



Audit Report of CAG on the Functioning of the UIDAI

For Prelims: CAG, UIDAI, Aadhaar Act 2016

For Mains: Aadhaar and related issue

Why in News?

Recently, the [Comptroller and Auditor General \(CAG\)](#) of India, has pulled up the [Unique Identification Authority of India \(UIDAI\)](#) over a range of issues related to the issuance of Aadhaar cards.

- The findings are **part of the first performance review** by the country's independent auditor of UIDAI, which was carried out over a **four-year period between FY2015 and FY2019**.

Unique Identification Authority of India

- **Statutory Authority:** The UIDAI is a **statutory authority established on 12th July 2016** by the Government of India under the jurisdiction of the Ministry of Electronics and Information Technology, following the provisions of the [Aadhaar Act 2016](#).
 - The UIDAI was initially set up by the Government of India in January 2009, as an attached office under the aegis of the [Planning Commission](#).
- **Mandate:** The UIDAI is **mandated to assign a 12-digit unique identification (UID) number (Aadhaar)** to all the residents of India.
 - As of 31st October 2021, UIDAI had **issued 131.68 crore Aadhaar numbers**.

What are the Issues Highlighted by CAG?

- **No Documents for Proof of Residency:**
 - UIDAI has **not prescribed any specific proof/document or process for confirming whether an applicant has resided in India** for the specified period, and takes confirmation of the residential status through a casual self-declaration from the applicant.
 - Also, **there was no system in place to check the affirmations of the applicant**.
 - In India, **Aadhaar numbers are only issued to individuals** who have resided for a **period of 182 days or more in the 12 months** before the date of application.
- **De-duplication Problem:**
 - According to the CAG report, the **UIDAI had to cancel more than 4,75,000 Aadhaars** (as of November 2019) for "being duplicate".
 - This data indicates that on **average no less than 145 Aadhaars generated in a day** during the period of nine years since 2010 were duplicate numbers requiring cancellation.
 - The purpose of the Aadhaar system is that **it is unique - that is, no individual can obtain two Aadhaar numbers**, and that a specific person's biometrics cannot be used to obtain Aadhaar numbers for different people.
- **Faulty Enrolment Process:**

- UIDAI appeared to have **charged people for biometric updates** when poor quality data was fed in during enrolment.
- **UIDAI did not take responsibility for poor quality biometrics** and put the onus on the resident and charged fees for it.
- **Matching Aadhaar Numbers to their Actual Documents:**
 - All the **Aadhaar numbers stored in the UIDAI database were not supported with documents** on the demographic information of the resident.
 - It **“caused doubts about the correctness and completeness of resident’s data collected and stored by UIDAI prior to 2016”**.
- **Children Below the Age of Five:**
 - The audit was **also critical of UIDAI’s move to issue Aadhaar cards to children and newborns** without biometrics under an initiative known as Bal Aadhaar.
 - This needs to be reviewed **because anyway after 5 years, a child has to apply for new regular Aadhaar**. The unique identity is not matched anyway because it is issued on the basis of documents of parents.
 - Apart from being violative of the statutory provisions, the **UIDAI has also incurred avoidable expenditure of Rs 310 crore on the issue of Bal Aadhars** till 31st March 2019.
 - In Phase- II of ICT assistance a further sum of Rs 288.11 crore was released up to the year 2020-21 to states/schools primarily for the issuance of Aadhars to minor children.

What are the Recommendations?

- **Prescribe a Procedure for Self Declaration:**
 - UIDAI may **prescribe a procedure and required documentation** other than self-declaration, in order to confirm and authenticate the residence status of applicants, in line with the provisions of the Aadhaar Act.
- **Tighten the SLA parameters of Biometric Service Providers (BSPs):**
 - UIDAI may **tighten the Service Level Agreement (SLA) parameters of Biometric Service Providers (BSPs)**, devise foolproof mechanisms for capturing unique biometric data and improve upon their monitoring systems to proactively identify and take action to minimize, multiple/ duplicate Aadhaar numbers generated.
- **Explore Alternate Ways to Capture Uniqueness of Biometric Identity for Minor:**
 - UIDAI may **explore alternate ways to capture uniqueness of biometric identity** for minor children below five years since uniqueness of identity is the most distinctive feature of Aadhaar established through biometrics of the individual.
- **Proactive Steps to Identify and Fill the Missing Documents:**
 - UIDAI may **take proactive steps to identify and fill the missing documents** in their database at the earliest, in order to **avoid any legal complications or inconvenience to holders** of Aadhaar issued prior to 2016.
- **Review Charging of Fees for Voluntary Update:**
 - UIDAI may **review charging of fees for voluntary update of residents’ biometrics**, since they (UIDAI) were not in a position to identify reasons for biometric failures and residents were not at fault for capture of poor quality of biometrics.
- **Conduct thorough Verification of the Documents:**
 - UIDAI may **conduct thorough verification of the documents, infrastructure, and technological support** claimed to be available, before on-boarding the entities (Requesting Entities and Authentication Service Agencies) in the Aadhaar ecosystem.
- **Frame a Suitable Data Archival Policy:**
 - UIDAI may **frame a suitable data archival policy to mitigate the risk of vulnerability to data protection** and reduce saturation of valuable data space due to redundant and unwanted data, by continuous weeding out of unwanted data.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Consider the following statements: (2018)

