

TAKE A STEP TO REGULATE DEEPFAKES

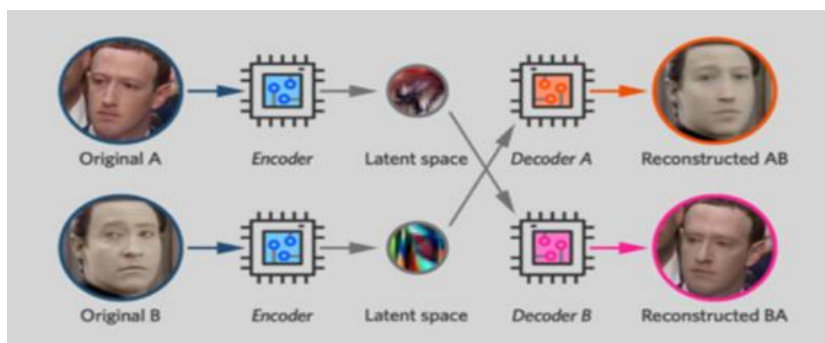
Context:

- The lack of suitable regulations opens the door for individuals, businesses, and even non-state entities to misuse Artificial Intelligence (AI), as seen in the case of deepfakes - an application of AI.
- The article demonstrates how self/no-regulation can be fatal at times, and the need to regulate AI in India in order to avoid its misuse in the form of deepfakes.

What is Deepfake?

- Deepfake uses **deep learning techniques in AI** to generate videos, photos, or news that **seems real but is actually fake**.
- These techniques can be used to **synthesise faces, replace facial expressions, synthesise voices,** and generate news.
- This technique is also used to **create special effects in movies**. However, more recently this technique is being **widely used by criminals to create disinformation**.
- **For example**, in March 2022, Ukrainian President Volodymyr Zelensky revealed that a video posted on social media in which he appeared to be instructing Ukrainian soldiers to surrender to Russian forces was actually a deepfake.

How does Deepfake Work?



- Deepfake techniques rely on a deep learning technique called **autoencoder**, which is a type of Artificial Neural Network (ANN) which contains an **encoder and a decoder**.

- **The input data** is first decomposed into an encoded representation then these encoded representations are reconstructed into new images which are close to input images.
- **Deepfake software** works by combining several autoencoders, one for the original face and one for the new face

Issues with Deepfakes:

- **Spread misinformation and propaganda:** Deep fakes seriously compromise the public's ability to distinguish between fact and fiction.
- **Can depict someone in a compromising and embarrassing situation:** For instance, deepfake pornographic material of celebrities not only amounts to an **invasion of privacy**, but also to harassment.
- **Used for financial fraud:** Scammers recently used AI-powered software to deceive the CEO of a U.K. energy company into thinking he was speaking with the CEO of the German parent company over the phone.
 - As a result, the CEO transferred a large sum of money (€2,20,000) to what he thought was a supplier.
- **'Liar's Dividend':** This refers to the idea that individuals can take advantage of the growing awareness and prevalence of deepfake technology by denying the authenticity of certain content.

What Needs to be Done?

- **Separate legislation:** The government of India should introduce separate legislation regulating the illicit use of deepfakes and the broader subject of AI. The proposed **Digital India Bill** can also address this issue.
- **Salient features of such a law:**
 - **Should not hamper innovation in AI**
 - Should recognise that deepfake technology may be used in the commission of criminal acts
 - Should provide provisions to address the use of deepfakes

WHAT IS NATIONAL COMPANY LAW TRIBUNAL (NCLT)?

