2020 levels** by 2030. But **only 15** of them have come up with **concrete plans** to do so, according to a report by the **World Resources Institute**.
- **Quitting fossil fuels:** Around **20 countries** including Germany, and the United States pledged to stop public financing for fossil fuel projects abroad by the end of 2022, except in **“limited” circumstances** that comply with climate goals. Majority of them are yet to publish such policies, and questions remain about how strict those plans will be.
- **\$100 billion by 2023:** Rich countries’ **failure to deliver promised finance** to poorer nations has **eroded trust** at recent climate talks and made collective progress harder. Rich countries **fell \$16.7 billion short** of the target in 2020 and have signalled that it won’t be met until 2023.
- **Greening business:** Launched ahead of last year’s U.N. talks, the **Glasgow Financial Alliance for Net Zero (GFANZ)** acts as the umbrella group for financial services firms looking to reach net-zero emissions across their portfolios. Since joining, **118 asset managers, 44 asset owners**, and **53 banks** have set **shorter-term targets** to cut emissions.
- **Data reporting standards:** Announced during COP26, the **International Sustainability Standards Board (ISSB)** was set up to establish baseline standards for the reporting of environmental data from companies globally. Despite its establishment, the **European Union and U.S. regulators** have moved to launch their **own rules** leading to ambiguity in the market.

## Loss and damage

- It is used in UN climate negotiations to express the **effects of climate change that outweigh people’s ability to adapt**.

- It is disproportionately affecting vulnerable communities, making addressing the issue a matter of **climate justice**.
- While the UNFCCC has not defined loss and damage precisely, it is caused by extreme weather events (cyclones, droughts, heatwaves) and slow-onset changes (sea level rise, desertification, ocean acidification).
- Climate change damages can be classified as **economic** losses or **non-economic** losses (such as loss of life).

**Evolution of the concept:**

- The appropriate response to loss and damage has been debated **since the early 1990s** when the UNFCCC was founded.
- Following extensive pressure from developing countries, the **Warsaw International Mechanism** (WIM) on Loss and Damages was founded in **2013** with no funding mechanism.
- However, during the **2021 COP26** climate summit in Glasgow, a 3-year task force was established to consider a funding arrangement for loss and damage.

**Mangrove Alliance for Climate (MAC)**

- Spearheaded by the **United Arab Emirates (UAE)** in partnership with **Indonesia**, MAC was launched at the COP27 Summit in Egypt to scale up and accelerate the **conservation and restoration of the mangrove forests**.
- **India** along with **Australia, Japan, Spain and Sri Lanka** have joined it as partners.
- **Mangrove forests**, also called mangrove swamps, mangrove thickets or mangals, are productive wetlands that occur in coastal intertidal zones. Mangrove forests grow mainly at **tropical and subtropical latitudes** because mangrove trees cannot **withstand freezing temperatures**.

**India's first data centre**

North India's **first hyper-scale data centre Yotta Yotta D1** was established recently.

**About Yotta D1:** 'Yotta D1' features **Internet peering exchanges** and **direct fibre connectivity** to and from global cloud operators, making it extremely useful for global connectivity. It will help in accessing **services** like public cloud service, cyber security, and disaster recovery.

**A data center** is a facility that centralizes an organization's shared IT operations and equipment for the purposes of storing, processing, and disseminating data and applications.

**Need for and significance of the data centre:**

1. To increase **storage capacity of 250 MW** against current 400 MW.

2. It comes in the backdrop of **Global Investors Summit 2023** to create avenues for **investment**

### International Day for Biosphere Reserves

November 3 will be the first '**The International Day for Biosphere Reserves**', to be celebrated beginning 2022.

#### Biosphere reserves:

- Biosphere Reserve (BR) is an international **designation by UNESCO** for representative parts of **natural and cultural landscapes** extending over large area of terrestrial or coastal/marine ecosystems or a combination thereof.
- **The World Network of Biosphere Reserves (WNBR)** was formed in 1971, as a backbone for biodiversity conservation, ecosystem restoration, and living in harmony with nature. **Nilgiris** stretching over **Tamil Nadu, Karnataka and Kerala** was the **first** biosphere reserve of India designated by **UNESCO in 2000**.
- Spain has the maximum **53 biosphere reserves**.

### Rhino horns are shrinking

According to a study, published in the latest edition of **People and Nature** by the **British Ecological Society**, the horns of rhinoceroses may have become smaller over time from the impact of hunting.

#### One-horned Rhinos

- Also known as **Indian rhino**, it is the **largest** of the rhino species.
- It is **identified by** a single black horn and a grey-brown hide with skin folds.

#### Protection status

- **IUCN Red list:** Vulnerable
- **Wildlife Protection Act, 1972:** Schedule I.

### What is heronry?

- It is the **breeding grounds** of herons.
- Herons are long-legged, long-necked, freshwater and **coastal birds** some of which are referred to as **egrets or bitterns** rather than herons.
- Herons, by evolutionary adaptation, have **long beaks**.
- **IUCN:** Least Concern

### RTS,S/AS01 (Mosquirix) vaccine

Decoding the name of the vaccine:

- It is named **RTS** because it was engineered using genes (repeat ('R') and T-cell) of the protein of the Plasmodium falciparum malaria parasite together with a viral surface antigen ('S') of the hepatitis B virus (HBsAg).
- This protein was then mixed with additional HBsAg to improve purification, hence the **extra "S"**.
- **To boost immune responses**, all protein-based recombinant vaccines rely heavily on a strong **adjuvant** (help vaccines work better). RTS, S is formulated with an adjuvant called **AS01** developed at GSK.

**Why in news?** The World Health Organization's (WHO) recently approved **RTS, S/AS01 (Mosquirix)** developed by GlaxoSmithKline for immunising children against malaria was a big milestone after decades of gradual progress

### Black Honeybee

- A new species of **endemic honeybee** named Apis karinjodian or Indian black honeybee has been discovered in the Western Ghats, taking the species of honeybees in the world to 11.
- Classified as **near threatened** (NT) in the IUCN Red List, the distribution of Apis karinjodian ranges from the States of Goa, Karnataka, Kerala and parts of Tamil Nadu.
- The research has given the country's apiculture a new direction as it is **home to three species of cavity-nesting honey bees**: Apis indica, Apis cerana and Apis karinjodian.

### The Falcon Heavy rocket

- It is a rocket system of SpaceX that debuted in **2018**, with other two Falcon Heavy missions launched in 2019.
- SpaceX claims Falcon Heavy to be the **most powerful** rocket in the world, with a lifting capacity of around 64 metric tonnes into orbit

### Bailey K. Ashford Medal

For his outstanding research and contributions to tropical medicine, prominent Indian physician and scientist **Dr Subhash Babu** have received the **prestigious Bailey K. Ashford Medal for 2022**. In its 82-year history, the **award has never been given to an Indian scientist** or an Indian institution for work.

The **American Society of Tropical Medicine and Hygiene (ASTMH)**, the largest scientific organization in tropical medicine in the world, **present the medal annually to one or more mid-career researchers for distinguished work in tropical medicine**.

He is the **Scientific Director of the ICER (International Centre for Excellence in Research)-India Programme**. He is a pioneer in research on **helminth infections and tuberculosis**.



# Economics

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## Fertilizer Subsidy

Considering the huge increase in the prices of fertilizers in the global market, the Centre has 'doubled' the **Phosphatic and Potassic (P&K) fertilizer** subsidy for this Rabi season.

### Fertilizer pricing in India:

Under the **Nutrient Based Subsidy (NBS) Scheme (2010)**, the prices are fixed by companies (decontrolled ) but a **fixed amount of subsidy** decided on an annual basis is provided on each grade of **subsidized Phosphatic and Potassic (P&K) fertilizers**, except for Urea, based on the nutrient content present in them, so as to keep the prices within reasonable level. Under the **Department of Fertilizers under the Ministry of Chemicals & Fertilizers**.