1. Aadhaar card can be used as a proof of citizenship or domicile.

2. Once issued, Aadhaar number cannot be deactivated or omitted by the Issuing Authority.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (d)

- The Aadhaar platform **helps service providers authenticate identity of residents electronically**, in a safe and quick manner, making service delivery more cost effective and efficient. According to the Gol and UIDAI, **Aadhaar is not proof of citizenship**.
- However, UIDAI has also published a set of contingencies when the Aadhaar issued by it is liable for rejection. An Aadhaar with mixed or anomalous biometric information or multiple names in a **single name (like Urf or Alias) can be deactivated. Aadhaar can also get deactivated upon non-usage** of the same for three consecutive years.

Q. Consider the following statements: (2020)

1. Aadhaar metadata cannot be stored for more than three months.
2. State cannot enter into any contract with private corporations for sharing of Aadhaar data.
3. Aadhaar is mandatory for obtaining insurance products.
4. Aadhaar is mandatory for getting benefits funded out of the Consolidated Fund of India.

Which of the statements given above is/are correct?

- (a) 1 and 4 only
- (b) 2 and 4 only
- (c) 3 only
- (d) 1, 2 and 3 only

Ans: (b)

- As per a Supreme Court ruling of September, 2018, Aadhaar metadata cannot be stored for more than six months.
- The Supreme Court has struck down Section 2(d) of the **Aadhaar Act which allowed storage of such data for a period of five years, to refrain government authorities from storing metadata of transactions**.
- SC has also struck down Aadhaar Regulation 26(c) which allowed Unique Identification Authority of India (UIDAI) to store metadata relating to Aadhaar based authentications or authentication history for private firms. Accordingly, Insurance Regulatory and Development Authority of India (IRDAI) has **directed insurance companies not to mandatorily ask for the Aadhaar details for know-you-customer (KYC) requirements** or carry out authentication using e-KYC from UIDAI.
- Further, the Amendment made to Section 7 of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 has been upheld. It stipulates a condition that the **State government can mandate use of Aadhaar authentication for beneficiaries for receipt of a subsidy, benefit or service for which the expenditure is incurred from the Consolidated Fund of India**.

Q. The identity platform 'Aadhaar' provides open "Application Programming Interfaces (APIs)". What does it imply? (2018)

1. It can be integrated into any electronic device.
2. Online authentication using iris is possible.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

- API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to communicate with each other.
- Open API allows for building Aadhaar enabled applications. Such applications can **integrate the app or website with Aadhaar and use authentication services.**
- APIs support **multi-mode authentication (Iris, fingerprint, OTP and biometric).**

Source: IE

Electoral Bonds

For Prelims: Electoral bonds

For Mains: Electoral Bonds, Elections Funding, Criminalization of Politics, Issues Arising Out of Design & Implementation of Policies

Why in News?

The [Supreme Court](#) will take up for hearing a pending plea challenging the Electoral Bond Scheme, 2018.

- Two NGOs — Common Cause and Association for Democratic Reforms (ADR) — have challenged the scheme, **alleging that it is “distorting democracy”.**

What are Electoral Bonds?

