

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 24-02-2024

Table of Content

APEDA forms dedicated Organic Promotion Division

India-Oman Cooperation in the Archival Field

Surrogacy (Regulation) Amendment Rules, 2024

Nordic-Baltic Eight (NB8)

MHA Allocates Financial support to Poor Prisoners

Plasma Analyser Package for Aditya-L1 (PAPA)

Germany Legalizes Recreational Cannabis Use

Synthetic antibody to neutralize snake bite toxin

News in Short

Sant Guru Ravidas

Umbrella Scheme on "Safety of Women"

Calling Name Presentation (CNP)

First Private Spacecraft Landing on Moon

APEDA FORMS DEDICATED ORGANIC PROMOTION DIVISION

Context

- Agricultural and Processed Food Products Export Development Authority (APEDA) has created a dedicated organic promotion division for the promotion of organic exports.

Organic farming in India

- India occupies **fifth place** globally with a total area of **2.66 million** hectares in organic farming.
- **Madhya Pradesh** has the largest area under organic certification followed by Maharashtra, Rajasthan, Gujarat and Karnataka.
- **Sikkim** is India's first fully organic state, with implementing organic practices on around 75,000 hectares of agricultural land.
- **In 2022-23**, India produced around **2.9 million metric tonnes** of certified organic products like oil seeds, cereals and millets, cotton, pulses among others.
- The exports of India's organic products stood at **\$708 million in 2022-23** and considering the global market size of around \$138 billion, there is a tremendous scope to increase the organic exports in the near future.

Advantages of Organic farming

- **Healthier Food Products:** Organic farming avoids the use of synthetic fertilizer, pesticides, herbicides etc. This results in food products that are free from harmful chemical residues with higher levels of essential nutrients.
- **Enhanced Soil Health:** Organic farming methods focus on building and maintaining soil health by increasing organic matter content, microbial activity, and nutrient cycling.
- **Economic Opportunities:** Organic farming provides economic benefits to farmers through premium prices for organic products, access to niche markets, and reduced input costs over the long

term.

- **Climate Change Mitigation:** Organic farming practices such as composting and organic soil management contribute to carbon sequestration in the soil, helping to mitigate climate change by reducing greenhouse gas emissions.
- **Biodiversity Conservation:** Organic farming practices support biodiversity by creating habitats for beneficial insects, birds, and other wildlife.

Challenges in Organic farming

- **Yield Limitations:** Organic farming typically yields lower outputs compared to conventional farming methods, at least in the short term.
- **Weed Control:** Weed management is a significant challenge in organic farming, as synthetic herbicides cannot be used. Organic farmers rely on methods such as manual weeding, mulching, and cover cropping, which is labor-intensive and time-consuming.
- **Access to Organic Inputs:** Organic farmers face difficulties in accessing certified organic seeds, fertilizers, and other inputs, especially in remote or underdeveloped regions.
- **Certification and Compliance:** Obtaining organic certification requires adherence to strict standards and regulations, which is complex and costly for farmers, especially smallholders.

Organic certifications systems in India

- **National Programme for Organic Production (NPOP):** It is under the Ministry of Commerce and Industry for development of the export market.
 - ♦ It is a **third party certification programme** where the production and handling of activities at all stages such as production, processing, trading and export requirements for organic products is covered.
- **Participatory Guarantee System (PGS-India):** In the operation stakeholders (including farmers/producers) are involved in decision

making and essential decisions about the operation of the PGS-India certification itself by assessing, inspecting and verifying the production practices of each other and collectively declaring produce as organic.

- ♦ It is under the Ministry of Agriculture and farmers Welfare for meeting the demand of the **domestic market**.
- Food Safety Regulation has made it mandatory for organic products to be certified under NPOP or PGS for being sold in the domestic market under the **Jaivik Bharat logo**.

Agricultural and Processed Food Products Export Development Authority (APEDA)

- It was set up in **1986** through an Act of Parliament under the **Ministry of Commerce and Industry**, Government of India.
- **Headquarters:** New Delhi
- APEDA is mandated with the responsibility of export promotion and development of the products like Fruits, Vegetables, Meat, Poultry and their Products, etc.
- APEDA functions as the Secretariat to the National Accreditation Board (NAB) for implementation of accreditation of the **Certification Bodies under National Programme for Organic Production (NPOP)** for organic exports.