Recently, NCLT allows ownership transfer of Jet Airways to Jalan-Kalrock consortium



About National Company Law Tribunal (NCLT):

- **What is it?** It is a **quasi-judicial authority** incorporated for **dealing with corporate disputes that are of civil nature** arising under the **Companies Act,2013**.
- **Established:** It was constituted on 1 June 2016 under the **Companies Act,2013**.
- **Committee:** NCLT was formed based on the recommendation of the **Balakrishna Eradi committee** on law relating to the insolvency and the winding up of companies.
- **Composition:** The NCLT shall consist of a President and such number of Judicial and Technical Members as may be required.
- **Powers:**
 - It is **not limited or bound by the rules laid down in the Code of Civil Procedure** and is **guided by the principles of natural justice**, subject to the other provisions of this Act and of any rules that are made by the Central Government.
 - The **NCLT can enforce any order** that it gives in the same manner as a court would enforce it.
 - NCLT has the **power to scrutinize its own orders**.
 - The tribunal has the power to regulate their own procedure.
 - National Company Law Tribunal is the **adjudicating authority for the insolvency resolution process** of companies and limited liability partnerships **under the Insolvency and Bankruptcy Code, 2016**.

GANGASAGAR MELA

West Bengal ministers have demanded National Mela status for Gangasagar mela as record pilgrims have come to the mela this year claiming that the annual pilgrimage was turning out to be the biggest religious gathering in the country.



About Gangasagar Mela:

- It is known as the world's second largest human congregation after

Kumbh.

- It happens every year during **Makar Sankranti**.
- The mela is held at **Sagar Island**.
- It has been mentioned in Indian epics such as the Ramayana and Mahabharata, putting its existence as early as 400 BCE.
- The pilgrims after taking a dip in Ganga also visit the **temple of Kapil Muni**.

Who is Kapil Muni:

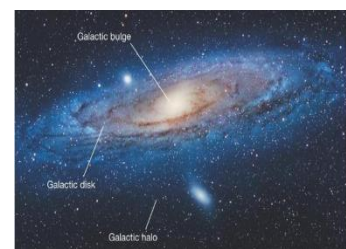
- Kapila or Maharishi Kapila is a Vedic sage (rishi) traditionally **considered to be the original proponent of the Samkhya system** of Indian philosophy.
- He is said to have lived in the Indian subcontinent, around the **sixth or seventh century C.E.**
- Kapila is described within the Puranas as an **incarnation of Vishnu**.
- He is known for teaching a process of liberation known as **bhakti yoga**.
- Buddhist sources present Kapila as a **well-known philosopher whose students built the city of Kapilavastu**
- He is not only renowned in Hinduism, but also in Buddhism.
- Kapila shared **many similarities with Buddha**, including an **emphasis on meditation** as a technique for removing suffering, **belief that the Vedic gods were subject to limitations and conditions, and dislike for ritual and Brahmanic doctrines**.

Where is Sagar Island Located?

- Sagar Island, **westernmost island of the Ganges-Brahmaputra delta** lies in **West Bengal**
- It lies at the **mouth of the Hugli (Hooghly) River**, an arm of which separates it from the mainland to the east.

WHAT IS A GALACTIC HALO?

Astronomers have recently detected in the stellar halo that represents the Milky Way's outer limits a group of stars more distant from Earth than any known within our own galaxy - almost halfway to a neighboring galaxy.



What is a Galactic halo?

- Galactic halo is a **nearly spherical volume of thinly scattered stars, globular clusters of stars, and tenuous gas observed surrounding spiral galaxies**, including the Milky Way.
- Galactic halo is **dominated by invisible dark matter**, whose presence is only measurable through the gravity that it exerts.
- **Only about 1% of a galaxy's stellar mass resides in its halo**, and due to this low luminosity, the observation of halos in other galaxies is extremely difficult.

What is Stellar halo?

- It is the **visible portion of a galactic halo**.
- It is **composed of globular clusters and field stars** which have high space velocities that can take them far out of the galactic disk.
- Stellar halos may **hold some of the best preserved fossils of the formation history of galaxies**.

What are Globular clusters?

- They are **stable, tightly bound clusters of tens of thousands to millions of stars**.
- They are associated with all types of galaxies.
- They are more **densely populated**, with populations ranging from tens of thousands to millions of stars.
- The **intense gravitational attraction** between the closely packed stars gives globular clusters their regular, spherical shape.

What is meant by a field star?

