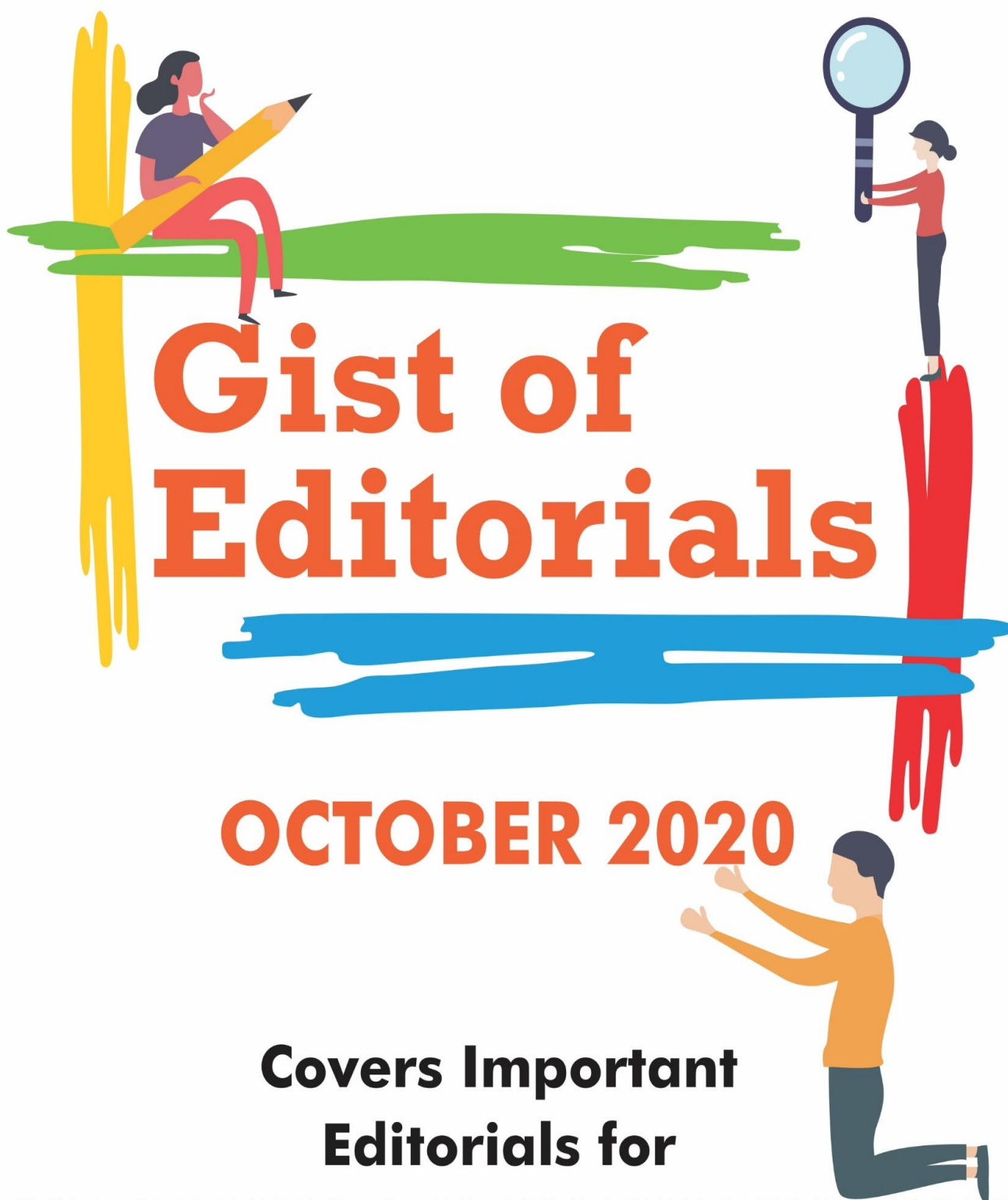




# CHROME IAS

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# Gist of Editorials

## OCTOBER 2020

**Covers Important  
Editorials for  
CSE PRELIMS & MAIN EXAMINATION**

# CHROME IAS ACADEMY

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## WHAT IS SMART TEST?

### GENERAL STUDIES - III (ACHIEVEMENTS OF INDIANS IN SCIENCE & TECHNOLOGY)

Recently, India successfully conducted the flight test of a **Supersonic Missile Assisted Release of Torpedo (SMART)** system developed by the Defence Research and Development Organisation (DRDO).

#### What is SMART system?

**Torpedoes are self-propelled weapons that travel underwater to hit a target.** They are limited by their range.

- SMART is a **missile assisted release of lightweight Anti-Submarine Torpedo System for Anti-Submarine Warfare (ASW)** operations far beyond Torpedo range.
- This **Supersonic Missile Assisted Release of Torpedo (SMART)** system comprises a mechanism by which **the torpedo is launched from a supersonic missile system** with modifications that would take the torpedo to a far longer range than its own.
- The system also gives flexibility in terms of the missile system's launch platform.
- A number of **DRDO laboratories** including DRDL, RCI Hyderabad, ADRDE Agra, NSTL Visakhapatnam have developed the technologies required for SMART.

#### Why is it significant?

SMART is a **game-changing technology demonstration in anti-submarine warfare.**

- India's **anti-submarine warfare capacity building is crucial in light of China's growing influence** in the Indian Ocean region.
- The Navy's anti-submarine warfare capability got a boost in June after the conclusion of a contract for **Advanced Torpedo Decoy System Maareech**, capable of being fired from all frontline warships.
- India has been indigenously developing and building several anti-submarine systems and vessels in the recent past.

GIST OF EDITORIALS 8<sup>th</sup> OCTOBER 2020

## HOW DOES THE REMOVAL OF OFFSET CLAUSE REQUIREMENT AFFECT RAFALE-LIKE DEALS?

### GENERAL STUDIES - II (GOVERNMENT POLICIES)

The Defence Ministry, recently, has **removed the offset clause requirement in inter-governmental agreements (IGA)** and has introduced a new category for leasing of military equipment in the new **Defence Acquisition Procedure (DAP 2020)**.

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## What purpose does an offset clause serve?

A defence offset policy was promulgated under the Defence Procurement Procedure (DPP-2005), with the objective that it **would bring high-end technology to the country and help build the domestic defence industry.**

- **Under the offset clause**, a foreign company that wins a defence deal is **supposed to invest a part of the contract value in the country**, thus developing skills and bringing in technology, while also generating employment.
- **Under the DPP 2006**, the **offset value was fixed at 30% of defence deals above ₹300 crore**, which was revised to **₹2,000 crore in DPP 2016 for full-import deals.**

## Rafale deal offsets

The IGA of the ₹60,000-crore deal for 36 Rafale fighter jets stated that the **French side would facilitate implementation of 'Make in India' through offsets for 50% value of supply protocols**, minus the value of performance-based logistics and simulator and training aids annual maintenance.