## Pig Iron

- Data from the Steel Ministry, show that **84 per cent of Pig Iron** came from Russia. This is significant amid calls by countries to limit trade with Russia.
- **Pig iron, also known as crude iron**, is an intermediate product of the iron industry in the production of steel which is obtained by smelting iron ore in a blast furnace. It has a very **high carbon content** and is brittle and therefore needs further refining.
- Low-grade ores comprised **92% of India's total iron** ore exports (mostly to China). India ranks **seventh in the** iron ore resources, in the world

## Twin Transition

- World Economic Forum has highlighted this word as a key to sustainable growth.
- **A twin transition** basically means including digital/technological improvements with the Environmental sustainability goals. E.g. using carbon capture technology, and adopting a circular development model.
- **Digitization** has a key role to play in supporting sustainable growth during this decisive decade for action on climate change. Indeed, digital solutions **could reduce global emissions by 20%**, according to the World Economic Forum.
- By adopting a 'twin transition' approach, leaders can bring the **digital and sustainability agendas** together to future-proof their organizations.

## G20 Logo: Significance of Lotus

- India is set to assume the presidency of G20. In this context, it unveiled the logo, theme and website of India's G20.

- **Lotus:** India's national flower, Lotus having 7 petals, represent seven continents of the globe and also seven notes of music.
- **G20:** It is the vibrant colours of India's National Flag- Saffron, white and green.
- **Blue Earth:** Represent India's pro-planet approach to life, one in perfect harmony with nature.

### Basmati Rice

Government will disallow the blending of **more than 15% non-basmati rice** with basmati rice for the product that is sold as **blended 'Basmati' Rice**.

**Reasons behind the move:** Government intends to ensure that the purity of Indian Basmati Rice doesn't dilute due to excessive blending. Rice blended with more than 15% non-basmati rice will be called 'blended Rice' instead of 'blended Basmati Rice'.

Basmati rice has its **origin in the Indian subcontinent** and has a unique fragrance (due to **2-acetyl-1-pyrroline**). India is the largest producer (over 70% of global production). GI tag has been provided to Basmati grown in some of the states such as Punjab, Haryana, Delhi, Uttarakhand etc.

### India Infrastructure Project Development Fund Scheme (IIPDF)

- The India Infrastructure Project Development Fund Scheme (IIPDF) was launched by the **Department of Economic Affairs (DEA)**.
- This central sector scheme extends financial aid required for the development expenses of **Public Private Partnership (PPP)** projects.
- It provides funding for project sponsoring authorities (both in the central and state governments) to access services provided by Transaction Advisors (TAs) and consultants involved in the development of the PPP projects.
- This will help effectively implement bankable viable PPP projects that seek to modernize infrastructure in India.
- The total corpus of the India Infrastructure Project Development Fund is **150 crore** for three years.
- The new scheme is an addition to the currently operational Scheme for Financial Support to PPPs in Infrastructure (**VGF Scheme**), which was notified in December 2020.

# Current Affairs Update (Nov 12-23)

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## National

### The Collegium system

- The collegium system is the way by which judges of the SC and HCs are **appointed and transferred**.
- It 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.
- Judges of the higher judiciary are **appointed only through the collegium system** and the government has a role only after names have been decided by the collegium.
- The role of the government in this entire process is **limited to getting an inquiry conducted** by the Intelligence Bureau (IB) if a lawyer is to be elevated as a judge in a HC or the SC.
- The collegium system is **not rooted in the Constitution** or a specific law promulgated by Parliament, rather it has **evolved through judgments of the SC**.

### Use of Social Media by public Servants debate

#### Arguments for using Social Media by public Servants

- **Public interaction:** Continuous connectivity between officers and citizens, which helps in **quick problem-solving and hassle-free administration**.
- **Accountability:** Through Social Media, officers portray their life – thus there are chances of **being scrutinized at every point**.
- **To gather information and public help.**

#### Arguments: Against using Social Media by public servants

- **Against Anonymity**
- **Gain public support for personal purpose/fame**
- **Against Secrecy**

### Dynamic Ground Water Resource Assessment 2022 Report

#### Key findings:

- India is the **largest user of Groundwater (GW)** ( accounting for 1/4<sup>th</sup> of total withdrawal)
- **87% of GW is used for Irrigation**

- **Status:** GW extraction has declined and the number of **over-exploited units** (extraction > recharge) has **decreased**.
- Currently, 67% of GW units are **safe** (extraction < 70% of recharge), 14% **Overexploited** and 4% at the **Critical**
- Extraction is very high in **Haryana, Punjab, Rajasthan etc.**

### Chatrapati Shivaji Maharaj

- The Maharashtra government said that it is working to return “**Jagdamba**” – Chhatrapati Shivaji Maharaj’s sword, from London to India by 2024, the 350th anniversary of the Maratha ruler’s coronation as Emperor of his empire.
- Shivaji IV presented the sword (not a genuine gift as the British extracted it through coercion) to King Edward VII, then Prince of Wales, during his tour of India in 1875-76.
- **Lokmanya Bal Gangadhar Tilak** made the first effort to bring back the sword when he went to London.

### Foundational Literacy and Numeracy (FLN)

- FLN is the ability of children by the time they enter Class III to read with meaning and perform basic math calculations, which serves as the foundation for all future learning.
- The fact that India **ranks 132 out of 191 countries** in the 2021 **Human Development Index**, which measures a country’s health, average income and education, is concerning.
- According to an **NCERT** survey, **11% of Indian children in Class III do** not have fundamental maths skills when compared to the worldwide benchmark competency level.

#### Government’s recent initiatives:

- **The National Education Policy 2020:** It proposes a **3-language formula**, **2 of which** are indigenous to India and states that the **medium of instruction should be in the mother tongue** until at least Class V.
- **The NIPUN Bharat:** The Union Ministry of Education launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) in 2021 to enable all children at the end of Class III to achieve foundational skills by the year 2026-2027.

### Ninth Schedule of the Indian Constitution

- Jharkhand government has passed a bill increasing the reservation in vacant government posts and services to **77%, thus violating the 50%** mandate of the Supreme Court (**Indra Sawhney Case**).
- The government has further called for putting the bill in the 9<sup>th</sup> Schedule to avoid Judicial Review. A Tamil Nadu law that provides **69 per cent** reservation in the state is part of the Schedule.

- The Ninth Schedule (inserted by the **1<sup>st</sup> Constitutional Amendment**) contains a list of central and state laws which cannot be challenged in courts. Currently, 284 such laws are shielded from judicial review.
- **1<sup>st</sup> CAA also created Article 31A** (extends protection to ‘classes’ of laws) **and Article 31B** (it shields specific laws or enactments)
- **Article 31B can be applied retrospectively**: If laws are inserted in the Ninth Schedule after they are declared unconstitutional, they are considered to have been in the Schedule since their commencement, and thus valid.
- **Although Article 31B excludes judicial review**, laws under the Ninth Schedule are open to scrutiny if they are violative of the **basic structure of the Constitution (I R Coelho case (2007))**

### PESA Rules

To bring the people residing in Fifth Schedule Areas into the mainstream, the Parliament, in terms of **Article 243M(4)(b) of the Constitution**, has enacted “the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996” (PESA) to extend **Part IX of the Constitution**, relating to Panchayats, to the **Fifth Schedule areas**, with certain modifications and exceptions. States, having Fifth Schedule Areas, have been empowered to make Panchayat Laws for these areas.

With the objective of effective implementation of PESA, Ministry of Panchayati Raj **circulated Draft Model PESA Rules in 2009**

**Why in news?** Madhya Pradesh has notified its PESA Rules on the occasion of Janjatiya Gaurav Divas on 15<sup>th</sup> November 2022

#### Significance of the move:

- It will **empower the Gram Sabhas** to decide on the rules and regulations about all natural resources in the forest areas.
- It will give **more constitutional rights to the tribal people** to reap the benefits of natural resources from the forest areas where they live.
- **Empowering the lives of tribal communities** and giving the tribals their rights

### Kameng hydropower project

- The 600 MW Kameng hydropower project was developed by the state-owned North Eastern Electric Power Corporation (NEEPCO).
- It is situated in Arunachal Pradesh’s West Kameng district.
- This run-of-the-river scheme makes use of the flows from **Bichom and Tenga** rivers – the tributaries of **River Kameng**.
- It has 2 dams (Bichom and Tenga) and a powerhouse having four units of 150 MW each to generate 3,353 million units of electricity each year.