Government Schemes for organic farming

- **Paramparagat Krishi Vikas Yojana (PKVY):** The schemes stress on end-to-end support to farmers engaged in organic farming i.e. from production to processing, certification and marketing and post-harvest management.
 - ♦ Training and Capacity Building are integral parts of the scheme.
- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER):** The scheme is being implemented exclusively in the

NE States to support farmers engaged in organic farming.

Way Ahead

- The shift in global consumption patterns towards healthier, safer, sustainable and nutritious food has propelled organic products into the limelight.
- The surge in demand presents a golden opportunity for India, to meet the growing global demand for organic products and to tap into the global organic food market.

Source: **PIB**

INDIA-OMAN COOPERATION IN THE ARCHIVAL FIELD

Context

- A delegation of the National Archives of India (NAI), visited the National Records and Archives Authority (NRAA) of Oman to explore the areas of bilateral cooperation in the archival field.

What are Archives?

- Archives are the priceless documentary heritage of any nation and as the premier archival institution in the country.
- The National Archives of India plays a key role in guiding and shaping the development of archival consciousness both at the national as well as state level.

India-Oman Relation

- **Economic Cooperation:** India is among Oman's top trading partners. Bilateral trade in 2022-23 stood at around **\$12.3 billion** between both the nations.
 - ♦ India is the **2nd largest market** for Oman's crude oil exports for the year 2022 after China.
 - ♦ India is also the **4th largest** market for Oman's non-oil exports for the year 2022 and **2nd largest** source of its import after UAE.
- **Defense Cooperation:** India and Oman conduct regular biennial bilateral exercises between all three services.
 - ♦ Army exercise: Al Najah
 - ♦ Air Force exercise: Eastern Bridge

- ♦ Naval Exercise: Naseem Al Bahr
- **Indian Diaspora:** There are about **7,00,000** Indians in Oman, of which about 5,67,000 are workers and professionals.
 - ♦ There are Indian families living in Oman for more than 150-200 years.
- **Maritime Cooperation:** Oman is at the gateway of **Strait of Hormuz** through which India imports one-fifth of its oil imports.
 - ♦ India signed a pact with the country in 2018 to access the **Duqm port** of Oman.

India Eyes Strategic Heft Through Duqm



Agreements between India and Oman

- In 2022, the **Central Bank of Oman (CBO)** signed a Memorandum of Understanding (MoU) with the **National Payments Corporation of India (NPCI)** to link the payment systems between the two countries.
- Another MOU between **Oman News Agency** and **Asia News International** was exchanged. The MOU facilitates the exchange of news and information between both countries.

Way Ahead

- Oman is a key pillar to India's West Asia Policy. The strategic location of Oman in the Gulf region and India's emergence as a global player further enhance the significance of their relationship.
- By building on their historical ties and adapting to the changing global landscape, India and Oman can continue

to contribute to regional stability and prosperity.

National Archives of India (NAI)

- NAI was established in **1891**, at **Calcutta as the Imperial Record Department** in British India. Later it was shifted to **Delhi**.
- **Governance:** It is under the administrative control of the **Ministry of Culture**.
- NAI is the biggest archival repository in South Asia. It has a vast corpus of records viz., public records, private papers, oriental records, cartographic records and microfilms etc.
- **The Functions** of the NAI are as follows:
 - ♦ The NAI is the custodian of **all non-current government records**, holding them for the use of administrators and scholars.
 - ♦ It keeps and conserves records of the government and its organizations only, and **does not receive classified documents**.
 - ♦ As per the **Public Records Act, 1993**, various central ministries and departments are supposed to transfer records more than **25 years old** to the NAI, unless they pertain to classified information.

Source: TH

SURROGACY (REGULATION) AMENDMENT RULES, 2024

Context:

- Recently, the Union Ministry of Health and Family Welfare amended the surrogacy Rules to allow couples to use donor eggs or donor sperm for surrogacy.

Background: Why was it introduced?

- The amendment was introduced following several petitions and court cases challenging the previous rules.
 - ♦ For instance, the Supreme Court received petitions across the country after it allowed a woman with **Mayer-**

Rokitansky-Kuster-Hauser (MRKH) Syndrome, a rare congenital disorder that affects the reproductive system and can cause infertility, to avail surrogacy with a donor egg.