- The CAG said the French aircraft manufacturer, Dassault Aviation, and missile maker MBDA have till **date "not confirmed" the transfer of technology to the Defence Research and Development Organisation (DRDO) under the offset clause.**
- Giving the Rafale deal as a reference, the report said, "In many cases, it was found that the foreign vendors made various offset commitments to qualify for the main supply contract, but later were not earnest about fulfilling these commitments."

## What is the status now?

- **In the new DAP 2020**, which came into effect on October 1, the government has removed the requirement for offset clause in IGAs or in Rafale-like deals.
- From now on, there will be no offset clause in government-to-government, single vendor and IGAs.

## GIST OF EDITORIALS 9<sup>th</sup> OCTOBER 2020

# THE ANATOMY OF THE CANNABIS PLANT

## GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

At the centre of the storm around the **Narcotics Control Bureau's investigation into the alleged drug trafficking in connection** with actor Rhea Chakraborty is a **plant** that goes by many names: cannabis, hemp, marijuana or pot.

## What is the cannabis plant?

According to the World Health Organisation (WHO), **cannabis is a generic term used to denote the several psychoactive preparations of the plant Cannabis sativa.**

- **Seeds and leaves of the plant** — used to make bhang, for example — **are outside the ambit of the NDPS Act.**

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- The **major psychoactive constituent in cannabis is Delta-9 tetrahydrocannabinol (THC)**. The **Mexican name 'marijuana'** is frequently used in referring to cannabis leaves or other crude plant material in many countries.

## Species of cannabis

- Most species of cannabis are dioecious plants that can be **identified as either male or female**.
- The **unpollinated female plants are called hashish**.
- Cannabis oil (**hashish oil**) is a concentrate of cannabinoids — compounds which are structurally similar to THC — obtained by solvent extraction of the crude plant material or of the resin.
- The WHO says that **cannabis is by far the most widely cultivated, trafficked and abused illicit drug in the world**.

## How does the NDPS Act define cannabis?

According to the **NDPS Act "cannabis plant"** means any plant of the genus cannabis. The legislation that was enacted in 1985 succeeded the **Dangerous Drugs Act, 1930**.

- **'Charas'** is the separated resin extracted from the cannabis plant.
- **The NDPS Act covers separated resin**, in whatever form, whether crude or purified, obtained from the cannabis plant and also includes concentrated preparation and **resin known as hashish oil or liquid hashish**.
- **Section 2(iii)(b) of the NDPS Act defines 'ganja'** as the flowering or fruiting tops of the cannabis plant but it clearly excludes the seeds and leaves, when not accompanied by the tops, by whatever name they may be known or designated.

## Why is the use of CBD oil still contentious in India?

The NDPS Act does not permit the recreational use of cannabis in India.

- **While CBD oil manufactured with a licence under the Drugs and Cosmetics Act, 1940 can be legally used**, it is not very common.
- Some Indian websites do sell CBD oil with a prescription and many even facilitate it.

## GIST OF EDITORIALS 12<sup>th</sup> OCTOBER 2020

# WHY ANTI-RADIATION MISSILE RUDRAM MATTERS?

## GENERAL STUDIES - III (INDIGENIZATION OF TECHNOLOGY)

**India's first indigenous anti-radiation missile, Rudram**, developed for the Indian Air Force, was successfully flight-tested from a Sukhoi-30 MKI jet off the east coast on Friday.

## What is an anti-radiation missile?

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Anti-radiation missiles are **designed to detect, track and neutralise the adversary's radar, communication assets and other radio frequency sources**, which are generally part of their air defence systems.

- Such a **missile's navigation mechanism** comprises an inertial navigation system, **coupled with GPS**, which is satellite-based.
- **For guidance**, it has a **"passive homing head"** — a system that can detect, classify and engage targets (radio frequency sources in this case) over a wide band of frequencies as programmed.
- Once the Rudram missile locks on the target, it is capable of striking accurately even if the radiation source switches off in between.
- The missile has an **operational range of more than 100 km**, based on the launch parameters from the fighter jet.

## How was Rudram developed?

- Rudram is an **air-to-surface missile**, designed and developed by the Defence Research and Development Organisation (**DRDO**).
- The **Sanskrit name Rudram** was given in keeping with tradition, because it includes the letters ARM (the acronym for anti-radiation missile) and the word in Sanskrit describes a **"remover of sorrows"** (one of its meanings).

## How significant are such missiles in aerial warfare?

- Rudram has been **developed for the IAF's requirement to enhance its Suppression of Enemy Air Defence (SEAD)** capability.
- Scientists said modern-day warfare is more and more network-centric, which means it comprises elaborate detection, surveillance and communication systems that are integrated with the weapons systems.

## What next for Rudram?

- Rudram hit the radiation target with pinpoint accuracy, DRDO said. After the test, Defence Minister Rajnath Singh tweeted to say the test is **"a remarkable achievement"**.
- Officials said some more flights would take place before the system is ready for induction.

## GIST OF EDITORIALS 13<sup>th</sup> OCTOBER 2020

# WHY NOBEL PEACE PRIZE TO WORLD FOOD PROGRAMME MATTERS?

## GENERAL STUDIES - II (INTERNATIONAL INSTITUTIONS, AGENCIES)

The recent announcement of the **2020 Nobel Peace Prize to the World Food Programme (WFP)**, is a step forward in recognising the seriousness of the global food crisis.

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## Why Nobel Peace Prize WFP matters?

- It draws attention to the sustained efforts to fight hunger and famine from the grassroots to the highest levels of global governance.
- While recognising those who struggle to ban nuclear weapons, restrict arms production and arms trade, and prevent conflict through diplomacy may seem directly relevant for the peace prize, but **putting focus on the consequences of war is also an important part of working towards peace and the well-being of people.**
- The Nobel committee has further stressed the **link between armed conflict and hunger.**
- **Almost 80 per cent of all chronic malnourished children inhabit countries affected by armed conflict.**
- The ongoing coronavirus pandemic has exacerbated the problem of food insecurity and famines.
- It is anticipated that **the number of hungry people could increase to 270 million under the impact of the pandemic**, with the most acute suffering and starvation experienced in conflict zones.
- Wars constrain people's mobility, create black markets and restrict people's access to food, making it either unavailable or too expensive.
- War-related displacement causes people to be removed from their cultivable land so that they cannot grow food, and it diverts resources from people's welfare towards the war effort.

## World Food Programme (WFP)

The World Food Programme is **the food-assistance branch of the United Nations** and the world's largest humanitarian organization focused on hunger and food security.