- These bonds are **issued in multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any maximum limit.**
- **State Bank of India is authorised** to issue and encash these bonds, which are valid for fifteen days from the date of issuance.
- These bonds are **only redeemable in the designated account of a [registered political party.](#)**
- The bonds are **available for purchase by any citizen of India** for a period of ten days each in the months of January, April, July and October as may be specified by the Central Government.
- A person being an individual **can buy bonds, either singly or jointly** with other individuals.
- The **donor’s name is not mentioned** on the bond.
 - Donors who contribute less than Rs. 20,000 to political parties through purchase of electoral bonds need not provide their identity details such as PAN, etc.
- The central idea behind the electoral bonds scheme was **to bring about transparency in electoral funding in India.**
 - The government had described the scheme as an “electoral reform” in a country **moving towards a “cashless-digital economy”.**

Why have electoral bonds attracted criticism?

- **Contradicting its Basic Idea:**
 - The central criticism of the electoral bonds scheme is that **it does the exact opposite of what it was meant to do:** bring transparency to election funding.
 - For example, **critics argue that the anonymity of electoral bonds is only for the broader public and opposition parties.**
- **Possibility of Extortion:**
 - The fact that such bonds are sold via a government-owned bank (SBI) leaves the door open for the government to know exactly who is funding its opponents.
 - This, in turn, allows the possibility for the government of the day to either extort money, especially from the big companies, or victimise them for not funding the ruling party — either way providing an unfair advantage to the party in power.
- **A Blow to Democracy:** Through an amendment to the Finance Act 2017, the Union government has exempted political parties from disclosing donations received through electoral bonds.
 - This means the voters will not know which individual, company, or organization has funded which party, and to what extent.
 - However, in a representative democracy, citizens cast their votes for the people who will represent them in Parliament.
- **Compromising Right To Know:** The Indian Supreme Court has long held that the “right to know”, especially in the context of elections, is an integral part of the right to freedom of expression (Article 19) under the Indian Constitution.
- **Against Free & Fair Elections:** While electoral bonds provide no details to the citizens.
 - The said anonymity does not apply to the government of the day, which can always access the donor details by demanding the data from the State Bank of India (SBI).
 - This implies that the government in power can leverage this information and disrupt free and fair elections.
- **Crony Capitalism:** The electoral bonds scheme removes all pre-existing limits on political donations and effectively allows well-resourced corporations to fund elections subsequently paving the way for crony capitalism.
 - Crony Capitalism: An economic system characterized by close, mutually advantageous relationships between business leaders and government officials.

Way Forward

- There is a need for effective regulation of political financing along with bold reforms to break the vicious cycle of corruption and erosion of quality of democratic polity.
- It is crucial to plug the loopholes in the current laws to make the entire governance machinery more accountable and transparent.
- Voters can also help bring in substantial changes by demanding awareness campaigns. If voters reject candidates and parties that overspend or bribe them, democracy would move a step higher.

[Source: TH](#)

Third Positive Indigenisation List

For Prelims: Positive Indigenisation List, Defence Acquisition Procedure 2020, Initiatives in the Defence Sector.

For Mains: Government Policies & Interventions, Indigenization of Technology, Significance of Indigenisation of Defence and associated challenges.

Why in News?

Recently, the Ministry of Defence has released the **third positive indigenisation list of 101 items**, comprising major equipment/platforms.

- The '[First Negative Indigenisation](#)' List comprising 101 items was notified in **August 2020**.
- The [Second Indigenisation list](#) was notified in **June 2021** import list for 108 items.

What is the Third List and its Significance?

- It comprises **highly complex Systems, [Sensors](#), Weapons and Ammunitions like Light Weight Tanks, [Mounted Arty Gun Systems](#), Next Generation [Offshore Patrol Vessels](#) (NGOPV) etc.**
- These weapons and platforms are planned to be **indigenised progressively with effect from December 2022 to December 2027**.
- These 101 items will, henceforth, **be procured from local sources as per provisions of [Defense Acquisition Procedure \(DAP\) 2020](#)**.
 - The DAP 2020 includes the following procurement categories: Buy (Indian – Indigenously Designed Developed and Manufactured), Buy (Indian), Buy and Make (Indian), Buy (Global - Manufacture in India) and Buy (Global).

What is the Significance?

- **Promote Domestic Industry:**
 - These weapons & platforms **will promote domestic industry and transform R&D and manufacturing in the country**.
- **Reducing Fiscal Deficit and Instills Nationalism:**
 - The other benefits of indigenisation will be **reduction in the [fiscal deficit](#), security against its porous borders and hostile neighbours, generation of employment and ignition of the fire of nationalism and patriotism** with the strong sense of integrity and sovereignty amongst the Indian Forces.

What is the Indigenisation of Defence?