- **Stars that are not connected with an astronomical object being studied** but which happen to appear in the same field of view when the object is observed through a telescope. Typical examples of field stars are those that appear in the foreground of a telescopic image of a distant galaxy.
- A field star is **not part of any stellar cluster such as a globular cluster or open cluster**.

NEELAKURINJI

Recently, The Ministry of Environment, Forest and Climate Change (MoEF) has listed Neelakurinji under Schedule III of the Wildlife (Protection) Act, 1972, including it on the list of protected plants.



Why in news?

- According to the recent orders, those who uproot or destroy the plant will invite a fine of ₹25,000 and three years imprisonment. The cultivation of this and its possession is not allowed,
- Neelakurinji has been included on the list when the Centre expanded the earlier protected list of six plant species to 19.

About Neelakurinji

- Neelakurinji is scientifically known as *Strobilanthes Kunthiana*,
- It is a shrub that grows in the **shola forests of the Western Ghats** in South India.
- The plant is named after the famous **Kunthi River** which flows through Kerala's Silent Valley National Park, where the plant occurs abundantly.
- It is found at an altitude of 1,300-2,400 metres.
- This flower blooms once in **12 years** as the pollination of flowers needs a longer period.
- It is mainly found in the states of Kerala, Tamil Nadu, and Karnataka.

The Wildlife (Protection) Act, 1972

- This act was enacted for the **protection of plants and animal species**.
- Also, this act established **schedules of protected plant and animal species**; hunting or harvesting of these species was largely outlawed.

CENTRE VS DELHI GOVT ON CONTROL OVER SERVICES – TIMELINE OF A DISPUTE

Why in News?

- A five-judge Constitution Bench of the Supreme Court is hearing a dispute between the Delhi government and the Central government over the control of services.
- Almost five years ago, another Constitution Bench had ruled in favour of the State government in a similar tussle.

What is the Present Dispute?

- A five-judge Constitution Bench of the Supreme Court is hearing the dispute between the Delhi government and the Central government.
- The dispute is over matters pertaining to **control over the transfers and the overall functioning of administrative services in the National Capital Territory (NCT) of Delhi.**
 - The administrative services include appointments and transfers, in the national capital.

What is a Constitution Bench?

- **Article 145(3)** deals with the setting up of a Constitution Bench of the Supreme Court comprising at least five judges “for the purpose of deciding any case involving a substantial question of law as to the interpretation” of the Constitution.
- This is the second time that a constitutional bench has been set up to decide on issues between the Delhi government and Delhi’s Lieutenant Governor — the Centre’s representative in the capital — in the past four years.

What gave rise to the Dispute?

- Article 239 AA was inserted in the Constitution by the 69th Constitutional Amendment Act, 1991.
- Based on the recommendations of S Balakrishnan Committee, it gave special status to Delhi.
- It says that the **National Capital Territory (NCT) of Delhi will have an Administrator and a Legislative Assembly.**
- The Legislative Assembly “shall have power to make laws for the whole or any part of the NCT w.r.t. any of the matters in the State List or Concurrent List in so far as any such matter is applicable to Union territories”.
- However, the legislative assembly of Delhi cannot legislate on the following three subjects – **Police, Public Order, and Land.**

- However, in the past few years, governance in the NCT has often been a subject of conflict between the Delhi government and the L-G.

Control over Administrative Services:

- In 2019, a two-judge bench of the SC delivered a split verdict on the aspect of who controls administrative services in Delhi.
- The two-judge bench had recommended that a three-judge bench be set up to decide the issue of control of administrative services.
- Further, in May 2022, a three-judge Bench had referred this case to a larger Bench on the Central government's plea.
- The three-judge Bench had decided that the question of control over administrative services required "further examination".

Central & State Government's Arguments:

- The Central Government has consistently maintained that because Delhi is the national capital and the face of the country, it must have control over administrative services, which include appointments and transfers.
- On the other hand, the Delhi government has argued that in the interest of federalism, the elected representatives must have power over transfers and postings.
- The government had also contended that the recent amendments to the Government of National Capital Territory of Delhi (Amendment) Act, 2021, **violate the doctrine of basic structure of the Constitution.**

MV GANGA VILAS: PM FLAGS OFF WORLD'S LONGEST RIVER CRUISE

Why in News?