- Founded in 1961, it is **headquartered in Rome and has offices in 80 countries.**
- According to official data, **WFP provides food assistance to an average of 91.4 million people in 83 countries each year.**
- As of 2019, its reach increased to 97 million people in 88 countries, the largest since 2012, and two-thirds of its activities are conducted in conflict zones.

## GIST OF EDITORIALS 14<sup>th</sup> OCTOBER 2020

# THE ECONOMICS OF AUCTIONS

## GENERAL STUDIES - III (INDIAN ECONOMY)

On 12 October, the Royal Swedish Academy of Sciences awarded this **year's Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel** — popularly, albeit incorrectly, referred to as the Nobel Prize for Economics — to **Paul R Milgrom and Robert B Wilson.**

Both winners are currently with **Stanford University**, where they teach in different departments.

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## What is auction theory?

Auction theory studies how auctions are designed, what rules govern them, how bidders behave and what outcomes are achieved.

- The simple design of such an auction — the highest open bidder getting the property (or the commodity in question) — is intuitively appealing as well.
- Over time, and especially over the last three decades, more and more goods and services have been brought under auction.
- **The purpose of an auction also differs with the commodity and the entity conducting the auction.**

## What are the key variables that determine the outcome of an auction?

Three key variables need to be understood while designing an auction.

- **One is the rules of the auction.** Imagine participating in an auction. Your bidding behaviour is likely to differ if the rules stipulate open bids as against closed/sealed bids.
- **The second variable** is the commodity or service being put up for auction.
- **The third variable is uncertainty.** For instance, which bidder has what information about the object, or even the value another bidder associates with the object.

## Nobel prize for economics

Paul Milgrom and Robert Wilson, economics of auction have done pioneering work on auction theory and much of our current understanding is due to their research.

- **Robert Wilson developed the theory for auctions of objects with a common value — a value which is uncertain beforehand but, in the end, is the same for everyone.**
- Wilson showed what the “winner’s curse” is in an auction and how it affects bidding.
- **The winner’s curse explains** “why rational bidders tend to place bids below their own best estimate of the common value: they are worried about the winner’s curse — that is, about paying too much and losing out”.
- **Paul Milgrom** “formulated a more general theory of auctions that not only allows common values but also private values that vary from bidder to bidder”.

## GIST OF EDITORIALS 15<sup>th</sup> OCTOBER 2020

### WHAT IS NEW SHEPHARD, THE ROCKET SYSTEM BUILT BY BLUE ORIGIN?

#### GENERAL STUDIES- II (SCIENCE AND TECHNOLOGY)

Recently, a **rocket system meant to take tourists** to space successfully completed its seventh test launch after it took off from a test facility in Texas.

**Called New Shepard, the system is built by Amazon founder Jeff Bezos’s space company** called Blue Origin and will eventually allow space tourists to experience microgravity by taking them over 100 km above the Earth.



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- In 2018, **Blue Origin** was one of the ten companies selected by NASA to conduct studies and advance technologies to collect, process and use space-based resources for missions to the Moon and Mars.
- In 2019, both signed an agreement that gives Blue Origin permission to use NASA's historic test stand, as a part of a growing number of partnerships between the space agency and the commercial space industry.

## So, what is New Shephard?

New Shephard has been named after astronaut Alan Shephard, **the first American to go to space, and offers flights** to space over 100 km above the Earth and accommodation for payloads.

- Essentially, it is a rocket system that has been designed to take astronauts and research payloads past the Karman line – the internationally recognised boundary of space.
- The idea is to provide easier and more cost-effective access to space meant for purposes such as academic research, corporate technology development and entrepreneurial ventures among others.

## How does it work?

The rocket system consists of two parts, **the cabin or capsule and the rocket or the booster**. The cabin can accommodate experiments from small mini payloads up to 100 kg.

- As per Blue Origin, the mini payloads provide easier space access to students, who are part of educational institutions that are developing their own space programs, **“for less than the price of new football uniforms”**.
- Further, the cabin is designed for six people and sits atop a 60-feet tall rocket and separates from it before crossing the Karman line, after which both vehicles fall back to the Earth.
- The system is a fully reusable, **vertical take-off and vertical landing space vehicle that accelerates for about 2.5 minutes** before the engine cuts off.
- After separating from the booster, the capsule free falls in space, while the booster performs an autonomously controlled vertical landing back to Earth.
- The capsule, on the other hand, lands back with the help of parachutes.

## What was the test launch about?

During the seventh launch on Tuesday referred to as NS-13, **there were 12 payloads onboard including the Deorbit, Descent and the Landing Sensor Demonstration** under the NASA Tipping Point partnership.

- The lunar landing sensor demo, for instance, was the first payload to be mounted onto the exterior of the space vehicle and was meant to test the technology that helps to achieve high accuracy landings such as those done on the lunar surface.
- There were **no passengers on board this test launch**.

### WHAT ARE CHAPTER PROCEEDINGS?

#### GENERAL STUDIES- II (GOVERNMENT POLICIES AND INTERVENTIONS)

The Mumbai police last week began “chapter proceedings” against Republic Editor-in-Chief **Arnab Goswami**, who has been summoned Friday evening.

**What exactly are “chapter proceedings”?**

**Chapter proceedings are preventive actions taken by the police if they fear that a particular person is likely to create trouble and disrupt the peace in society.**

These proceedings are unlike punitive action taken in case of an FIR with an intention to punish.

Here, the police can issue notices under sections of the Code of Criminal Procedure to ensure that the person is aware that creating nuisance could result in action against him, which includes paying a fine, in the absence of which, he could be put behind bars.

**The sections under which these notices are served?**

Generally a notice is issued to a person under section 111 of the CrPC whereby he is asked to present himself before the Executive Magistrate – an ACP-rank officer in a commissionerate or a deputy collector in rural areas – who has issued the notice.

- The person has to explain why he should not be made to sign a bond of good behaviour.
- If the Executive Magistrate is not satisfied with the answer, the person is asked to sign a bond of good behaviour and produce sureties vouching for his/her good behaviour.
- A fine amount is also decided – in accordance with the crime and the person’s financial capability – which the person would have to pay if he violates the conditions set in the bond.

**Legal options to appeal against the notice**

On receiving the notice under section 111, a person can appeal the notice before the courts. In fact, in the past, courts have come down strongly against chapter proceedings in some cases.

**Why such notices are called chapter proceedings?**

It is not a legal term.

According to officers, since all the sections related to preventing of crime fall under a single chapter, it was colloquially called “chapter proceedings” and has since been used to refer to actions of this nature.