- The project will contribute towards making Arunachal Pradesh a **power-surplus state**.
- Arunachal Pradesh accounts for 40% of India's hydropower potential. Therefore, this state is considered the "**powerhouse of India**".

### India's First Suicide Prevention Policy

The Ministry of Health and Family Welfare recently unveiled the National Suicide Prevention Strategy – India's first suicide prevention policy. National Suicide Prevention Strategy (NSPS) aims to reduce suicide mortality by 10 per cent by 2030 through timely actions and multi-sectoral collaborations.

Its priority areas are reducing easy access to suicide modes, strengthening healthcare systems to prevent suicide, sensitization through media and strengthening suicide surveillance.

**The national strategy has several objectives. These are:**

1. Set up effective surveillance mechanisms for suicides within the next 3 years
2. Establish psychiatric outpatient departments that provide suicide prevention services through the District Mental Health Programme in all states within 5 years
3. Integrate a mental well-being curriculum in all educational institutions within the next 8 years

## International

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### Why is India regarded as the best mediator between Russia and Ukraine?

- **Neutral player:** As India has walked the diplomatic tightrope, it has won credibility on both sides as a mediator between them.
- **Successful diplomatic involvement earlier:** Preventing the attack on the nuclear power station at Zaporizhzhia in eastern Ukraine. During the Black Sea grain shipment, discussions to intervene with Russia.
- **Leader of Global South:** Mexico had suggested that the PM of India, Pope Francis and the UN Secretary-General should mediate the Russia-Ukraine crisis.
- **Good relations with Moscow and the West:** India can use this unique leverage to put pressure on Russia to end its war in Ukraine.
- **Geopolitical aspirations:** Peace-making might help India gain a permanent seat on the UN Security Council.

### France ends Operation Barkhane

France ended the decade-long Operation Barkhane in Africa. This comes amid the deteriorating ties between France and countries in the Sahel – Mali, Burkina Faso and Guinea – following a series of military coups.

France launched Operation Serval in January 2013 in the Sahel in North Africa. The operation was limited to countering Islamic extremists linked to al-Qaeda, who have taken up control of northern Mali.

In 2014, this Operation Serval was scaled up and renamed as Operation Barkhane. The upgraded operation's objective is to assist local armed forces in preventing resurgence of non-state armed groups across the Sahel region

**Operation Barkhane saw a series of failures such as:**

1. Emergence of new groups linked to terrorist organizations like the Islamic State
2. Humanitarian crisis emerged because of the operation's failure to combat terrorism. Violence resulted in 5,450 deaths across Mali, Burkina Faso, and Niger in just the first half of 2022. This is a significant increase when compared with the previous years.
3. Over 2,000 incidents of Islamist violence were recorded in the Sahel in 2021. The previous year recorded over 1,180 incidents.
4. Due to the failure to resolve the region's insurgency, civilian support has increased to the military. This has contributed to the political uncertainty in the Sahel.

### Rule of Law Index 2022

- World Justice Project released this report, saying the global Rule of Law has declined for the fifth year in a row.
- **India** has been ranked **77** (out of 140 countries)
- Topped by **Denmark**
- **The rule of law** is the political philosophy that all citizens and institutions within a country, state, or community are accountable to the same laws, including lawmakers and leaders.

### Permacrisis

The Collins Dictionary's **word of the year for 2022** is "**permacrisis**". The word, most widely understood as a combination of "**permanent**" and "**crisis**", has been in use for a little longer from the COVID crisis to the Russia-Ukraine war.

### Green Maritime Sector

India- Norway join hands for a GREEN MARITIME SECTOR

**Initiatives for the low-carbon maritime sector:**

- Ministry of Ports Shipping and Waterways has prepared **Maritime India Vision 2030** identified more than 150 initiatives across various maritime sectors
- India Norway is part of the **Green Voyage 2050 project**

- India is a signatory to **Hongkong Convention for Recycling of Ships**

### Significance of G20 presidency for India

- An opportunity to assume **leadership of the Global South**.
- Building a global consensus on reforming multilateral organisations such as the UN was the first step toward a **new world order** for the post-Covid era.
- The growing relevance of the G20 in a world facing **challenges like climate change**, the Covid-19 pandemic and the war in Ukraine.

### No Money for Terror Conference (NMFT)

India is hosting the **3rd edition of the NMFT conference**. The conference was first held in **Paris in 2018**, followed by **Melbourne in 2019**. Hosted by the **Ministry of Home Affairs** with over 75 countries participating

#### Major agenda for the conference:

- Regulate the use of **crowdfunding platforms** to finance terrorist activities
- Enhance the **control mechanisms of social media** platforms
- **Monitor global trends** in terrorism and terrorist financing
- **Regulate the use of formal and informal** channels for terrorism
- **Control the use of emerging technologies** and terrorist financing e.g. cryptocurrency and Dark Web

### East Timor to become 11th member of ASEAN

- The ASEAN members agreed in principle to admit East Timor as the 11<sup>th</sup> member of the bloc.
- The Association of Southeast Asian Nations (ASEAN) is a regional bloc founded on August 8, 1967 in Bangkok, Thailand. Its member states are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. East Timor was added as a new member of this regional grouping.

## Awards

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### UNESCO-Madanjeet Singh Prize

- Franca Ma-ih Sulem Yong won the 2022 edition of the UNESCO-Madanjeet Singh Prize. The UNESCO-Madanjeet Singh Prize for the Promotion of Tolerance and Non-Violence is conferred every two years by UNESCO. The award was created based on the ideals of UNESCO's Constitution.
- Franca Ma-ih Sulem Yong, with 7-year experience as a journalist, strived to change the perception related to mental illness.



- With training in art therapy and psychology, she founded two non-governmental organizations (NGOs) – Afrogiveness Movement and Positive Youths Africa (PYA).

### Gandhi Mandela Award

The Tibetan spiritual leader – **Dalai Lama** (14th), was recently conferred the Gandhi Mandela Award 2022.

#### About the Gandhi Mandela Award:

- The **Gandhi Mandela Foundation** – a government of India registered Trust, NGO, has constituted an **international** prize – the Gandhi Mandela Award, on the 150th birth anniversary (2019) of the Father of the Nation, MK Gandhi.
- The award is given to personalities who have **carried forward the legacies of Gandhi and Mandela** by making significant contributions in the fields of Peace, Social Welfare, Culture, Environment, Education, Healthcare, Sports and Innovation.

### Indira Gandhi Prize for Peace, Disarmament and Development

- 2021 award has been given to NGO Pratham, working in the field of education
- The award carries a monetary award of **Rs 25 lakh along** with a citation and is awarded annually by the Indira Gandhi Memorial Trust to individuals and organizations
- **The annual Status of Education Report (ASER)** is biennially published by the NGO Pratham, since 2005.

## Science-Tech & Environment

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### Mission Prarambh

- In a historic moment, Vikram-S, India's first privately developed rocket, lifted off from the Indian Space Research Organization's (ISRO) launchpad with three customer payloads (by Space Kidz India, Bazoomq Armenia (foreign customer), and N-Space Tech India) in Sriharikota.
- The mission, codenamed **Prarambh** (the beginning), is the **Indian private sector's first entry** into the lucrative space launch market and its maker is **Hyderabad-based Skyroot Aerospace**.
- **Vikram-S rocket** is a **single-stage solid-fuel suborbital launch vehicle** named after Vikram Sarabhai, the pioneer of India's space program. The spacecraft travels **slower than the orbital velocity in a sub-orbital flight**, which means it is fast enough to reach outer space but not fast enough to maintain an orbit around the Earth.
- The goal was to cross 80 km altitude, considered to be the threshold for entry into space, as per one measure. (The **Kármán line**, a more widely accepted boundary, is 100 km from the Earth's surface.)