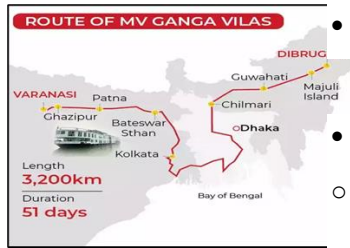
- Recently, the Prime Minister Modi flagged off the world's longest river cruise - MV Ganga Vilas, and laid the foundation of several schemes and inaugurated other projects (including tent city at Varanasi) worth more than ₹1,000 crore for Varanasi.

What is the importance of waterways?

- India has more than 125 rivers and river streams which can be developed to transport goods and ferry people while also giving **impetus to further expanding port-led development**.
- Waterways are not just **beneficial to the environment but also help in saving money**, as the cost of operating waterways is 2.5 times lesser than that of roadways, and one-third lesser when compared to railways.
- Highlighted in the National Logistics Policy 2022, **India has the potential** to develop a waterway network of thousands of kms. The need is to build a modern **multi-modal network of waterways**.
- The PM will soon inaugurate **Haldia Multi-Modal Terminal** (developed under Jal Marg Vikas Project) in West Bengal.
 - It will have a cargo handling capacity of over 3 Million Metric Tonne Per Annum (MMTPA) and the berths are designed to handle vessels up to around 3000 Deadweight tonnage (DWT).

What is MV Ganga Vilas?

- MV Ganga Vilas is a cruise that will begin its journey from Varanasi in Uttar Pradesh and travel around **3,200 km** in 51 days to reach Dibrugarh in Assam via Bangladesh.
- It will **sail across 27 river systems in India and Bangladesh** (including Ganga, Hooghly, etc) and will cover **50 tourist spots** (like Kashi, Patna Sahib, Bodh Gaya, Vikramshila and the Sundarbans) including World Heritage Sites, National Parks, River Ghats.
- It will pass through **major cities** like Patna in Bihar, Sahibganj in Jharkhand, Kolkata in West Bengal, Dhaka in Bangladesh and Guwahati in Assam.
- While it will be managed by private operators, the **Inland Waterways Authority of India (IWAI)**, under the Ministry of Shipping, Ports and Waterways, has supported the project.
- The journey of MV Ganga Vilas, will allow tourists to engage on an experiential voyage and **immerse themselves in the art, culture, history, and spirituality of India and Bangladesh**.
- With this cruise service boost, the huge untapped potential of river cruises will be unlocked and it will **herald a new age of river cruise tourism for India** and create new employment opportunities.



News Summary with Respect to the Launch Event:

• Main points of the PM's speech at the event

- This decade of the **21st century** is a **decade of infrastructure transformation** in India. From social (houses, toilets, hospitals) to digital, physical connectivity infrastructure (railways, waterways), all are strong indicators of the rapid growth of India.
- In 2014, only 5 national waterways were in the country, now there are **111 national waterways** in the country and about two dozen are in operation already.
- Similarly, there has been **3 times increase in cargo transportation** via river waterways from 30 lakh metric tonnes 8 years ago.
- Emphasising the need for training of the staff and skilled workforce, a **Skill Development Center has been set up in Guwahati** and a new facility is also being constructed in Guwahati for the repairing of ships.
- **What is the significance of the event?**
 - India is entering into a **robust phase of tourism** as with a growing global profile, curiosity about India is also increasing and **today's event is a reflection of the policies**, decisions and direction taken in the country.
 - It will help in **making eastern India a growth engine for Developed India**, by connecting Haldia multimodal terminal with Varanasi and with India-Bangladesh protocol route and Northeast.
 - This will facilitate business from Uttar Pradesh, Bihar, Jharkhand, and West Bengal to Bangladesh via **Kolkata port**.
 - A cruise ship or a cargo ship would **not only give a boost to transport and tourism, but the entire industry associated** with their service also creates new opportunities.
 - The river of India will give **new heights to water power and trade and tourism**, which is essential for building a developed India.