### MOVE TO DELETE 'INELIGIBLE' NAMES FROM ASSAM NRC

#### GENERAL STUDIES- II (IMPORTANT ASPECTS OF GOVERNANCE)

Earlier this week, the National Register of Citizens (NRC) authorities in Assam ordered the deletion of “ineligible” names that had erroneously made it into the prepared register.

#### Whose names will be deleted?

- The state coordinator of the NRC, said that “some names of ineligible persons” — **persons ‘declared as foreigners’ (DF) by Foreigners Tribunals, persons marked as ‘Doubtful Voters’ (DV) by election officials, or persons whose cases are ‘pending at Foreigners Tribunals’ (PFTs), and their descendants** — had “found entry to the NRC”.
- The Ministry of Home Affairs told Lok Sabha that **only four persons who were declared ‘foreigners’ had (until then) been deported to Bangladesh**, while a total 1,29,009 persons had been declared as foreigners by the FTs.

#### What are the Foreigners Tribunals?

Foreigners Tribunals (FTs) are **quasi-judicial bodies** meant to give opinion on whether a person is an “illegal foreigner” as per The Foreigners Act, 1946.

- They **send notices to people who are referred to them by the Border Police**, or who have been marked as ‘D’ (doubtful) voters by the local election office.
- As per the laws governing the preparation of the NRC, persons falling in the above categories cannot be included in the NRC.

#### Is there a political context to the new announcement about the “ineligible” names and the deletions?

- The state government has maintained that **a 10%-20% re-verification is necessary to get a “correct” register.**
- The Assam government has reiterated that it sticks to its demand of re-verification — 20% in border districts and 10% elsewhere — of the included names in the final NRC.

#### Where does the NRC stand now?

The NRC process has hit a wall as of now since the **rejection orders to the 19 lakh excluded persons** — which will allow them to appeal against the exclusion in the Foreigners’ Tribunals — **is yet to be issued.**

Officials have cited **the Covid-19 pandemic as well as discrepancies in some rejection orders, which need to be re-checked, as reasons for the delay.** Meanwhile, without the rejection order, the excluded persons are stuck in a limbo.

### ANTI-TANK GUIDED MISSILES AND THEIR IMPORTANCE

#### GENERAL STUDIES- III (DEVELOPING NEW TECHNOLOGY)

The **indigenously developed** laser-guided version of the **Anti-Tank Guided Missile (ATGM)** was successfully test fired by the Defence Research and Development Organisation (DRDO) on two separate occasions recently.

It will undergo more validation tests in coming days before it is ready for the user trials.

#### History of ATGMs

- The development of ammunition that can pierce the armours of tanks and the material that can withstand such ammo has been an ongoing race **since World War I**.
- But it wasn't until the **World War II** that **armies across the world began to use the ATGMs, missile systems** that can strike and neutralise armoured vehicles such as tanks.

#### ATGM in India

While **Indian Army** mainly uses various imported anti-tank guided missiles, the DRDO has been working on ATGMs that can be launched from different platforms **as part of the Integrated Guided Missile Development Programme**.

- **The indigenously developed low weight, fire and forget Man Portable Anti-Tank Guided Missile (MPATGM)** was successfully in September last year.
- In February 2018, **ATGM Nag** was successfully tested in desert conditions.
- **In December 2019 the GOI has procured Anti-Tank Spike Missiles from Israel along with the allied systems** to meet operational requirements of the Indian Army.

#### How are laser-guided ATGMs different?

The laser-guided ATGM, which was successfully tested recently, **mainly differs in one aspect from other ATGMS developed till date**.

This ATGM is **designed to be fired from tanks**.

- With its range limited to **1.5 to 5 kilometers**, it **locks and tracks the targets with the help of laser designation** to ensure precision in striking the target.
- The missile uses a **'tandem' High Explosive Anti-Tank (HEAT) warhead**.
- The **term tandem refers** to the missiles using more than one detonation in order to effectively penetrate the protective armours.
- **This Laser Guided ATGM** is currently undergoing **tests to be integrated with India's Main Battle Tank (MBT), Arjun**.

## Importance in armoured warfare

The role of armoured and mechanised vehicles has remained decisive even in modern day warfare because of their ability to go past conventional defenses.

- **Tank battles are generally fought in a close range of under five kilometers.** The objective is to hit the enemy tank before they can take a clear shot.
- The missile has the capability of engaging with the target even if it is not in the line of sight, thus further enhancing its capability.

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### DEVELOPMENT PROCESSES – SVAMITVA SCHEME

#### GENERAL STUDIES- II (DEVELOPMENT PROCESSES)

The SVAMITVA Scheme was launched by the Prime Minister on the occasion of National Panchayati Raj Day, April 24, earlier this year and distribution of property cards began on October 11.

#### What is the SVAMITVA card?

The acronym SVAMITVA stands for Survey of Villages and Mapping with Improved Technology in Village Areas.

- It is a **Central Sector Scheme.**
- It aimed at “providing ‘record of rights’ to village household owners possessing houses in inhabited rural areas in villages and issuance of property cards to the property owners.”
- The plan is to survey all rural properties using drones and prepare GIS based maps for each village.

#### What are the Property cards?

- Property card for every property in the village will be prepared by states using accurate measurements delivered by drone-mapping.
- These cards will be given to property owners and will be recognised by the land revenue records department.

#### Who will own the SVAMITVA data?

According to the framework, the orthorectified base maps shall be jointly owned by the Survey of India, Ministry of Panchayati Raj and the state government.

- The GIS data will also be jointly owned by Centre and State.
- However, the data related to property details will be owned by the State Revenue Department as it has the authority to mutate the Right of Records (RoRs) and update the maps.

#### Benefits of a SVAMITVA property card

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According to the Ministry of Panchayati Raj, which has piloted SVAMITVA, the scheme will benefit rural residents in many ways.

1. It will enable rural households to use their property as a financial asset for taking loans and other financial benefits.
2. It will help in determination of property tax, which would accrue to the Gram Panchayats directly in states where they are empowered to collect such taxes.
3. The cards will help increase liquidity of land parcels in the market and increase the financial credit availability to the village.
4. The scheme will also pave the way for creation of accurate land records for rural planning.
5. All the property records and maps will be available at Gram Panchayat, which will help in taxation of villages, construction permits, elimination of encroachments, etc.
6. The property maps will be made using the GIS technique and the same can also be used for better-quality Gram Panchayat Development Plan (GPDP).

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### ASSAM-MIZORAM, AND THE OTHER BOUNDARY ISSUES IN NORTHEAST

#### GENERAL STUDIES- I (POST-INDEPENDENCE CONSOLIDATION WITHIN THE COUNTRY)

Over the last one week, residents of Assam and Mizoram have clashed twice over territory, injuring at least eight people and torching a few huts and small shops.