- **About:**
 - Indigenisation is **the capability of developing and producing any defence equipment within the country for the dual purpose** of achieving self reliance and reducing the burden of imports.
 - Self-reliance in defence manufacturing is one of the key objectives of Department of Defence Production.
 - [Defence Research Development Organisation \(DRDO\), Defence Public Sector Undertakings \(DPSUs\)](#) and private organisations are playing a critical role in indigenisation of defence industries.
 - India is **among the world's largest arms importers**, and the armed forces are expected to spend about USD 130 billion on defence purchases over the next five years.
- **Background:**
 - Overdependence on the **Soviet Union brought about a change** in India's approach to defence industrialisation.
 - From the mid-1980s, the government pumped resources into R&D (Research and Development) to enable the DRDO to undertake high profile projects.
 - A significant beginning in defence indigenisation was made in 1983, when the government sanctioned the [Integrated Guided Missile Development Programme \(IGMDP\)](#) to develop 5 missile systems ([Prithvi, Agni, Trishul, Akash, Nag](#)).
 - The indigenous efforts were **not adequate to meet the requirements of the armed forces**, this resulted in the shift of focus towards co-development and co-production in

partnership with foreign companies.

- A beginning was made in 1998, when India and Russia signed an inter-governmental agreement to jointly produce [Brahmos supersonic cruise missile](#).

▪ **Challenges:**

- **Lacking of institutional capacity:**
 - **Lack of an institutional capacity** and capability to take different policies aimed at indigenisation of defence to its logical conclusion.
- **Infrastructural deficit:**
 - It **increases India's logistics costs** thus reducing the country's cost competitiveness and efficiency.
- **Land acquisition issues:**
 - it **restricts entry of new players** in the defence manufacturing and production.
- **Policy dilemma:**
 - **Policy dilemma offset requirements under the DPP** (Defence Procurement Policy, now replaced with DAP 2020) didn't help achieve its goal. (Offsets are a portion of a contracted price with a foreign supplier that must be re-invested in the Indian defence sector, or against which the government can purchase technology).
 - Only **government-to-government agreements (G2G), single vendor contracts** or Intergovernmental Agreements (IGA) will not have offset clauses anymore.
 - According to DAP 2020, all other international deals that are competitive, and have multiple vendors vying for it, will continue to have a 30% offset clause.

What are the Related Initiatives?

▪ **Increased the FDI limit:**

- In May 2020, the [Foreign Direct Investment \(FDI\)](#) limit under the automatic route in the defence sector was hiked from 49% to 74%.

▪ [Corporatization of the Ordnance Factory Boards:](#)

- In October 2021, the government dissolved the four-decade-old [Ordnance Factory Board \(OFB\)](#) and amalgamated 41 factories under seven new state-owned companies to manufacture defence hardware ranging from munitions to heavy weapons and vehicles.

▪ [Defence India Startup Challenge:](#)

- DISC aims at supporting Startups/[Micro, Small and Medium Enterprises \(MSMEs\)](#) /Innovators to create prototypes and/or commercialise products/solutions in the area of National Defence and Security.
- It has been launched by the Ministry of Defence in partnership with [Atal Innovation Mission](#).

▪ **SRIJAN Portal:**

- It is a one stop shop **online portal that provides access to the vendors** to take up items for indigenization.

▪ **E-Biz Portal:**

- Process of applying for Industrial License (IL) and Industrial Entrepreneur Memorandum (IEM) has been made completely online on ebiz portal.

Way Forward

- A Permanent **Arbitration Cell can be set up** to deal with all objections and disputes.
- Private Sector boost is necessary as **it can infuse efficient and effective technology and human capital** required for modernisation of indigenious defence industry.
- Software Industry and technologies like **Artificial intelligence and cyber security should be used** to develop and manufacture the “chip” indigenously.
- Providing **Financial and Administrative autonomy to DRDO** in order to enhance its confidence and authority.
- The staff at the Department of Defence Production **need to be trained and given longer tenures** to ensure continuity.
- **In-house design capability should be improved** amongst the three services, the Navy has progressed well on the path of indigenisation primarily because of the in-house design capability,

the Naval Design Bureau.

- **Robust supply chain is critical** for a defence manufacturer looking to optimise costs.

[Source: PIB](#)

Draft Guidelines For Medical Registration

For Prelims: Draft Guidelines For Medical Registration, Draft National Policy for the Medical Devices, 2022, National Medical Commission (NMC, National Exit Test (NExT)

For Mains: Government Policies & Interventions, Education, Health, Management of Social Sector/Services, Draft Guidelines For Medical Registration, Draft National Policy for the Medical Devices, 2022

Why in News?