- Prior to this, surrogacy rules allowed the use of donor eggs, but not sperm.

Key Features and Associated Concerns

- **Use of Donor Gametes:** The amendment allows the use of donor gametes (eggs or sperm) in cases where the **District Medical Board** certifies that either the husband or wife constituting the intending couple suffers from a medical condition necessitating the use of a donor gamete.
 - ♦ However, the use of donor gametes has raised concerns about the **rights of the donors** and the **legal implications of using donor gametes**.
- **Single Women and Surrogacy:** The amendment stipulates that if a divorced or widowed woman opts for surrogacy, the egg has to come from the mother.
 - ♦ However, it does **not allow a single, never-married woman** to use surrogacy for having children.
 - ♦ It seems as **discriminatory** and has been **challenged in the Supreme Court**.
- **Medical Conditions and Surrogacy:** The amendment keeps **surrogacy open to older women** as well as those who cannot produce eggs because of certain medical conditions.
 - ♦ However, the rule change is **not applicable for widowed or divorced women**.
 - If a divorced or widowed woman opts for surrogacy, the egg has to come from the mother.
 - ♦ It raised concerns about the health risks associated with surrogacy in older women and those with certain medical conditions

Surrogacy Laws in India

- Surrogacy comes under the reproductive choices of women and it is included as a **fundamental right** under the purview of **Article 21 of the Indian Constitution**.

Surrogacy (Regulation) Act (2021):

- It governs the practice and process of surrogacy in India.
- It provided a gestation period of ten months from the date of coming into force to existing surrogate mothers' to protect their well being.

Assisted Reproductive Technology (Regulation) Act:

- It was enacted for regulation and supervision of the assisted reproductive technology clinics and banks.
- Under the Act, the services can be made available to a woman above the age of 21 years and below the age of 50 years and to a man above the age of 21 years and below the age of 55 years.
- ART procedures include gamete donation, intrauterine insemination, and in-vitro fertilization or IVF.

Conclusion

- The Surrogacy (Regulation) Amendment Rules, 2024, represents a significant step forward in **making surrogacy more accessible** to couples facing medical issues.
 - ♦ However, it also **raises questions** about the rights of single women and the **need for further reforms** to ensure that the surrogacy laws in India are fair, equitable, and take into account the diverse needs and rights of all stakeholders.

Source: TH

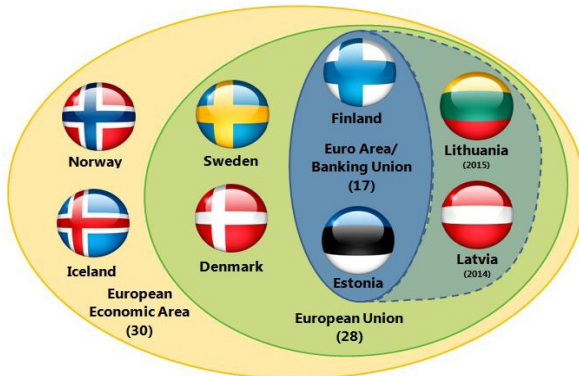
NORDIC-BALTIC EIGHT (NB8)

Context

- The eight **Nordic-Baltic countries (NB8)** participated in the recent **Raisina Dialogue** held in New Delhi.

Nordic-Baltic Eight (NB8)

- The NB8 is a **regional cooperation** format that brings together the **Nordic countries and the Baltic states**.



- ◆ *Denmark, Finland, Iceland, Norway, and Sweden (Nordic countries),*
- ◆ *Estonia, Latvia, and Lithuania (Baltic states)*
- Nordic countries are members of the European Union (except Iceland and Norway which are members of EFTA).
- These countries are linked geographically and share deep historical, social, economic, and cultural ties.

Importance of NB8

- They represent **advanced economies** that are outward-looking, innovation-driven, complementary, and **fully integrated into the world's largest single market area, the European Common Market**.
- The **Baltic countries are leaders** in IT, digitization and cyber and green technology.
- These countries share a commitment to democracy and human rights, and are all champions of an international order based on multilateralism and international law.