##### **Borders between the states**

**Mizoram borders Assam's Barak Valley and both the states border Bangladesh.**

- Mizoram civil society groups blame **"illegal Bangladeshis"** on the Assam side.
- A **students' union of Mizoram, MZP (Mizo Zirlai Pawl)** claimed that, "Illegal Bangladeshis are creating all this trouble. They come and destroy our huts, cut our plants and this time pelted stones on our policemen."

##### **How complex is the boundary dispute?**

In the Northeast's complex boundary equations, **showdowns between Assam and Mizoram residents are less frequent than they are between, say, Assam and Nagaland residents.**

- Nevertheless, the **boundary between present-day Assam and Mizoram, 165 km long today**, dates back to the colonial era, **when Mizoram was known as Lushai Hills**, a district of Assam.
- The Assam-Mizoram, and the other boundary issues in Northeast stems **from a notification of 1875 that differentiated Lushai Hills from the plains of**

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**Cachar**, and **another notification of 1933** that demarcates a boundary between Lushai Hills and Manipur.

## Longstanding dispute

The boundary dispute between the two states has been simmering since the formation of Mizoram as a separate state in the 1980s.

- According to an agreement between governments of Assam and Mizoram some years ago, status quo should be maintained in no-man's land in the border area.
- However, clashes have erupted from time to time over the issue.

## Other boundary issues in the Northeast

During British rule, **Assam included present-day Nagaland, Arunachal Pradesh and Meghalaya besides Mizoram**, which became separate state one by one.

Today, **Assam has boundary problems with each of them.**

- **Nagaland shares a 500-km boundary with Assam.** According to a 2008 research paper, violent clashes and armed conflicts, marked by killings, have occurred on the Assam-Nagaland border since 1965.
- **On the Assam-Arunachal Pradesh boundary (over 800 km)**, clashes were first reported in 1992, according to the same research paper.
- Since then, there have been several accusations of illegal encroachment from both sides, and intermittent clashes.
- **The 884-km Assam-Meghalaya boundary**, too, witnesses flare-ups frequently.
- As per Meghalaya government statements, today there are 12 areas of dispute between the two states.

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### KALESHWARAM LIFT IRRIGATION PROJECT

#### GENERAL STUDIES- III (CONSERVATION)

- **The National Green Tribunal (NGT)** has held that **environmental clearance (EC)** to **Kaleshwaram Lift Irrigation Project (KLIP)** was granted **ex post facto**, after completion of substantial work, by the Ministry of Environment, Forests and Climate Change (MoEF&CC) **"in violation of law"**.

#### What is the Kaleshwaram Lift Irrigation Project?

The Kaleshwaram Lift Irrigation System is **considered to be one of the world's largest multi-purpose projects.**

- It is designed to **provide water for irrigation and drinking purposes** to about 45 lakh acres in 20 of the 31 districts in **Telangana**, apart from **Hyderabad and Secunderabad**.

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- The project starts at the **confluence point of Pranahita River and Godavari River.**

## What does the project entail?

- This project is unique because **Telangana will harness water at the confluence of two rivers with Godavari by constructing a barrage at Medigadda in Jayashankar Bhupalpally district and reverse pump the water into the main Godavari River.**
- The water will be diverted then **through lifts and pumps into** a huge and complex system of reservoirs, water tunnels, pipelines and canals.

## How important is KLIS to Telangana?

Kaleshwaram will **transform Telangana into an agricultural powerhouse.**

- The project will enable farmers in Telangana to reap multiple crops with a year-round supply of water wherein earlier they were dependent on rains resulting in frequent crop failures.
- Apart from providing water for irrigation to 45 lakh acres, a main component of the project is **supply of drinking water to several towns and villages and also to twin cities of Hyderabad and Secunderabad.**

## What is the recent order of the National Green Tribunal?

On October 12, the **Principal Bench of the National Green Tribunal**, New Delhi, ruled that the **Environmental Clearance given to the project in December 2017 was void** as the Telangana government subsequently changed the design of the project to increase its capacity.

- The **NGT also directed the Union Ministry of Environment, Forests, and Climate Change** to constitute a **seven-member Expert Committee** within a month to assess the extent of damage caused in going ahead with the project's expansion and identify the restoration measures necessary.
- **The NGT directed the Telangana Government** to stop all work except the drinking water component and obtain a Forest Clearance from the Centre before going ahead with the project.

## GIST OF EDITORIALS 23<sup>rd</sup> OCTOBER 2020

### ISSUES RELATING TO THE DEVELOPMENT OF THE SOCIAL SECTOR

#### GENERAL STUDIES- II (NHRC ADVISORY ON SEX WORK)

The National Human Rights Commission (**NHRC**) **recognised sex workers as informal workers** in their advisory issued on October 7 on "Human Rights of Women in the context of COVID 19".



## What is the NHRC advisory related to sex workers?

The NHRC in an effort to secure the rights of all women who have been excluded and marginalised during the Covid-19 pandemic, included **sex workers as informal workers in their advisory on 'Women at Work'**.

- **The advisory, issued on October 7, asked** the Ministries of Women and Child Development, Labour, Social Justice, Health, and Consumer Affairs in all states and Union Territories **to recognise sex workers as informal workers and register them so they are able to avail the benefits of a worker.**
- The Ministries have been asked **to issue temporary documents** so that the sex workers like all other informal workers, can access all welfare measures and health services.

## Why is the advisory important?

The advisory included sex workers among groups that they were considered as part of vulnerable and marginal sections of society.

- It thereby **considering them as citizens who are deserving of protection of human rights** in the time of the pandemic.
- To do this, NHRC had sought expert advice, and both the government and constitutional bodies had stood by the protection of the human rights and dignity of sex workers.

## Who is opposing this advisory, and why?

The loudest voice in opposition is that of Padma Shri awardee Sunitha Krishnan and her Organisation Prajwala — which has rescued, rehabilitated, or served more than 23,000 survivors of sex trafficking — have asked the NHRC to withdraw the advisory.

- In an anguished letter, “It is an absolute failure on our part to not provide viable options to women to engage in productive work,” she wrote.
- **The Immoral Traffic (Prevention) Act** — lays down that the institution of prostitution is illegal.
- **Sex is either a consensual engagement** between two adults **or it is rape.**
- **Commercial sex**, if engaged through any institutional process is illegal and liable for prosecution. Hence Government of India never recognised sex work.
- Krishnan urged the NHRC to withdraw Section III (B) of the ‘Women at Work’ advisory which she **said had practically asked the government to legalise sex work** by giving it a legitimate registration status.

## What has been the reaction to Krishnan's letter?

Several organisations including the Forum against Oppression of Women, have protested against Krishnan's letter to the NHRC.