Recently, the [National Medical Commission \(NMC\)](#) has released draft guidelines on how the doctors will be registered in order to practise medicine.

- It aims to bring **uniformity in the registration process** of medical practitioners in India.
- Earlier, the **Department of Pharmaceuticals (DoP)**, Ministry of Chemicals and Fertilisers has released an Approach Paper for the [Draft National Policy for the Medical Devices, 2022](#).

What are the draft guidelines for medical registration proposed by the NMC?

- **Unique ID:** The guidelines provide a framework for creating a dynamic national medical register, with a unique ID assigned to each student who **qualifies NEET and other professional qualifications**.
- **Allowing Foreign Doctors:** It also throws open the registration to foreign doctors who want to come to India to study in **post-graduation courses, fellowships, clinical research, or voluntary clinical services**.
- **National Exit Test (NExT):** The draft states that Indian medical graduates would be eligible for registration in the **National Medical Register** after they complete their MBBS degree from a recognised college, complete their year-long mandatory internship, and pass the **National Exit Test (NExT)**.
 - NExT will not **only level the playing field for both**, it will also act as the qualifying test for post-graduate programmes instead of the NEET-PG the aspirants have to appear for currently.
 - Till the NExT is introduced, the current processes will continue, the draft guidelines state.
 - The government expects to conduct the **NExT from 2024**.
 - **National Medical Register contains the list of** Registered Doctors with the various State Medical Councils across India.

What is the National Medical Commission?

- **Medical Council of India (MCI)** was established in 1934 under the **Indian Medical Council (IMC) Act, 1933** with the main function of establishing uniform standards of higher qualifications in medicine and recognition of medical qualifications in India and abroad.
- The government dissolved the MCI in 2018 and replaced it with a **Board of Governors (BoG)**,

which was chaired by a member of [NITI Aayog](#).

- Now, the IMC Act, 1956 stands repealed after the gazette notification, and has been replaced by the [National Medical Commission Act](#) that came into existence on 8th August 2019.
- The change is aimed at bringing in reforms in the medical education sector and especially aimed at replacing the MCI, which was tainted by corruption and [other problems](#).
- The NMC will function as the country's top regulator of medical education.
- It will have four separate autonomous boards for:
 - Undergraduate medical education.
 - Postgraduate medical education.
 - Medical assessment and rating.
 - Ethics and medical registration.

[Source: IE](#)

Manual Scavenging

For Prelims: Initiatives to tackle Menace of Manual Scavenging, Swachh Bharat Mission

For Mains: Menace of Manual Scavenging, Issues related to SC, STs

Why in News?

Recently, the Ministry of Social Justice and Empowerment informed that **a total of 971 people lost their lives** while cleaning sewers or septic tanks since 1993.

- Earlier, the Union Cabinet **approved the extension of the tenure of the** [National Commission for Safai Karamcharis \(NCSK\)](#) for three years beyond 31st March, 2022. The major beneficiaries would be the Safai Karamcharis and identified manual scavengers in the country.

What is Manual Scavenging?

- Manual scavenging is defined as **“the removal of human excrement from public streets and dry latrines, cleaning septic tanks, gutters and sewers”**.

What are the Reasons for the Prevalence of Manual Scavenging?

- **Indifferent Attitude:** A number of independent surveys have talked about the **continued reluctance on the part of state governments** to admit that the practice prevails under their watch.
- **Issues due to Outsourcing:** Many times local bodies outsource sewer cleaning tasks to private contractors. However, many of them fly-by-night operators, do not maintain proper rolls of sanitation workers.
 - In case after case of workers being asphyxiated to death, these contractors have denied any association with the deceased.
- **Social Issue:** The practice is driven by **caste, class and income divides**.
 - It is linked to **India's caste system** where so-called lower castes are expected to perform this job.
 - In 1993, India banned the employment of people as manual scavengers (**The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993**), however, the stigma and discrimination associated with it still linger on.

- This **makes it difficult for liberated manual scavengers** to secure alternative livelihoods.

What are the Steps taken to tackle the Menace of Manual Scavenging?