- The launch vehicle's engine, **Kalam-80**, is named after former President A P J Abdul Kalam.
- The Vikram-S is a **Small Satellite Launch Vehicle (SSLV)** that will carry payloads weighing between 290 and 560 kg (PSLV, India's workhorse, can carry up to 1,750 kg) into sun-synchronous polar orbits.

### E-waste (management) rules 2022

The government has notified **E-waste (management) rules 2022**, which will come into force from **1 April next year** and apply to every manufacturer, producer refurbisher, dismantler and recycler of e-waste

#### Key provisions of the Rules:

- **Restricted the use of hazardous substances** (such as lead, mercury, and cadmium) in manufacturing electrical and electronic equipment that have an adverse impact on human health and the environment.
- **Increased the range of electronic goods** covered e.g., laptops, mobile, cameras etc.
- **Targets fixed:** Producers of electronic goods have to ensure **at least 60% of their electronic waste** is collected and **recycled by 2023** with targets to increase them to **70% and 80%** in 2024 and 2025, respectively. Companies will report these on an online portal.
- **Extended Producer Responsibility Certificates** (similar to carbon credit mechanism): This will allow the offsetting of e-waste responsibility to a third party.
- **'Environmental compensation'** to be provided by the companies that don't meet their target.
- **Role of State Governments:** They will earmark industrial space for e-waste dismantling and recycling facilities, undertaking industrial skill development and establishing measures for protecting the health and safety of workers engaged in the dismantling and recycling facilities for e-waste.
- **Role of manufacturers:** Make the end product recyclable. A component made by different manufacturers be compatible with each other
- **Role of Central Pollution Control Board:** It shall conduct random sampling of electrical and electronic equipment placed on the market to monitor and verify the compliance of reduction of hazardous substances provisions.

### The sovereign green bond

- The government issues sovereign green bonds to **fund projects related to climate adaptation and mitigation** and investors interested in such projects can purchase sovereign bonds.
- Holders of sovereign green bonds may also **enjoy tax benefits**.

- Aside from sovereign green bonds, **green bonds were first introduced in 2007.**
- Green bonds **attract a lower cost of capital** than ordinary bonds because of their indication of environmental sustainability, and they necessitate credibility and commitment linked with the bond-raising process.

**About the sovereign green bond framework:**

- The Ministry of Finance has constituted a **Green Finance Working Committee (GFWC)** including members from relevant line ministries and chaired by the Chief Economic Advisor, **to support the Ministry with selection and evaluation of projects.**
- To support these projects, the government will issue bonds, whose proceeds will be deposited to the **Consolidated Fund of India (CFI)**, from where it will be made available for eligible green projects.

**‘Long Term Low Emission Development Strategy’ (LT-LEDS)**

- India announced its ‘Long Term Low Emission Development Strategy’ (**LT-LEDS**), a roadmap to achieve net-zero emissions by 2070 on November 14 at COP27.
- The plan focuses on “strategic transition” of high-emission sectors, including electricity, transport, industries, and urbanisation, and a short discussion of India’s adaptation needs in the light of its vulnerability to climate impacts.
- India is the **58th country** to submit its plans to the UNFCCC to reduce carbon emissions to well below 2 degrees Celsius, and preferably 1.5 degrees, above pre-industrial levels, in order to limit global warming as required under the Paris Agreement.
- The LT-LEDS aims to go beyond India’s climate targets or the nationally determined contributions (NDC) announced in August — of achieving 50 percent of India’s cumulative electric power installed capacity from non-fossil sources by 2030, and reducing emission intensity of GDP by 45 percent below 2005 levels by 2030 — and builds on **India’s Panchamrit** (five nectar elements) **pledges** at the 26th Conference of Parties (COP26) of the UNFCCC in Glasgow, including the target of **net-zero emissions by 2070.**
- It focuses on decarbonising the electricity system by phasing down coal, and expanding and stabilising the renewable electricity grid, increasing the adoption of electric vehicles, and expanding production and manufacturing power of green hydrogen under the **Green Hydrogen Mission.**
- The strategy also incorporates the Prime Minister’s **lifestyle for environment (LIFE) mission** that promotes a ‘sustainable lifestyle’. The LT-LEDS includes India’s long-time ambition to scale up its **nuclear capacity by three folds by 2032.** The other inclusion is India’s intention to invest in research and development of carbon removal and capture technologies, aka **carbon capture and storage (CCS).**

## LeadIT Summit

Leadership for Industry Transition (LeadIT) Summit 2022 hosted by India and Sweden at COP27, with a focus on low carbon transition of the hard-to-abate industrial sector.

It gathers **countries and companies** that are committed to action to achieve the Paris Agreement. It was launched by the **governments of Sweden and India** at the UN Climate Action Summit in September 2019 and is supported by the **World Economic Forum**. LeadIT members subscribe to the notion that **energy-intensive industries** can and must progress on **low-carbon pathways**, aiming to achieve **net-zero carbon emissions**

## Methane Alert and Response System (MARS)

- The Methane Alert and Response System (MARS) was launched at the COP27 to the United Nations Framework Convention on Climate Change in Sharm El-Sheikh, Egypt.
- Methane (CH<sub>4</sub>) accounts for a small portion of **human-induced greenhouse gas (GHG)** emissions compared to carbon dioxide (CO<sub>2</sub>), but it is **80 times more potent** GHG than CO<sub>2</sub>.
- According to the Intergovernmental Panel on Climate Change (IPCC), the world must cut methane emissions by **at least 30 %** by 2030 – the goal of the **Global Methane Pledge** – to keep the 1.5°C temperature limit within reach.

### About MARS:

- MARS is a part of global efforts **to slow climate change by tackling global warming gas**.
- The **data-to-action platform** was set up as part of the **UNEP International Methane Emissions Observatory (IMEO)** strategy to get policy-relevant data into the right hands for emissions mitigation.
- The system will be the **first** publicly available global system to connect methane detection to notification processes transparently.
- It will use **state-of-the-art satellite data** to identify significant emission events, notify relevant stakeholders, and support and track mitigation progress.

## Global Shield against Climate Risks Initiative

- The Global Shield against Climate Risks initiative was launched by the Vulnerable Twenty (V20) countries and G7 countries. While V20 countries represent 58 countries that are vulnerable to climate change, the G7 represent seven of the world's most industrialized countries.
- It is a social protection and insurance-based finance mechanism for loss and damage outside the UNFCCC process.
- It will provide pre-arranged financial aid that can be rapidly deployed to respond to disasters like the devastating flood that occurred in Pakistan in August 2022.

- It will help expand the financial protection instruments for governments, communities, businesses and households.
- These instruments will minimise the impacts of disasters by helping vulnerable economies become more resilient, ensure sustainable development and protect lives and jobs.

### Water Adaptation and Resilience Action Plan

27<sup>th</sup> COP has launched Water Adaptation and Resilience Action Plan, formerly known as Action on **Water Adaptation or Resilience (AWARe)**, with an **Africa-first focus**, giving hope to drought-ravaged populations, especially in the **Horn of Africa**

It is the result of **collaboration** between the African Union (AU), Water and Climate Coalition Leaders, the World Meteorological Organization (WMO) and the African Ministers' Council on Water (AMCOW), among others.