According to them, ‘Krishnan's letter is a direct attack on the rights of vulnerable communities like sex workers in the context of Covid-19 — the biggest pandemic of our times’.

### TUBULAR SALIVARY GLANDS

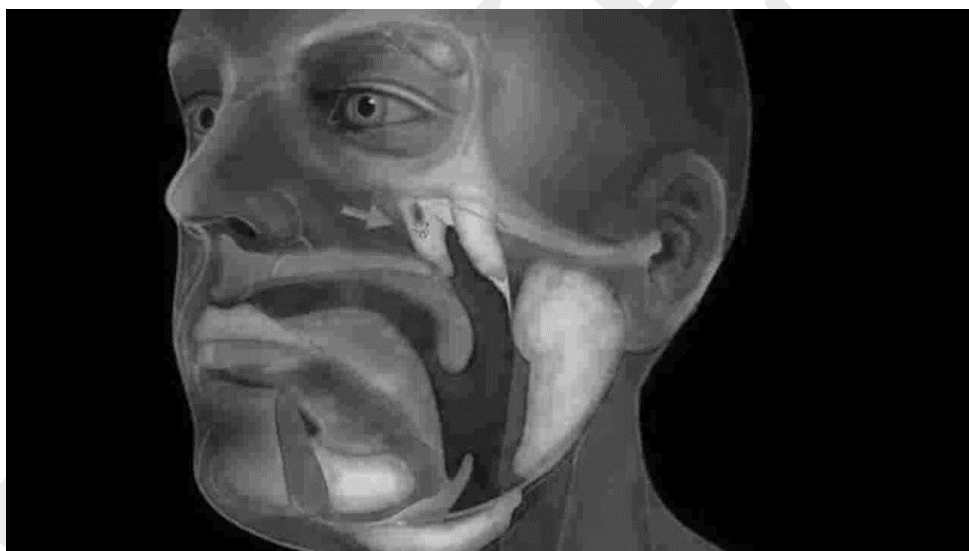
#### GENERAL STUDIES- III (SCIENCE & TECHNOLOGY)

Scientists have found a new organ in the human body. **Scientists in the Netherlands were investigating a new cancer scan.** He then finds a **new organ in his throat.**

#### Highlights

Research has shown that there **is a group of glands in the upper part of the human neck that we were not aware of until now.**

- Scientists have **named the new organ discovered in the body as the tubular salivary glands.**
- Scientists believe that this **organ helps in lubricating the nose.**
- Scientists believe that people can benefit if **these glands are not affected by radiation treatment.**



#### How it was discovered?

Scientists at the Cancer Institute in Amsterdam, Netherlands, **were testing a scan called PSMA PET-CT, which was designed to detect prostate cancer.**

- During this time the doctor **injects a radioactive tracer** into the patient's body.
- A new **organ has been discovered due to a radioactive tracer.**
- Scientists say that the group of glands is 1.5 inches long and **resembles the salivary glands.**
- 100 patients were screened during the study. This organ was present in all of them.

#### Significance of this discovery

- The discovery can help **improve people's quality of life receiving radiation therapy for head and neck cancer.**

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- Circulating these glands in radiotherapy can help reduce the difficulty in swallowing and swallowing patients with head and neck cancer experience after radiation therapy.

## GIST OF EDITORIALS 26<sup>th</sup> OCTOBER 2020

### NASA'S OSIRIS-REX MISSION

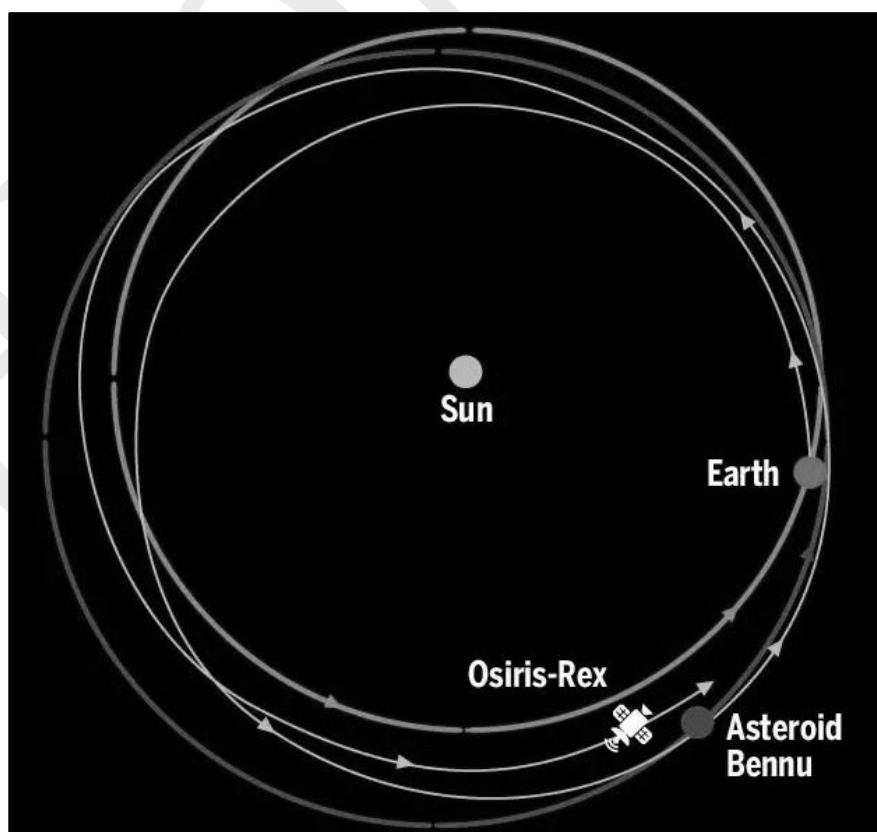
#### GENERAL STUDIES- III (AWARENESS IN THE FIELDS OF SPACE)

NASA's OSIRIS-REx spacecraft, which was sent to collect rocks and dust from the **surface of a near-Earth asteroid Bennu, located over 200 million miles away from Earth**, is now so stuffed with cosmic rubble that a door was wedged open and precious samples are presently leaking into space.

#### What is the OSIRIS-REx mission?

OSIRIS-Rex stands for **Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer**.

- This is NASA's first mission meant to return a sample from the ancient asteroid.
- It **was launched in 2016**, it reached its target in 2018.
- NASA's OSIRIS-REx spacecraft contains five instruments meant to explore Bennu including cameras, a spectrometer and a laser altimeter.
- The departure window for the mission will open up in 2021, after which it will take over two years to reach Earth.



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## What is asteroid Bennu?

