



RACE IAS

Daily current affairs

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Draft of New IT Act to be out soon:

Context:

In the first step towards overhauling the two-decade old IT Act, the government has said it will put up the draft of the proposed new legislative framework for public consultation as soon as next month.

- The government is looking at a new legislative framework with the new rulemaking capabilities that deal with various issues related to the digital space, in a very modern, contemporary and harmonized way.

Information Technology Act, 2000:

- It is the primary law in India for matters related to cybercrime and e-commerce.
- The act was enacted to give legal sanction to electronic commerce and electronic transactions, to enable e-governance, and also to prevent cybercrime.
- Under this law, for any crime involving a computer or a network located in India, foreign nationals can also be charged.
- The law prescribes penalties for various cybercrimes and fraud through digital/electronic format.
- It also gives legal recognition to digital signatures.

The flaws of IT Act 2000 are:

Privacy issues: The IT Act also doesn't address privacy issues - privacy is now a fundamental right and the law needs to specifically address privacy concerns, but that's not the case.

Poor protection of cybersecurity: The Indian IT Act is not a cybersecurity law and therefore does not deal with the nuances of cybersecurity.

Lack of expertise: Regular police personnel, specifically any officer holding the rank of inspector, are responsible for investigating nefarious online activities.

Section 66A of the IT Act: In *Shreya Singhal vs. Union of India* (2015), the Supreme court struck down Section 66A of the IT Act.

Need of the hour:

- The Indian IT Act, 2000 needs to be amended to deal with the nuances of cybersecurity.
- The Act needs to be future-proofed so as to cover emerging technologies and the challenges it brings in its wake.
- Eliminate "safe-harbor" provisions that exempt intermediaries from liability.
- Keep up with the agile cyber-space; fast track amendments and roll-outs.
- Empower CERT and enforce stricter and substantial penalties on defaulters.
- Address privacy issues in the existing IT Act.
- Learn from data breach notification laws implemented by other countries and avoid superficial changes.
- More collaboration with private players and cybersecurity experts and not leaving amendments to bureaucrats.
- Amend Act to introduce ODR (Online Dispute Resolution)
- Akin to the RBI's mandate for a bank to report a breach within six hours, CERT needs to come up with the same guidelines for other institutions to enforce cyber vigilance.

Sources: the Hindu.

International Finance Corporation (IFC):

Context:

The Medical Education and Drugs Department (MEDD) and **International Finance Corporation (IFC)** have joined forces to prioritise health care projects with emphasis on Medical Education under the public-private partnership (PPP) model in Maharashtra.

- IFC will be the transaction advisor for the PPPs to develop super-specialty hospitals and medical education facilities across the state.

About the International Finance Corporation (IFC):

- It is an international financial institution that offers investment, advisory, and asset management services to encourage private sector development in developing countries.
- It is a member of the World Bank Group and is headquartered in Washington, D.C., United States.
- It was established in 1956 as the private sector arm of the World Bank Group to advance economic development by investing in strictly for-profit and commercial projects that purport to reduce poverty and promote development.
- The IFC is owned and governed by its member countries, but has its own executive leadership and staff that conduct its normal business operations.
- It is a corporation whose shareholders are member governments that provide paid-in capital and which have the right to vote on its matters.



Roles and functions:

1. Since 2009, the IFC has focused on a set of development goals that its projects are expected to target. Its goals are to increase sustainable agriculture opportunities, improve healthcare and education, increase access to financing for microfinance and business clients, advance infrastructure, help small businesses grow revenues, and invest in climate health.
2. It offers an array of debt and equity financing services and helps companies face their risk exposures while refraining from participating in a management capacity.

3. It advises governments on building infrastructure and partnerships to further support private sector development.

Sources: down to earth.

BharatNet project:

Context:

The delay in the Bharatnet project, aimed at connecting gram panchayats through broadband, has resulted in a cost escalation from Rs 20,100 crore to Rs 61,109 crore.

- This is partly due to the ineffectiveness of Bharat Broadband Network (BBNL), the entity set up to implement the project to connect 250,000 gram panchayats with optic fibre, for high-speed broadband connectivity.
- With BBNL not delivering the desired results, the government now plans to merge BBNL with BSNL. The merger is expected to yield better synergies and coordination.