AWARe will address water security as part of climate change adaptation and will focus on following priorities:

- **Decrease water losses** worldwide and improve water supply;
- **Implementing policies for cooperative water-related adaptation** action and cooperation
- **Interlinkages** between **water and climate action**
- Ensure there is **50 per cent less damage from floods and droughts** by 2030

### Emissions in India

- According to the Emissions Gap Report 2022, **India is among the top 7 emitters** (others being China, the EU-27, Indonesia, Brazil, the Russian Federation and the U.S.).
- However, in per capita terms, India's emissions are far lesser (2.4 tCO<sub>2</sub>e) than others. **For example**, World average per capita GHG emissions were 6.3 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) in 2020. The U.S. is way above this at 14, 13 in the Russian Federation and 9.7 in China.
- **For economic development**, some GHG emissions are unavoidable. India was responsible for the wording of the agreement on coal in 2021, changing "phase-out" to "phase-down," which reflects the country's huge dependence on thermal power.
- In addition to pledging to **net-zero emissions by 2070**, India has committed to generating 500 GW of renewable energy capacity by 2030, lowering GDP emission intensity while increasing forest cover.

### Outcomes of the COP27 on these agendas

- **The Sharm el-Sheikh Implementation Plan:** It emphasised that a global transition to a low-carbon economy will require at least \$4-6 trillion in annual spending.

- **Mitigation work programme:** This would begin this year and last until 2030. Governments were requested –
  - To revisit and strengthen the 2030 targets in their national climate plans by the end of 2023.
  - To accelerate efforts to **phase down** unabated coal power and **phase out** inefficient fossil fuel subsidies.
  - **To reduce greenhouse gases** (GHGs) in applicable sectors through increased renewable and low-emission energy.
- **Loss and damage (L&D):** COP27 adopted the basic demand of a fund to acknowledge assistance needed for particularly vulnerable developing countries. However, there is **no agreement yet** on how finance should be provided and where it should come from.
- **Fossil fuels:** India wanted to include a commitment to phase down all fossil fuels (and not just coal). But the resolution failed.

**Challenges ahead:**

- **No contributions have been pledged to the L&D fund.**
- **Extra burden on the developing countries.** They have been asked to revise their climate action plans (NDCs), with progressively stronger actions every year.
- **Developed countries have failed to meet their commitment.** For example, mobilising a relatively small sum of USD 100 billion per year.

**Climate Change Performance Index 2023**

Climate Change Performance Index 2023 was released jointly by Germanwatch, NewClimate Institute and Climate Action Network.

It uses a standard framework to compare the environmental performance of 59 countries and the European Union, which together account for 92 per cent of global greenhouse gas emissions. The index assesses climate protection performance of these countries using 14 indicators in four categories:

1. GHG Emissions
2. Renewable Energy
3. Energy Use
4. Climate Policy

- In the overall standings, none of the countries made it to the first three ranks.
- **Denmark**, with the score of 79.61, was ranked at fourth position. It is followed by Sweden (73.28 points).
- Chile has risen three ranks in the CCPI 2023 to the 6<sup>th</sup> position.
- **Russia** is among the worst performers, since it mainly depends on fossil fuel as source of energy and receives just around 3 per cent of its energy from renewable sources.
- **India**, with the score of 67.35 points, was ranked at 8<sup>th</sup> position

### LOFTID mission

NASA completed the technology demonstration of its **Low-Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID) mission**.

The cone-shaped structure will have an **inflatable structure** that is capable of holding its shape against **drag forces**. It will also have a **protective flexible thermal protection system** that will protect it from the heat generated during re-entry.

#### Uses:

- **Bring massive objects** back from Earth's orbit, like items from the International Space Station.
- Used for **bringing back rocket assets** after they are launched
- Help **land humans on Mars**

### Narco test

In a '**narco**' or **narcoanalysis test**, a drug called **sodium pentothal** ( a sedative) is injected into the body of the accused, which **induces subconsciousness** so that the subject is **mentally incapable** of inventing **falsehood** and so will tell the truth when asked a question. However, the evidence gathered using this test is inadmissible in a court of law. Its result cannot be considered to be a "**confession**" (SC in Selvi case, 2010). Also, its result is not **100%** accurate.

**Other similar tests:** Polygraph Test (detects lie by the fluctuation in the physiological indicators such as blood pressure, pulse, respiration etc. ); P-300 test (Brain Mapping test).

### eDNA

eDNA is defined as "**genetic material obtained directly from environmental samples** (soil, sediment, water, etc.) without any obvious signs of the biological source material."

### HELS

- DRDO and a private company have partnered to develop **High Energy Laser System (HELS)** weapons to render a target ineffective without using a conventional munition.
- **HELS is a laser weapon of the Directed Energy Weapons (DEW) category** that could hit targets across the air, ground, sea and space.

- **Lasers** are a device that **generates an intense beam of coherent monochromatic light** (or other electromagnetic radiation) by stimulated emission of photons from excited atoms or molecules.
- **Projects using DEW technology are:** Directionally Unrestricted Ray-Gun Array (**DURGA II**), Kilo Ampere Linear Injector (**KALI**), Project Aditya and air defence dazzlers

## YUDH ABHYAS 2022

- 18<sup>th</sup> **Indo-US joint training Army exercise** will commence in Uttarakhand. The previous exercise was in the USA in 2021.
- The joint exercise will focus on **Humanitarian Assistance and Disaster Relief (HADR) operations** and peacekeeping operations.
- Yudh Abhyas's yearly exercise **started in 2004** and has been the **longest-running bilateral military training** project between the two countries.

## Hydrogen valleys

A **"Hydrogen Valley"** is a **geographical area** – a city, a region, an island or an industrial cluster – where **several hydrogen applications** are combined together into an **integrated hydrogen ecosystem** that consumes a significant amount of hydrogen, improving the economics behind the project.

**Why in news?** The DST under the **Clean Hydrogen Mission of "Mission Innovation"** has set in motion the process of identifying and setting up at least **3 Hydrogen Valleys by 2030**

## Freshwater turtles

- The recent report by **CITES** (in the ongoing COP19) has warned that habitat loss and illegal pet trade are driving the already **endangered Red-crowned Roofed Turtle (Batagur Kachuga)** to extinction.
- To reverse it, **India has proposed at the UN CITES** for the addition of the **riverine species Red-crowned Roofed Turtle** to **Appendix I** from **current Appendix II**

## Black-Naped Pheasant-Pigeon

- Black-Naped Pheasant-Pigeon was rediscovered after 140 years. Before the recent rediscovery, Black-Naped Pheasant-Pigeon was first and last seen in 1882. It is a large, terrestrial pigeon having black and orange feathers and red eyes.
- The species is endemic to Fergusson Island in Papua New Guinea.
- In July 2021, though the species' population is undetermined, was listed as a critically endangered species by the International Union for Conservation of Nature (IUCN), with an estimated population of 50 to 249 birds.



## Development of Great Nicobar: Ecological concerns

- Great Nicobar, **the southernmost** of the A&N Islands, has an area of 910 sq km. **Indira Point**, the southern tip of Great Nicobar Island is India's southernmost point and is less than 150 km from the northernmost island of the Indonesian archipelago.
- The Great Nicobar Island has **tropical wet evergreen forests**, mountain ranges reaching almost 650 m above sea level and coastal plains. It is rich in biodiversity with some endangered species of mammals, birds, reptiles and amphibians. The **leatherback sea turtle** is the island's flagship species.
- Great Nicobar is home to **two national parks** (Campbell Bay and Galathea), **a biosphere reserve and the Shompen and Nicobarese tribal peoples**. An estimated 237 Shompen (hunter-gatherers who depend on forest and marine resources) and 1,094 Nicobarese (relocated after the 2004 tsunami along the west coast) now live in a tribal reserve, some of which are proposed to be denotified.
- The approximately 8,000 settlers (ex-servicemen from Punjab, Maharashtra and Andhra Pradesh who were settled on the island in the 1970s) who live on the island are engaged in **agriculture, horticulture, and fishing**.

**Why in news?** The Union Ministry of Environment, Forest and Climate Change gave environmental clearance for the ambitious Rs 72,000 crore development project on the strategically important Great Nicobar Island.