- **The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020:**
 - It **proposes to completely mechanise sewer cleaning**, introduce ways for 'on-site' protection and provide compensation to manual scavengers in case of sewer deaths.
 - It will be an amendment to **The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013**.
 - It is still awaiting cabinet approval.
- **The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013:**
 - Superseding the 1993 Act, the 2013 Act **goes beyond prohibitions on dry latrines**, and outlaws all manual excrement cleaning of insanitary latrines, open drains, or pits.
- **The Building and Maintenance of Insanitary Latrines Act of 2013:**
 - It outlaws construction or maintenance of insanitary toilets, and the hiring of anybody for their manual scavenging, as well as of hazardous cleaning of sewers and septic tanks.
 - It also provides a constitutional responsibility to provide alternative jobs and other assistance to manual scavenging communities, as reparation for historical injustice and indignity.
- **Prevention of Atrocities Act:**
 - In 1989, the **Prevention of Atrocities Act** became an integrated guard for sanitation workers, more than 90% people employed as manual scavengers belonged to the Scheduled Caste. This became an important landmark to free manual scavengers from designated traditional occupations.
- **Safaimitra Suraksha Challenge:**
 - It was launched by the Ministry of Housing and Urban Affairs on **World Toilet Day** (19th November) in 2020.
 - The Government launched this **"challenge" for all states to make sewer-cleaning mechanised** by April 2021 — if any human needs to enter a sewer line in case of unavoidable emergency, proper gear and oxygen tanks, etc., are to be provided.
- **'Swachhta Abhiyan App':**
 - It has been **developed to identify and geotag the data of insanitary latrines and manual scavengers** so that the insanitary latrines can be replaced with sanitary latrines and rehabilitate all the manual scavengers to provide dignity of life to them.
- **SC Judgment:** In 2014, a **Supreme Court order made it mandatory for the government to identify all those who died in sewage work** since 1993 and provide Rs. 10 lakh each as compensation to their families.

Way Forward

- **Empowering Local Administration:** With **Swachh Bharat Mission** identified as a top priority area by the **15th Finance Commission** and funds available for smart cities and urban development providing for a strong case to address the problem of manual scavenging.
- **Social Sensitisation:** To address the social sanction behind manual scavenging, **it is required first to acknowledge** and then understand how and why manual scavenging continues to be embedded in the caste system.
- **State and Society needs to take Interest:** The **state and society needs to take active interest in the issue** and look into all possible options to accurately assess and subsequently eradicate this practice.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. 'Rashtriya Garima Abhiyaan' is a national campaign to (2016)

- (a) rehabilitate the homeless and destitute persons and provide them with suitable sources of livelihood
- (b) release the sex workers from their practice and provide them with alternative sources of livelihood
- (c) eradicate the practice of manual scavenging and rehabilitate the manual scavengers
- (d) release the bonded labourers from their bondage and rehabilitate them

Ans: (c)

- Rashtriya Garima Abhiyaan is a national campaign for dignity and eradication of manual scavenging launched by Jan Sahas in 2001.. Therefore, option (c) is the correct answer.

[Source: TH](#)

Earth Observation Satellite: EOS-02

Why in News?

The Union Minister of Science & Technology said that **EOS (Earth Observation Satellite)-02** satellite will be launched in the second quarter of 2022.

- The launch was delayed due to [pandemic](#) and consequent [lockdown](#).
- Earlier, the [Indian Space Research Organisation's](#) earth observation satellite [EOS-04 and two small satellites \(INSPIRESat-1 and INS-2TD\)](#) were successfully placed into the intended orbit by the [PSLV \(Polar Satellite Launch Vehicle\)-C52](#) rocket.

What is the EOS-02 Satellite?

- EOS-02 is **Technology demonstration satellite for various new technologies** with applications that include **agriculture, forestry, geology, hydrology, miniaturised power electronics, reaction wheels** etc. and forming the payload for [SSLV \(Small Satellite Launch Vehicle\)-1](#).
 - **SSLV** is the smallest vehicle weighing only 110-tonne. **It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle.**
 - It aims to **cater to the market for the launch of small satellites into Earth's low orbits** that has emerged in recent years to cater to the needs of developing countries, universities for small satellites, and private corporations.

What are the Other Satellites in the EOS Series?