- **Asteroid Bennu was first discovered by a team from the NASA-funded Lincoln Near-Earth Asteroid Research team in 1999.**
- **It was named after an Egyptian deity** by a nine-year-old boy from North Carolina in 2013 who won NASA's "Name that Asteroid" competition.
- **Located around 200 million miles away from Earth**, asteroid Bennu is around the size of the Empire State Building in New York.

## Why Asteroid Bennu was chosen?

- Asteroid Bennu **hasn't undergone drastic changes since its formation over billions of years ago** and, therefore, it contains chemicals and rocks dating back to the birth of the solar system.
- It is also **relatively close to the Earth**.

## Significance of the Mission

Because of Asteroid Bennu's age, **it is likely to contain material that contains molecules that were present when life first formed on Earth**, where life forms are based on carbon atom chains.

- Because of its high carbon content, the **asteroid reflects about four per cent of the light that hits it**.
- In comparison to this the planet **Venus, reflects about 65 per cent of the light** that hits it and the **Earth reflects about 30 per cent**.
- It **classified as a Near Earth Object (NEO)**, might strike the Earth in the next century, between the years 2175 and 2199.

## GIST OF EDITORIALS 27<sup>th</sup> OCTOBER 2020

# THE POLITICS OF THE PINK PANTSUIT

## GENERAL STUDIES- II (EFFECT OF POLICIES AND POLITICS OF DEVELOPED COUNTRIES ON INDIAN DIASPORA)

Recently, celebrities in USA are starting a campaign in a pop pink pantsuit on social media, with the caption "**Gladiator in a (pink) suit**".

"Political pink" has become the colour of activism in the US, as a pivotal election approaches next month.

**It is a part of a digital campaign in the run-up to the American elections on November 3.**

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## Why are celebrities posting selfies in pink suits on social media?

- With the hashtag **#AmbitionSuitsYou**, the social media campaign means to mobilise American women to vote.
- Celebrities have personalised a pink suit in different ways, but with the collective intention of supporting women candidates running for office.

## The 'Pink' as a political colour

Since the 1990s, if not earlier, **feminist and queer movements have reinvented the gendered colour into a political choice.**

- Historically, for much of the 18th century in the West, **pink was seen as an “active” colour and preferred for elite boys, rather than girls.**
- Over time, **dress manufacturers started colour coding pink for girls and blue for boys** to increase sales of apparel for infants.
- Earlier **seen as “girly” (meaning, feminine and weak)**, pink was subverted as a statement of strength and as one of the best ways to push against gender stereotyping.
- The **use of pink ribbons for breast cancer awareness in 1992** is one of the earliest such examples.

## Is pink political in India too?

In India, too, pink is strongly associated with women's movements.

- **The Gulabi Gang from Uttar Pradesh**, which works to end violence against women, is instantly recognisable by the pop pink saris its members wear.
- **The Pink Chaddi Campaign of 2009** was a protest in which people sent pink underwear to Pramod Muthalik of the Sri Ram Sena.

## GIST OF EDITORIALS 28<sup>th</sup> OCTOBER 2020

### WATER ON THE MOON: A DISCOVERY, AN ESTIMATE, AND WHY IT MATTERS

#### GENERAL STUDIES- III (AWARENESS IN THE FIELDS OF IT, SPACE)

The **Moon has water at places where none had been detected before**, and has potentially more water than previously believed in regions where it was already understood to exist.

#### Why is the discovery of water important?

Apart from being a **marker of potential life**, water is a precious resource in deep space.

- For astronauts landing on the Moon, **water is necessary not only to sustain life but also for purposes such as generating rocket fuel.**

- If space explorers can use the Moon's resources, it means they need to carry less water from Earth.

## What was known about water on the Moon?

Previous Moon studies, including by the Indian Space Research Organisation's (ISRO) **Chandrayaan-1 mission**, have provided evidence for the existence of water.

- In 2009, the **Moon Mineralogy Mapper (M3)** instrument aboard Chandrayaan-1 **found water molecules in the Polar Regions**.
- However, **what was not established in such studies** was whether the detected molecules were water as we know it (H<sub>2</sub>O) or in the form of hydroxyl (OH).

## What is different in the new discovery?

- This time, **it is confirmed H<sub>2</sub>O molecules, discovered in Clavius Crater in the Moon's southern hemisphere**.
- And it is the **first time water has been detected on the sunlit side**, showing it is not restricted to the shadowy regions.

## SOFIA's mission

**SOFIA, which is a modified Boeing 747SP jetliner**, has a mission is to look at dark and distant objects.

- **SOFIA** flies at altitudes up to 45,000 feet, has an infrared camera that picked up the wavelength unique to water molecules.
- The data showed water in concentrations of 100-412 parts per million trapped in 1 cubic metre of soil.

## How could the water have formed?

**Space rocks carrying small amounts of water could have bombarded the Moon.**

- Alternatively, **the Sun's solar wind could have carried hydrogen**, which then reacted with minerals in the lunar soil to create hydroxyl, which later transformed into water.
- One possibility is that the **water gets trapped into tiny bead-like structures** that were created in the soil by impacts from space rocks.
- Alternatively, the **water could be hidden between grains of lunar soil** and sheltered from the sunlight, NASA said.

## What next?

SOFIA will look for water in additional sunlit locations **to learn more about how the water is produced, stored, and moved across the Moon.**

Meanwhile, **NASA's Volatiles Investigating Polar Exploration Rover (VIPER)** will carry out a mission to create the first water resource maps of the Moon.

### MUSLIM-HINDU DEMOGRAPHY OF JAMMU AND KASHMIR

#### GENERAL STUDIES- I (DIVERSITY OF INDIA)

The land laws that were amended and notified by the Centre for the Union Territory of Jammu and Kashmir on October 26 have omitted the protection earlier available to its “permanent residents”.

It allows the purchase of non-agricultural land by outsiders, even though the government may provide some protection through notifications.

#### Concerns from the new law

The decision has given fresh wind to fears expressed by political parties in Kashmir about attempts to fundamentally alter the demography of the Valley.

The Census of 2011 showed that the religious make-up of the erstwhile state of Jammu and Kashmir had remained almost entirely unchanged over the previous half century.

#### The demographic make-up of the state of Jammu and Kashmir before Independence

- The pre-Independence Census of 1941 recorded Muslims as constituting 72.41% of the population, and Hindus 25.01%.
- Thereafter, the proportion of Muslims in the state's population fell gradually.

So how did the demography of Jammu and Kashmir change between Independence and now?

#### Jammu and Kashmir was not a part of independent India's first Census in 1951.

- The 1961 Census showed that Muslims, with a population of 24.32 lakh, constituted 68.31% of the state's population of 35.60 lakh, while Hindus, numbering 10.13 lakh, made up 28.45%.
- A full 50 years later, these percentages came out identical: The Census of 2011 recorded the Muslim population at 24.32 lakh — again, 68.31% of the total population of 35.60 lakh (1.25 crore). And the Hindu population was 10.13 lakh — 28.43% of the total.