**Concern:** It is an ecologically important and fragile region, the loss of tree cover will not only affect the flora and fauna on the island, but it will also lead to increased runoff and sediment deposits in the ocean, impacting the **coral reefs**

## Economics

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### Currency Monitoring List

- The US Department of Treasury removed India along with Italy, Mexico, Thailand and Vietnam from its Currency Monitoring List of major trading partners.
- The list closely monitors the currency practices and policies of some of the US' major trade partners **based on 3 specific criteria** – bilateral trade surplus (at least \$15 billion) with the US, current account surplus and intervention in the currency market.
- Once on the list, an economy will remain there for **at least two consecutive years**. India had been on the list for the last two years.
- **Implications:** Being on the list means being labelled as '**Currency Manipulator**'. This is a label given by the US government to countries it feels are **engaging in "unfair currency practices"** by deliberately devaluing their currency against the dollar.

### Amendment to Foreign Trade Policy (FTP)

- The government has **allowed invoicing and settlement** of exporters/importers in the Indian Rupee.
- Previously **exporters could avail of export promotion schemes** such as duty drawback only if the **payments were done in freely convertible currencies** such as the US dollar, British Pound etc.
- This will help in the **Internationalization of the Indian Rupee** ( increasing the use of the local currency in cross-border transactions). Currently, while the dollar accounts for **88% of international** trade, **Rupee** accounts for less than **1.7%** of global trade.
- **Other measures for the Internationalization of the Rupee** are the Currency Swaps Agreement, Cross-border borrowings in the Indian Rupee, and RBI's framework of trade settlement in the Rupee.

### Online Bond Platforms (OBPs)

SEBI has released the regulatory framework for OBP providers to regulate its activities and ensure **transparency**.

**OBPs are electronic systems** (similar to stock exchanges) on which debt securities can be transacted. It provides an avenue for investors, particularly **non-institutional investors** to access the bond market, however, their operations were outside Sebi's regulatory purview.

Therefore as per the new regulation, Online Bond Platform Providers (OBPPs) should be the **companies incorporated in India and registered as stock brokers in the debt segment of the stock exchange**

### VOSTRO Accounts

The **Reserve Bank of India (RBI)** has **allowed** the opening of **nine special Vostro accounts** (under Foreign Exchange Management (Deposit) Regulation, 2016) with two Indian lenders — UCO and IndusInd Bank — to facilitate overseas trade in rupee

A Vostro account is **an account a correspondent bank holds on behalf of another bank**.

### Old Pension Scheme vs NPS

#### National Pension Scheme (NPS):

- The NPS is a **voluntary and long-term** retirement investment plan administered by the Pension Fund Regulatory and Development Authority (PFRDA), Ministry of Finance, Government of India.
- It was launched in **January 2004** for government employees and it was decided to discontinue defined benefit pensions/OPS for all employees who joined after April 1, 2004.

#### The Old Pension Scheme:

- It was discontinued in 2004, however, it **guaranteed life-long income after retirement**.
- Typically, the insured amount is equal to **50% of the most recently drawn salary**
- The expenditure incurred on the pension is borne by the **government**

## Finfluencers

**‘Finfluencers’ ( or financial influencers)** are those who give advice to stock investors on various social media platforms like Twitter, Youtube, Instagram and Facebook.

### Need for guidelines:

- **Sharp rise in the number of various ‘unregistered’ investment** advisors giving **unsolicited** social media ‘stock’ tips on various social media platforms
- Reports that **certain companies used social media platforms** to boost their share prices through such finfluencers
- The rate of corporate **fraud is increasing** at a high pace

# Current Affairs Update (Nov 24-30)

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## National

### Constitution Day

The Constitution of India was adopted by the Constituent Assembly on **November 26, 1949**, for 'We the people of India'. After being unnoticed for a long, the day began to be celebrated as **Constitution Day** since 2015

#### Sources of Constitution:

- **Tilak's Swaraj Bill of 1895** (which included rights to free speech, free press, and equality before the law)
- **Declaration of Rights of 1918** (where the Indian National Congress demanded that civil and political rights include the right to life and liberty, freedom of press and association and for all this to be included in the Government of India Act 1919).
- **Resolution of Fundamental Rights and Economic Changes** at the Karachi Session of the Congress in 1931
- **Government of India Act, 1935**

### Online RTI portal: Making judiciary more transparent

The Supreme Court launched an online portal that will help citizens file and access applications under the Right to Information (RTI) Act 2005 in matters related to the court. So far, RTI applications at the SC had to be filed only via post.

**When can one expect a reply?** By law, RTIs must be replied to within 30 days. In fact, RTIs must be answered within 48 hours in life-and-death situations.

**Significance:** Various public interest litigation (PILs) had been filed before the SC seeking an online portal for the Court, the new portal will provide the same when it comes to the filing of RTI applications, thus **making the higher judiciary more approachable**.

### The Indian Constitution on the transfer of judges

- **Article 222:** It provides for the transfer of HC judges, including the Chief Justice. The **President, after consultation with the CJI**, may transfer a judge from one HC to any other HC and a **compensatory allowance** is provided to the transferred judge.
- **Interpretation:** The executive could transfer a judge, but only after consulting the CJI.

- The proposal for transferring a HC judge (including a Chief Justice) should be **initiated by the CJI** and the consent of the judge is not required. All transfers are to be made in the **public interest**.

### Minority Status

- SC has asked the Centre to consult states/UTs on the petition to grant minority status to Hindus.
- Although the constitution doesn't define '**Minority**'; under **National Commission for Minorities Act, 1992**, the centre has declared **Muslims, Christians, Sikhs, Buddhists, Jains and Zoroastrians** as 'minorities'. The status of minorities is state-wise and not district-wise (SC in TMA Pai Case, 2002)
- Of the 28 states in India, Hindus form the majority in 22 states except for **Punjab (Sikh majority)**, **Meghalaya, Arunachal Pradesh, Nagaland, and Mizoram (Christian majority)**.

### Lachit Borphukan: 400<sup>th</sup> birth anniversary celebration

- **Lachit Borphukan** was a general in the **Ahom dynasty** (Assam, 17th CE) and is best known for the **Battle of Saraighat** (on the banks of Brahmaputra), where he defeated the **Mughals** in 1671.
- **The Ahom dynasty (1228–1826)** was established by **Sukaphaa, a Shan prince** of Mong Mao (present-day Yunnan, China). The rule of this dynasty ended with the **Burmese invasion of Assam** and the subsequent annexation by the British East India Company following the **Treaty of Yandabo** in 1826

### Kuki-Chins

More than 270 members of the Kuki-Chin community from Bangladesh who entered Mizoram are being referred to as "**officially displaced persons**" in State government records, as India does not have a law on refugees. According to the Ministry of Home Affairs (MHA), foreign nationals who enter the country without valid travel documents are treated as **illegal immigrants**.

**The Kuki people** are an ethnic group native to the Mizo Hills (formerly Lushai) in India. They constitute one of several hill tribes within India, Bangladesh and Myanmar. **The Chin people of Myanmar and the Mizo people** of Mizoram are related tribes of the Kukis. **The Kuki-Chin** is a Christian community from Bangladesh's Chittagong Hill Tracts, which shares close ethnic ties with people in Mizoram.

### Tribal Development Report 2022

- India's tribal communities form **8.6 percent** of the country's population according to the **2011 Census**. However, they are at the **bottom of the country's development pyramid** even after 75 years of independence, according to a new report.
- The Tribal Development Report 2022, launched by the **Bharat Rural Livelihood Foundation (BRLF)** in two volumes, claims to be **the first of its kind since 1947**.

- The report stated that **indigenous communities of India have been pushed farther away from alluvial plains and fertile river basins** into the harshest ecological regions of the country like hills, forests, and drylands.
- The goal is to **inform stakeholders, including key policymakers, practitioners, activists, and academics**, to help understand the scope of tribal issues.

## Langpih

A major point of contention between Assam and Meghalaya is the **district of Langpih** in West Garo Hills bordering the Kamrup district of Assam. Assam considers it to be part of **the Mikir Hills in Assam**. Meghalaya says these were parts of erstwhile United **Khasi and Jaintia Hills districts, and therefore part of Meghalaya**.