Need for:

- BBNL was incorporated in February 2012 as a special purpose vehicle for implementing the national optical fibre network (now renamed Bharatnet). But ostensibly due to poor coordination between multiple agencies, BBNL has failed to meet targets.
- The Union Cabinet had approved the project on October 25, 2011 and it was to be completed in three years. But even after 11 years, only around 172,000 gram panchayats have been made service-ready.

About BharatNet:

1. BharatNet Project was originally launched in 2011 as the National Optical Fibre Network(NOFN) and renamed as Bharat-Net in 2015.
2. It seeks to provide connectivity to 2.5 lakh Gram Panchayats (GPs) through optical fibre.
3. It is a flagship mission implemented by Bharat Broadband Network Ltd. (BBNL).
4. The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India.

The larger vision of the project is:

- To establish a highly scalable network infrastructure accessible on a non-discriminatory basis.
- To provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on demand capacity to all institutions.
- To realise the vision of Digital India, in partnership with States and the private sector.

Implementation:

The project is a Centre-State collaborative project, with the States contributing free Rights of Way for establishing the Optical Fibre Network.

The entire project is being funded by Universal service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country.

Sources: the Hindu.

River Ranching Programme:

Context:

Over 10,000 fish fingerlings of Indian major carps – catla, rohu and mrigal – were released in the Ganga at Sangam nose under the ranching programme organised by ICAR-Central Inland Fisheries Research Institute (CIFRI), Prayagraj, recently.

- The exercise has been undertaken for conservation and promotion of fish species that are becoming extinct in the Ganga.

River Ranching Programme:

Nationwide River Ranching Programme was launched in Uttar Pradesh in 2021.



What is River Ranching?

- River Ranching is a form of aquaculture in which a population of a fish species (such as salmon) is held in captivity for the first stage of their lives.
- They are then released, and later harvested as adults when they return from the sea to their freshwater birthplace to spawn.

About the Programme:

River ranching programme was introduced as special activity under the 'Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme to augment and enhance fish production and productivity by expanding, intensifying, diversifying and utilizing land & water productively.

Who is the implementing agency?

National Fisheries Development Board, Hyderabad is the nodal agency under central component of the PMMSY.

What is the need of the programme?

As the human population is growing, requirement of high-quality protein & demand of fish is increasing gradually. Thus, to promote sustainable use and conservation of fishery resources in an economical and environmentally responsible manner, River Ranching Programme was launched.

- This programme will help in achieving sustainable fisheries, conserving biodiversity, assessing ecosystem services, reducing habitat degradation and maximizing social-economic benefits.
- It will also ensure the upgradation of traditional fishery, trade & social protection of Inland communities and ecosystem sustainability.

₹20,000 crores for Fishermen through Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- Critical gaps in fisheries value chain
- Government will launch the PMMSY for integrated, sustainable, inclusive development of marine and inland fisheries.
- ₹11,000 Cr for activities in Marine, Inland fisheries and Aquaculture
- ₹9000 Cr for Infrastructure - Fishing Harbours, Cold chain, Markets etc.
- Cage Culture, Seaweed farming, Ornamental Fisheries as well as New Fishing Vessels, Traceability, Laboratory Network etc. will be key activities.
- Provisions of Ban Period Support to fishermen (during the period fishing is not permitted), Personal & Boat Insurance
- Will lead to Additional Fish Production of 70 lakh tonnes over 5 years.
- Employment to over 55 lakh persons; double exports to ₹1,00,000 Cr.
- Focus on Islands, Himalayan States, North-east and Aspirational Districts.

Source: Government of India

About the 'Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme:

- It is a scheme for focused and sustainable development of fisheries sector in the country.
- 20,050 crores has been sanctioned for its implementation during a period of 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories, as a part of AatmaNirbhar Bharat Package.
- The scheme focuses on beneficiary-oriented activities in Marine, Inland fisheries and Aquaculture.
- It seeks to adopt 'Cluster or Area based approaches'.

Aims and targets of the scheme:

1. Enhance fish production by an additional 70 lakh tonne by 2024-25.
2. Increase fisheries export earnings to Rs.1,00,000 crore by 2024-25.
3. Double incomes of fishers and fish farmers.

4. Reduce post-harvest losses from 20-25% to about 10%.
5. Generate additional 55 lakhs direct and indirect gainful employment opportunities in fisheries sector and allied activities.

Sources: the Hindu.