- **EOS-01:**
 - Earth Observation satellite meant for Agriculture, Forestry & [disaster management](#) support
- **EOS-03:**
 - First Agile Earth Observation satellite in [Geostationary orbit](#) and applications which include near real time imaging, quick monitoring of natural disasters, spectral signatures for agriculture, forestry etc.
- **EOS-04:**

- **Radar** Imaging satellite meant to provide high quality images under all weather conditions for applications such as Agriculture, Forestry & Plantations, Soil Moisture & Hydrology and **Flood** Mapping.
- **EOS-05:**
 - Earth Observation Satellite in the Geostationary Orbit.
- **EOS-06:**
 - Earth Observation satellite meant for applications, which include ocean related services and advisories towards potential fishing zone forecast , ocean state forecast.

What are Earth Observation Satellites?

- Earth observation satellites are **the satellites equipped with remote sensing technology.** Earth observation is the gathering of information about Earth's physical, chemical and biological systems.
- Many earth observation satellites have been employed **on [sun-synchronous orbit](#).**
- Other earth observation satellites launched by ISRO include RESOURCESAT- 2, 2A, CARTOSAT-1, 2, 2A, 2B, RISAT-1 and 2, OCEANSAT-2, Megha-Tropiques, SARAL and SCATSAT-1, INSAT-3DR, 3D, etc.

//

First launch of 2022

On Monday, Earth Observation Satellite **EOS-04** and two small satellites – **INSPIRESat-1** and **INS-2TD** – were placed in the orbit by the **PSLV-C52** rocket. A detailed look at the payload

DETAILS OF THE LAUNCH

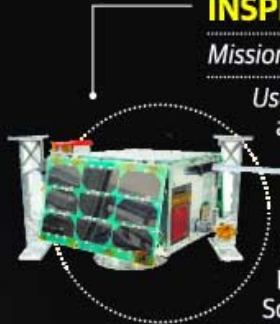
- 1 Monday's was the 54th flight of PSLV and 23rd mission using PSLV-XL configuration with six PSOM-XLs (strap-on motors)
- 2 After a flight of about 18 minutes, the vehicle injected the satellites into their intended orbit
- 3 Primary satellite EOS-04 was put into the intended sun synchronous polar orbit of 529 km altitude at 6.17 a.m.



EOS-04 Weight: 1,710 kg

Mission life: 10 years

Use: Radar Imaging Satellite is designed to provide high quality images under all weather conditions for applications such as agriculture, forestry and plantations, soil moisture and hydrology and flood mapping



INSPIRESat-1 Weight: 8.1 kg

Mission life: 1 year

Use: Two payloads in the satellite are aimed at improving the understanding of ionosphere dynamics and the sun's coronal heating processes

- The satellite is built by Indian Institute of Space Science and Technology in association with Laboratory of Atmospheric and Space Physics at University of Colorado Boulder, NTU, Singapore and NCU, Taiwan



INS-2TD Weight: 17.5 kg

Mission life: 6 months

Use: Having a thermal imaging camera as its payload, the satellite benefits the assessment of land surface temperature, water surface temperature of wetland or lakes, delineation of vegetation (crops and forest) and thermal inertia (day and night)

- This is a technology demonstrator satellite from ISRO, a precursor to the India-Bhutan Joint Satellite (INS-2B)



UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. With reference to the Indian Regional Navigation Satellite System (IRNSS), consider the following statements: (2018)

1. IRNSS has three satellites in geostationary and four satellites in geosynchronous orbits.
2. IRNSS covers entire India and about 5500 sq. km beyond its borders.
3. India will have its own satellite navigation system with full global coverage by the middle of 2019.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) None

Ans: (a)

- [Indian Regional Navigation Spacecraft System \(IRNSS\)](#) is an independent regional navigation satellite system being developed by India.

[Source: PIB](#)

Jupiter Like Protoplanet

Why in News?

Recently, the [Hubble Space Telescope](#) has photographed a [Jupiter](#)-like **protoplanet** forming through a process that researchers have described as **intense and violent**.

- The Hubble Space Telescope is a project of international cooperation between [National Aeronautics and Space Administration \(NASA\)](#) and ESA (European Space Agency).

What is the Newly Forming Planet?

- The **newly forming planet** captured by Hubble is called **AB Aurigae b** and embedded in a protoplanetary disk with distinct spiral structures swirling around and surrounding a young star that is estimated to be about 2 million years old.
 - That is also about the **same age our solar system** was when planet formation was underway.
 - It is **531 light-years away from our sun**.
- This protoplanet is probably around **nine times the size of Jupiter** and orbits its **host star at a distance of 8.6 billion miles**, over two times the distance between our Sun and [pluto](#).

What is a Protoplanet?