Meghalaya was carved out of Assam & **became a full-fledged state in 1972**. They share **884 km** of border. **12 points of dispute** between the two states emerged when **Meghalaya refused to accept the Assam Reorganization (Meghalaya) Act of 1969**. Out of the 12, border disputes along six sectors have been partially resolved last year (2021).

## India's 2023 Republic Day Chief Guest

India has invited **Egypt President Fattah al-Sisi** as the chief guest on 2023 Republic Day. This makes al-Sisi the first Republic Day Chief Guest after a two-year hiatus caused by the pandemic.

Being chosen as the Republic Day's Chief Guest is the highest honour India accords in terms of protocol. The Chief Guest is often the front and centre of many ceremonial activities during this occasion. He is provided with the ceremonial guard of honour at Rashtrapati Bhavan, followed by a reception hosted by the President of India in the evening.

# International

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## India-Australia Economic Cooperation and Trade Agreement (ECTA)

**Australian Parliament ratified India-Australia Economic Cooperation and Trade Agreement (ECTA)** in a landmark moment for India.

### Why the deal is a landmark?

- It is **1<sup>st</sup> such agreement for India with a developed country**: India has free trade deals mostly with South Asian countries and hardly served India's trade interests.
- Shows **India's negotiating skills**
- The deal has the potential to raise bilateral trade between India and Australia to **nearly \$50 bn** in the next five years and create **at least 10 lakh jobs** in the start-up economy.

- Provide a **model for future FTA** with other developed countries

**Key features of the deal:**

- **Duty-free access to the Australian market** for over 6000 broad sectors e.g., labour-intensive exports in textiles, leather, furniture, jewellery etc. More importantly for India, sensitive sectors such as Dairy and Agriculture have been excluded.
- **Reduce the import prices for a number of commodities for India:** duty-free import of Indian wines, and Australian coal at competitive rates.
- **Includes service sector** (important for India labour) such as IT, Health, ITES etc.
- **Covers India's concerns** on Rules of Origin (RoO), Sanitary and Phytosanitary (SPS) measures, movement of persons etc.eg., **the 'Melt and Pour' provision for the steel industry:** It only allows Steel that is produced locally in Australia can be imported into India
- **Movement of Trained Professional:** The deal provides for **an annual quota of 1,800 for yoga teachers and Indian chefs** and a commitment to over one lakh of India's outgoing students to Australia for post-study work visas.
- **Resolves DTAA:** The trade deal also resolves the long-pending Double Taxation Avoidance Agreement (DTAA) related to IT/ITES.

**Mauna Loa**

Mauna Loa, the world's largest active volcano erupted after 38 years spewing ash and debris. Mauna Loa Mauna Loa is among the 5 volcanoes that together make up the Big Island of Hawaii – the Hawaiian archipelago's southernmost island.

**Why do volcanoes erupt?**

Chambers, which have the potential to cause volcanic eruptions, are found at a relatively shallow depth, between **six to ten km under the surface**. As magma builds up in these chambers, it forces its way up through cracks and fissures in Earth's crust. This is what we call a volcanic eruption. **The magma that surfaces on the Earth's crust is referred to as lava.**

**Fujiwhara Effect**

The Fujiwhara Effect is any **interaction between tropical storms** formed around the same time in the same ocean region with their **centers or eyes at a distance of less than 1,400 km**, with an intensity that could vary between a depression (wind speed under 63 km per hour) and a super typhoon (wind speed over 209 km per hour).

The Fujiwhara effect was identified by **Sakuhei Fujiwhara**, a Japanese meteorologist whose first paper recognizing the Fujiwhara cases was **published in 1921**. The first known instance of the effect was in 1964 in the western Pacific Ocean when typhoons Marie and Kathy merged.

**Why in news?** Recently two cyclones **Hinnamnor** and another tropical storm called **Gardo** showcased a classic example of what is known as the Fujiwhara Effect.

### Great Barrier Reef

- It is the **world's largest coral reef system** created by billions of small animals called coral polyps.
- It is located in the Coral Sea, **off the coast of Queensland**, Australia, and this world's largest single structure built by living creatures is visible from space.
- It supports a diverse range of life and was designated a **World Heritage Site in 1981**
- A UN panel recommended that Australia's Great Barrier Reef be designated as a world heritage site "in danger".
- The reef is under threat from **frequent bleaching events**, including the first this year amid a La Nina phenomena, which normally brings colder temperatures.
- Bleaching occurs when the water temperature rises too high, **leading corals to expel the colourful algae** that live in their tissues and turn white.

### India's G20 agenda

- **Inclusive:** India's G20 Presidency will work to promote **the universal sense of one-ness**. Hence, "**One Earth, One Family, One Future**" is the theme of India's G20 Presidency. It takes into account recent changes in human circumstances. **For example**, the greatest challenges the world face today are **climate change, terrorism and pandemics**, which can be solved not by fighting, but only by acting together.
- **Ambitious:** The previous 17 Presidencies delivered towards ensuring macro-economic stability, rationalising international taxation, relieving debt burden on countries, etc. India will further work on the achievements of these.
- **Action-oriented:** India's G20 priorities will be shaped **in consultation with not just G20 partners**, but with the **Global South**, whose voice often goes unheard.
- **Decisive:** India will encourage sustainable and environment-friendly lifestyles, based on India's tradition of **trusteeship towards nature**.

## Awards

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### Champions of the Earth award

- **Indian wildlife biologist** Dr Purnima Devi Barman was recently awarded the Champions of the Earth award in the **Entrepreneurial Vision category**, the UN's highest environmental honour.
- She is the founder of the **Hargila Army** (female-led conservation volunteers to protect Greater Adjutant Stork) and senior project manager of the **Avifauna Research and Conservation Division**, Aaranyak.



- **Champions of the Earth award** is awarded (since 2005) annually to outstanding leaders/organizations from government, Civil society and the Private sector

## Science-Tech & Environment

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### Bluebugging

- It is a **form of hacking** (started out as a threat for laptops with Bluetooth capability) that lets attackers access a device through its discoverable Bluetooth connection.
- Once a device or phone is bluebugged, a hacker **can listen to the calls, read and send messages and steal and modify contacts.**

**Prevention:** Turning off Bluetooth and disconnecting paired Bluetooth devices when not in use, updating the device's system software to the latest version, limited use of public Wi-Fi, and using VPN as an additional security measure.

### WHO will now call monkeypox – 'mpox'

- The World Health Organisation (WHO) announced that it would start using the term "**mpox**" for **monkeypox as the name was racist and stigmatizing**
- Monkeypox, which was named in 1970 because the **virus** that causes the disease was first discovered in **captive monkeys in 1958, does not have much to do with monkeys.**
- The most likely reservoir for the virus, which has circulated for several years in a few central African countries after jumping to humans **through zoonosis in the bush, are rodents.**

### GM Mustard introduction: Concern raised by experts

Experts express concern regarding the recent recommendation of the Genetic Engineering Appraisal Committee (GEAC) for approval for the environmental release of genetically engineered (GE) mustard (DMH-11 hybrid) in India.

- The potentially harmful **long-term ecological and economic consequences** of releasing DMH-11.
- **Details of the mandatory trials** to ensure food-environmental safety – a prerequisite before environmental release **have not been made public.**
- A detailed long-term assessment of the **potential social and economic benefits** of using DMH-11 remains to be made.
- Will cause **displacement of manual labour engaged in weeding as the GM mustard is weed tolerant.**
- The new system may threaten the **population of honey bees** as mustard flowers are a source of nectar for honey bees.
- Disastrous effect of the spread of a herbicide resistance (HT) gene on the normal crop.