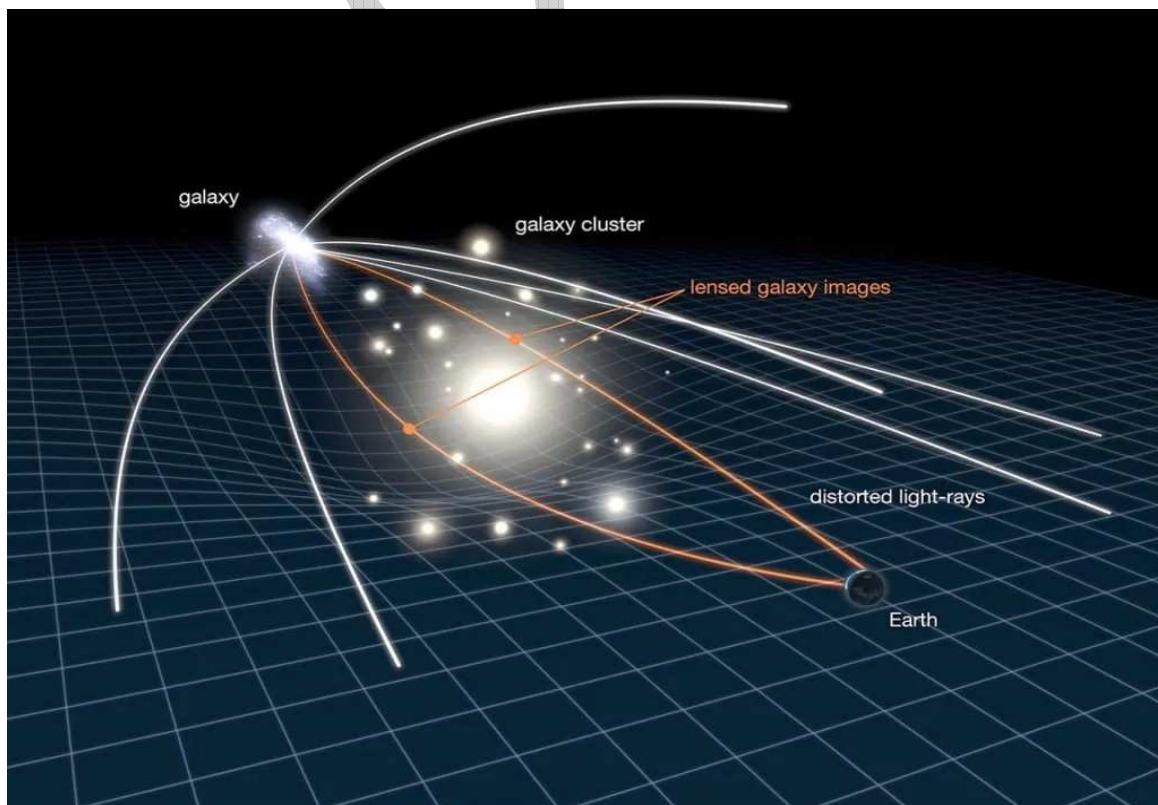
Gravitational Lensing:

Context:

This article forms a part of The Hindu's Science for All newsletter, which explains all things Science, without the jargon.

What is gravitational lensing? How does it work?

- Gravitational lensing is an effect of Einstein's theory of general relativity - simply put, mass bends light.
- The gravitational field of a massive object will extend far into space, and cause light rays passing close to that object (and thus through its gravitational field) to be bent and refocused somewhere else.
- The more massive the object, the stronger its gravitational field and hence the greater the bending of light rays - just like using denser materials to make optical lenses results in a greater amount of refraction.



Benefits:

- Gravitational lensing is useful to cosmologists because it is directly sensitive to the amount and distribution of dark matter.
- Lensing can help astronomers work out exactly how much dark matter there is in the Universe as a whole and also how it is distributed.
- Lensing has also been used to help verify the existence of dark matter itself.

Sources: the Hindu.

NASA's Lucy mission:

Context:

NASA's Lucy mission – set to explore a group of asteroids that follow behind and in front of Jupiter's orbit – hit a snag recently when one of its solar arrays failed to unfurl.

- NASA will perform two steps over the next several months to fully reveal an unfurled solar array.