- Protoplanets are small celestial objects that are the size of a moon or a bit bigger. They are small planets, like an even smaller version of a [dwarf planet](#).
 - Astronomers believe that these objects form during the creation of a solar system.
- The most popular theory of how a solar system is formed says that a **giant cloud of molecular dust collapsed, forming one or more stars**.
- Then a cloud of gas forms around the new star. As a result of gravity and other forces, **the dust and other particles in this cloud collide and stick together** forming larger masses.
- While **some of these objects break apart on impact, a number of them continue to grow**.
- Once they reach a certain size - around a kilometre - these objects are large enough to attract particles and other small objects with their gravity. **They continue to get larger until they form protoplanets**.

What is NASA's Disk Instability Theory?

- According to NASA, this discovery supports a long-debated theory called **“disk instability,”** which tries to explain how planets similar to Jupiter are formed.
 - The model is for giant planet formation where a protoplanetary disk becomes dense and cool enough to be unstable to gravitational collapse and thereby resulting in the formation of a gaseous protoplanet.
- According to the Disk Instability theory, **matter slowly moves inwards in this disc as dust particles grow to centimetre-sized pebbles.**
- This is seen as the first step towards the formation of **kilometre-sized planetesimals** that eventually come together to form planets.
 - **Planetesimals** are solid objects thought to exist in protoplanetary disks and debris disks.

[Source: IE](#)

Tour of Duty Scheme

Why in News?

The **Department of Military Affairs** is moving towards finalising the **“Tour of Duty (ToD)”** scheme.

- Under this scheme, **youngsters will be recruited as soldiers only for three years.**
- This is being done in the backdrop of the urgent need **to curb the ballooning salary and pension bills** that are adversely impacting military modernization.

What is the “Tour of Duty (ToD)” scheme?

- **Background:** The scheme was being **pushed by the late [Chief Of Defence Staff General Bipin Rawat.](#)**
- **About:** It involves recruiting soldiers, which will be called **Agniveers**, for a fixed period of three years.
 - It will be a **voluntary engagement.**
 - It is also known as the **Agnipath entry scheme.**
 - It is for youths who **“do not want to make defence services their permanent vocation, but still want to experience the thrill and adventure of military professionalism”.**
- **Benefits to Soldiers:** The soldiers would be given a **payout** along with **priority in recruitment to certain government jobs**, including the **[central armed police forces.](#)**
 - An effort is also on to **nudge corporate India** into hiring such **ex-ToD recruits for specific lines of work** in the private sector on a priority basis.
- **Benefits to Government:** Tour of Duty', will help not only resolve the **issue of shortages of personnel but also reduce the burden of pay rises and pensions.**
 - As per the original ToD proposal, the “prospective life-term saving” in the cost of engagement of a single jawan who leaves after **17 years of service with pension and other benefits**, as compared to a **ToD jawan will be Rs 11.5 crore.**
 - The cumulative money saved in **pay and gratuity payouts can consequently be used for the much-needed military modernization.**

Nanar Refinery: Maharashtra

Why in News?

Recently, the Ministry of Petroleum & Natural Gas has indicated that the **Nanar oil refinery project in Konkan region may be revived** as the Maharashtra government was reconsidering its decision about stalling the project.



What is the Nanar oil Refinery Project?

- The project was mooted by the Centre and the Maharashtra government **in 2014 and it was aimed at bringing development to the backward Konkan region.**
 - The project was **scrapped ahead of the 2019 Assembly and Lok Sabha elections.**
- It was supposed to be a **joint venture between Indian Oil, Bharat Petroleum and Hindustan Petroleum**, and Saudi Arabia-owned Aramco and United Arab Emirates' National Oil Company.
- It was estimated that the project would bring in investment to the tune of Rs 3 lakh crore and **generate employment for at least one lakh local residents.**
- It would also **create new job generating avenues by setting up ancillary units.**

Why was the Project Stopped?

- To start the project, the government required 14,000 hectares of land spread across 17 villages in the region.
- **Local leaders vehemently opposed the project**, saying the oil refinery would be detrimental for the environment of Konkan region.

- In 2019, 14 gram [panchayats](#) adopted a resolution **demanding scrapping of the project and local residents took to the streets to protest**, saying the project would be **hazardous to fishing and cultivation of paddy, mangoes and jackfruit**, which are traditionally grown by local residents.

[Source: IE](#)

PDF Refernece URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/08-04-2022/print>