#### The share of population of the two communities change in the Censuses in between?

The percentage of Muslims in the (erstwhile) state started to fall after the 1961 Census when the community made up 68.3 per cent of the population.

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- In the Census of 1971, it was 65.83 per cent and, in the Census of 1981, it fell to 64.19 per cent.
- The beginning of militancy ensured **no Census could be conducted in Jammu and Kashmir in 1991.**
- But in the **next Census in 2001**, the proportion of Muslims in the population touched 66.97 per cent — more than the community's share in 1971.
- **And in 2011 Census**, it had risen further to reach exactly what it was in 1961 (68.31%).

## Demography change at the level of individual districts

Jammu and Kashmir originally had 14 districts — **six each in the Kashmir and Jammu divisions, and two in Ladakh.**

- **In 2006, eight new districts were created**, taking the total number of districts in the erstwhile state to 22.
- Of these, **17 are Muslim majority** — 10 in Kashmir, six in Jammu, and one in Ladakh.
- **Hindus are the majority community in four districts** of the Jammu division; **Buddhists are the majority in Leh.**

## The share of migrants in the population of (the erstwhile state of) Jammu and Kashmir

Only about 1.64 lakh (1.31 per cent) of the 1.25 crore population of Jammu and Kashmir (as per the 2011 Census) are people who stay there, but who were born elsewhere.

In India as a whole, **4.64 per cent of the population lives in a state in which they were not born.**

## GIST OF EDITORIALS 30<sup>th</sup> OCTOBER 2020

# COMMISSION FOR AIR QUALITY MANAGEMENT IN THE NATIONAL CAPITAL REGION

## GENERAL STUDIES- III (ENVIRONMENTAL POLLUTION)

The President of India on October 28 signed The **Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2020.**

### Why has the central government set up this Commission?

The **monitoring and management of air quality in the Delhi NCR region** has been done piecemeal by multiple bodies including:

- The Central Pollution Control Board (CPCB),
- The state pollution control boards,
- The state governments in the region, including Delhi, Haryana, Uttar Pradesh, and Rajasthan, and



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- The Environment Pollution (Prevention and Control) Authority (EPCA) of the National Capital Region.

**They in turn are monitored by** the Union Ministry of Environment and Forests and Climate Change (MoEF), **and the Supreme Court itself**, which monitors air pollution as per the judgment in 'M C Mehta vs Union of India', 1988.

## Aim of the Ordinance

- The Ordinance seeks **to create an overarching body to consolidate all monitoring bodies**, and to bring them on one platform so air quality management can be carried out in a more comprehensive, efficient, and time-bound manner.
- The **Centre also seeks to relieve the Supreme Court from having to constantly monitor pollution levels** through various pollution-related cases.

## Composition of this Commission

**The Commission, which will be a permanent body.**

It will have over 20 members, and will be **chaired by a retired official of the level of Secretary** to the Government of India **or Chief Secretary of a state**.

- It will include a representative of the **Secretary of the MoEF, five Secretary level officers** who will be ex officio members, and **two joint secretary level officers** who will be full-time members.
- The Commission will also **have representation from the CPCB, ISRO, air pollution experts, and three representatives of non-government organisations (NGOs)**.
- **As associate members**, the Commission will have representatives from various other Ministries including the Ministries of Agriculture, Petroleum, Power, Road Transport and Highways, Housing and Urban Affairs, and Commerce and Industry.

## Powers and functions of the Commission

In matters of air pollution and air quality management, **the Commission will supersede all existing bodies such as the CPCB, and even the state governments of Haryana, Punjab, Rajasthan, and Uttar Pradesh.**

- It will have the powers **to issue directions to the states**.
- The Commission will **also coordinate efforts of state governments to curb air pollution**, and will lay down the parameters of air quality for the region.
- It will have **powers to restrict the setting up of industries in vulnerable areas**, and will be able to conduct site inspections of industrial units.

## Penal powers of the Commission

**If its directions are contravened**, through say, the Commission will have **the power to impose a fine of up to Rs 1 crore and imprisonment of up to 5 years.**

### STATE OF ORGANIC FARMING IN INDIA

#### GENERAL STUDIES- III (AGRICULTURE)

Organic farming is in a nascent stage in India. **About 2.78 million hectare of farmland was under organic cultivation as of March 2020**, according to the Union Ministry of Agriculture and Farmers' Welfare.

This is **two per cent of the 140.1 million ha net sown area in the country**.

#### Organic farming in states

A few states have taken the lead in improving organic farming coverage, as a major part of this area is concentrated only in a handful of states.

- **Sikkim is the only Indian state to have become fully organic so far.**
- **Madhya Pradesh tops the list with 0.76 million ha** of area under organic cultivation — that is over 27 per cent of India's total organic cultivation area.
- **The top three states — Madhya Pradesh, Rajasthan and Maharashtra — account for about half the area under organic cultivation.**
- The top 10 states account for about 80 per cent of the total area under organic cultivation.

Only a fraction of area is converted under organic

A majority of the states have only a small part of their net sown area under organic farming.

- **A few states such as Meghalaya, Mizoram, Uttarakhand, Goa and Sikkim have 10 per cent or more of their net sown area under organic cultivation.**
  - Union Territories such as Delhi, Dadra and Nagar Haveli and Daman and Diu, Lakshadweep and Chandigarh **also have 10 per cent or more of their net sown area under organic cultivation**, but their **agricultural area is very small.**
  - Almost all other states have less than 10 per cent of their net sown area under organic.
- States like, Andhra Pradesh, Himachal Pradesh, Kerala, Uttarakhand, Mizoram, Nagaland and Arunachal Pradesh **have expressed their desire to become fully organic or natural-farming states.**

Organic coverage largely under National Programme for Organic Production (NPOP)

India introduced the **organic farming policy in 2005.**

- **NPOP scheme, which started in 2001**, covers about 70 per cent of the organic area of the country of which 30 per cent is under conversion.

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- India's top organic state Madhya Pradesh has about 90 per cent of its organic area under NPOP.
- The top three states — Madhya Pradesh, Maharashtra and Rajasthan — collectively have over 80 per cent of their organic area under NPOP.

### Way forward

Even though India has very small organic area under cultivation, in terms of number of organic farmers it is being ranked first.

- India has over 1.9 million farmers as of March 2020, which is 1.3 per cent of 146 million agricultural landholders.
- In addition, there are farmers who are not certified and hence not counted, especially by-default organic farmers in hilly, tribal and rain-fed regions.



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