### Jeypore Ground Gecko

- A reptile **endemic to India**, the Jeypore Ground Gecko, has been included in **Appendix II** of the Convention on International Trade in Endangered Species (CITES).
- The proposal to include the gecko in Appendix II was made by India at the recently-concluded COP19 to CITES in Panama City. However, the species does not occur in the protected areas described under the **Wild Life (Protection) Act, 1972**.
- In 2019, the Jeypore Ground Gecko was assessed for the International Union for Conservation of Nature (IUCN)'s Red List of Threatened Species and was listed as '**endangered**'.
- The wild reptile species is found in the **Eastern Ghats** and is known to be present in four locations including southern Odisha and northern Andhra Pradesh.

### CITES COP19 downgrades the status of southern white rhino

In a major setback to rhino conservation in Africa, the proposal to downgrade the status of southern white rhinos **from Appendix I to Appendix II was accepted** at the 19th Conference of Parties (COP19).

The animals named under **Appendix II may not necessarily be threatened with extinction**, but the trade of such species should be controlled to ensure it does not threaten their existence.

### Austra Hind 22

A bilateral training exercise – Austra Hind 22 – between the armies of India and Australia is scheduled to take place at Mahajan Field Firing Ranges (Rajasthan). This is the **first exercise** in the series of Austra-Hind with the participation of all arms and services contingent from both armies.

### GARUDA SHAKTI

The Exercise is the **eighth edition** of the series of bilateral exercises between India and Indonesia and is part of the **military-to-military** exchange programs.

### Semi-Automated Offside Technology

- FIFA is using **SAOT for offside decisions** in the ongoing football world cup.
- There are **two parts to the technology** — a sensor inside the **match ball (Adidas's Al Rihla)** that is held using **suspension technology**, and existing tracking tools that are part of the VAR system.
- Every time the ball is hit, **data is sent in real-time (at a whopping 500 frames per second)** to a network of antennae installed around the playing field. Additionally, there are **12 Hawk-Eye cameras** set up around the turf that shadow both the ball and the players, with as many as 29 separate points in the human body tracked.
- The coming together of **the ball sensor and the Hawk-Eye cameras** is in effect SAOT, which allows for decisions that are **highly accurate and quick**. These two data sets are run through artificial intelligence software which generates automated alerts about offsides to the match officials.

## Carbon Capture Utilisation and Storage (CCUS)

- NITI Aayog recently released a report on the policy framework of Carbon Capture Utilisation and Storage (CCUS) – a technology for decarbonizing carbon dioxide (CO<sub>2</sub>) from high-polluting sectors.
- The CCUS technology would aid in the promotion of a **low-carbon-hydrogen economy** and the **removal of CO<sub>2</sub>** from the atmosphere.
- CCUS could enable the development of **clean products** (green methanol, green ammonia) while utilising abundant coal resources, lowering imports, and leading to an **economically self-sufficient India**.
- CCUS also plays a significant role in **supporting sunrise sectors** like coal gasification and India's budding hydrogen economy.
- **The key challenge:** To reduce the cost of the mechanisms to implement the technology. Carbon capture, for example, needs the development of molecules capable of binding CO<sub>2</sub> in the exhaust gas, which is costly.

## Manipur Sangai Festival

- **The theme of the Sangai Festival** – 'Festival of One-ness'
- **Sangai** is the state animal of Manipur and has a special place in India's faith and beliefs.
- The **Sangai Festival** also celebrates the biodiversity of India
- **Brow-antlered deer common Name:** Sangai, Dancing Deer
- **Status:** State animal of Manipur, Schedule-1 of Wildlife (Protection) Act, 1972
- **Endangered** on IUCN Red List

## India's First Private Vehicle Launch pad

- Chennai-based space tech startup Agnikul Cosmos recently opened India's first private launchpad and mission control centre at the Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh.
- It is first exclusive Launchpad for launching private launch vehicles.
- It is designed specifically to support liquid stage controlled launches and help ISRO range operations team to monitor flight safety parameters during launches.
- Agnikul's inaugural launch of the Agnibaan rocket will take place from this Launchpad. Agnibaan rocket is a customizable two-stage launch vehicle capable of carrying up to 100 kg payload to orbits some 700 km high (low earth orbits).

# Economics

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## India's push for millets

At India's led initiative for the UN's International Year of Millets 2023, India has called **"Covid, conflict, and climate"** the world's main food security challenges, and placed the **cultivation and popularisation of millets** in the context of the wider imperative of **"de-risking the global economy"**.

**Millets** are a group of **highly variable small-seeded grasses**, widely grown around the world as cereal crops or grains for fodder and human food.

### Benefits of Millets:

- **Nutritional Security:** cheap and more nutritious. For E.g. Ragi has the highest calcium content and high iron content and can fight the high prevalence of anaemia.
- **Climate Resilient:** they are known as hardy and drought-resistant crops. They require much less water than rice and wheat and are mainly grown in rainfed areas.
- **Economic Security:** low investment for inputs
- **Against Health Issues:** Millets are **gluten-free** and have a **low glycemic index** (glucose level) and therefore can help in tackling lifestyle problems and health challenges such as obesity and diabetes.
- Millets have **antiaging and antioxidant**
- Millets are considered to be **"powerhouses of nutrition"**. In 2018, the Agriculture Ministry declared millets as **"Nutri Cereals"**

## Insider trading

- It is the malpractice of selling or buying securities (equity/bonds) by the insiders of a company using unpublished price-sensitive information (UPSI) that can **affect the stock price that has not been disclosed yet**.
- The SEBI defines an **'insider'** as someone who has access to price-sensitive information about a particular company's shares or securities and who has been associated with the company during the 6 months preceding the insider trade.

## Direct Benefit Transfer (DBT)

- In 2013, the Government of India, introduced the DBT scheme to transfer subsidy benefits from various Indian welfare schemes **directly into the beneficiaries' bank accounts**.
- It was introduced with the **objectives** –To streamline the transfer of government-provided subsidies in India.To improve the **delivery system and redesign the existing procedures** in welfare schemes.

### Benefits of DBT subsuming farm subsidies:

- Transparent and simple to administer.

- It is **crop-neutral**. For example, only rice, wheat and sugarcane farmers effectively get minimum support prices (MSPs) now.
- Does not cause distortions in input/output markets.

**Limitations of the present agri-DBT schemes:**

**The exclusion of tenant farmers** – who undertake cultivation on leased land. According to the National Statistical Office's (NSO) 2018-19 assessment, **3%** out of the total estimated 101.98 million operational holdings in rural India were on leased lands.

**Example agri-DBT schemes in India:** The Centre's Pradhan Mantri Kisan Samman Nidhi (**PM-Kisan**) – an annual income support of Rs 6,000 to all landholding farmer families in India.

**Central Bank Digital Currency (CBDC)**

- Reserve Bank of India (RBI) has announced the launch of India's much-awaited Central Bank Digital Currency (CBDC), a sort of official cryptocurrency, for retail users from December 1.
- CBDC is the **legal tender** issued by a central bank in **digital form**. This means, it is the same as a fiat currency and is exchangeable one-to-one with the fiat currency, but different in its form.
- The RBI has often expressed worries about private cryptocurrencies (Bitcoin, Ether) being used for **money laundering, terror financing, and tax evasion**.
- The introduction of its own CBDC has been viewed as a means of **bridging the benefits and risks of digital currency**.

**Advantages of the e-rupee:**

- **Reduces operational costs** involved in physical cash management
- Foster financial inclusion
- **Improve transparency** in money flows and could help reduce currency substitution (a country uses a foreign currency in addition to/ instead of, its own)
- Brings resilience, efficiency (to the settlement system), and innovation (in cross-border payments space) in the payments system
- Provide the public with the same benefits as private virtual currencies offer, but **without the risks**.

**Global examples:**

- As of 2022, there were nearly 100 digital currencies by various global central banks in R&D stages and **two fully launched** – the **eNaira** in Nigeria and the **Bahamian sand dollar**.
- Countries have different motives for exploring and issuing CBDCs, but the Bahamas issued them **to serve unbanked and under-banked populations**.