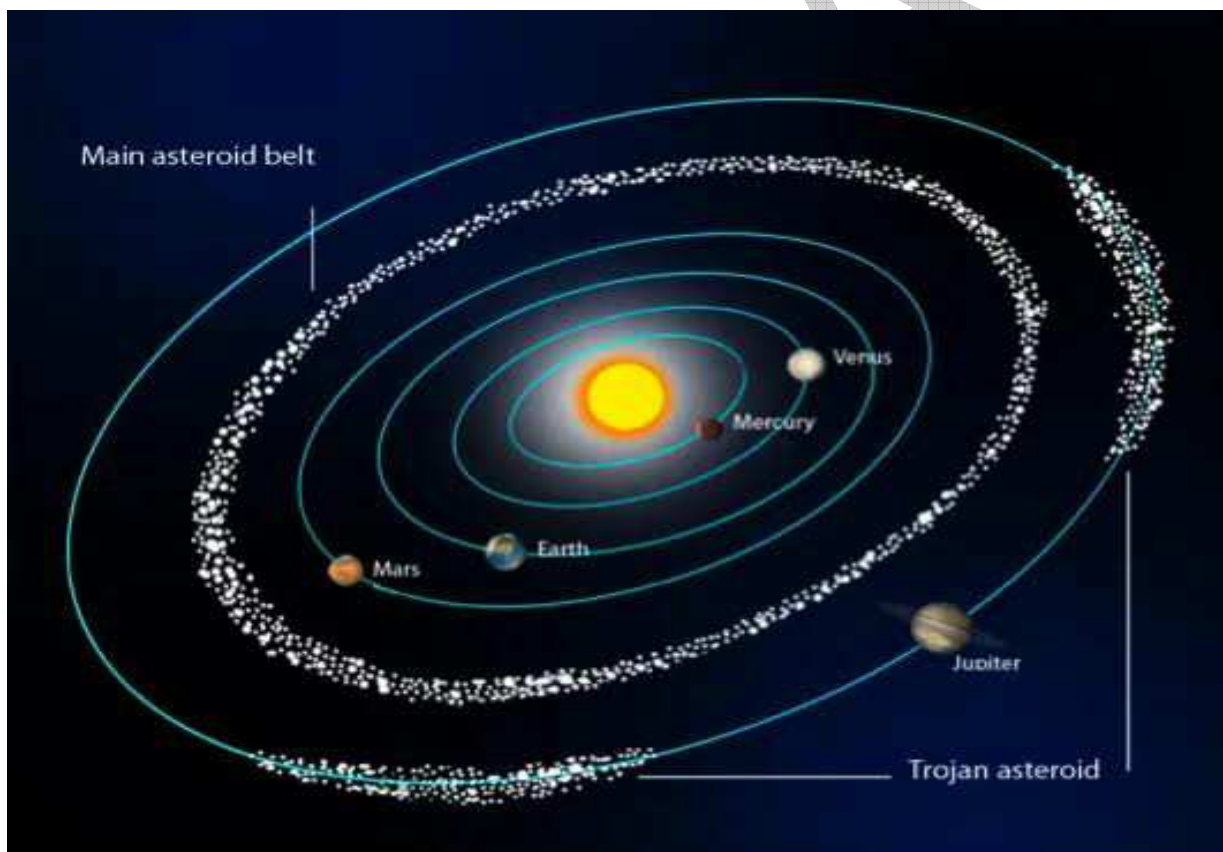
About 'Lucy' Mission:

Launched in October 2022, this is NASA's first mission to explore the Jupiter **Trojan asteroids**.

- It is a solar-powered mission.
- It is estimated to be over 12 years long, during the course of which the spacecraft will visit eight asteroids covering a distance of about 6.3 billion km to deepen the understanding of the "young solar system".

Aim of the mission:

The mission is designed to understand the composition of the diverse asteroids that are a part of the Trojan asteroid swarms, to determine the mass and densities of the materials and to look for and study the satellites and rings that may orbit the Trojan asteroids.



What are Trojan Asteroids? Why are they called so?

These asteroids are believed to be the remnants of the early solar system, and studying them will help scientists understand its origins and evolution, and why it looks the way it does.

- The Trojan asteroids are believed to be formed from the same material that led to the formation of planets nearly 4 billion years ago when the solar system was formed.

Sources: Indian Express.

US hosts weapons summit for Ukraine:

- Top US officials recently hosted emergency talks with allies in Germany on supplying Kyiv with more weapons to fend off Russia's assault.
- Moscow's invasion of its neighbour, now in its eighth week, has triggered widespread outrage among Western nations who have provided weapons and other assistance to Ukraine's embattled President Volodymyr Zelensky.

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