NB8 and India

- India's engagement with NB8 countries is expanding which includes the **India-Denmark Green Strategic Partnership**, India-Norway Task Force on **Blue Economy**, Sustainability and ICT cooperation with Finland, **'LeadIT' (Leadership for Industry Transition)** initiative with Sweden.

- The cooperation with them spans fields as diverse as **innovation, green transition, maritime, health, intellectual property rights, new technologies, space cooperation, and artificial intelligence**.
- Trade and investment** figures between the NB8 region and India are steadily increasing.
- The security of the **Nordic-Baltic region** and the **Indo-Pacific is interlinked**.

Source: TH

MHA ALLOCATES FINANCIAL SUPPORT TO POOR PRISONERS

Context

- The Ministry of Home Affairs has allocated **Rs 20 crore for providing financial assistance to poor prisoners**, who could not afford their bail money and continue to languish in jail.

About

- In a communication to all states, the MHA said that **each state should open a dedicated account for seamless flow of funds** from the Central government to state headquarters so that the funds could be disbursed to the needy.
 - ◆ **'Empowered Committee', with the assistance of District Legal Services Authority and prison authorities**, shall examine cases of eligible prisoners and shall have the power to sanction the amount required for paying fine or bail.
- All states and UTs were also asked to constitute **'Empowered Committees in all districts and an Oversight Committee' at the state or UT headquarters level and appoint a nodal officer** who may engage with the Central Nodal Agency (CNA) – National Crime Records Bureau.

Issues related to Prisons in India

- India's prison system forms a **backbone of its criminal justice system**. It faces several challenges despite ongoing reform

efforts.

- **Overcrowding:** Indian prisons are severely overcrowded, often exceeding their capacity by **100% or more** and going as high as **177% in States like UP**.
 - ♦ This leads to inadequate living conditions, sanitation issues, and increased risk of violence and disease.
- **Under-trial population:** A significant portion (**76%**) of the prison population comprises undertrials awaiting trial, often for extended periods due to judicial delays.
 - ♦ This raises concerns about the presumption of innocence and **prolonged incarceration without conviction**.
- **Inadequate infrastructure and facilities:** Many prisons lack basic amenities like proper ventilation, sanitation, healthcare facilities, and educational opportunities, hindering rehabilitation and reintegration efforts.
- **Social stigmas:** Caste based segregation in prisons of India has been found, where dalits have separate wards and manual work is allotted on caste hierarchies.
- **Shortage of staff:** Prisons are often understaffed, leading to challenges in maintaining order, providing proper care for inmates, and implementing rehabilitation programs effectively.
- **Mental health concerns:** A substantial number of inmates struggle with mental health issues, requiring specialized care and support often unavailable within prisons.

Government Steps

- **All India Committee on Jail Reforms (Mulla Committee) 1980:** The committee recommended measures to expedite trials and decongest prisons, focus on rehabilitation and reintegration, programs for skill development, education, and mental health support for inmates, uphold the human rights of prisoners and improved training and professionalization of prison staff.
- **National Policy on Prisons, 2000:**

This policy emphasizes the need for humane conditions, rehabilitation, and reintegration.

- **Model Prison Manual 2016:** Outlining guidelines for the administration of prisons and the management of prisoners it aims to ensure humane conditions, uphold human rights, and promote the reformation and rehabilitation of inmates.
- **Modernisation of Prisons' Project (FY 2021-2026):** With a financial outlay of Rs. 950 crore, aimed at modernizing the prison equipment and strengthening the security infrastructure in the jails of the country.
- **Model Prisons and Correctional Services Act, 2023:** The Act mainly focuses on keeping the criminals in custody and enforcement of discipline and order in prisons.
- **Support to poor prisoners' scheme 2024:** Aimed at helping prisoners belonging to socially disadvantaged and low-income groups who do not have the financial means to pay their bail surety or fine amount to secure their release.

Measures

- **Decongestion measures:** Implementing fast-track courts, plea bargaining, and parole schemes to reduce the under-trial population and overcrowding.
- **Focus on rehabilitation:** Implementing programs promoting positive behavior change, anger management, and reintegration support to reduce recidivism rates.
 - ♦ **In Rajasthan's 'open prisons' model,** prisoners who have served one third of their sentences are eligible to shift to the open jails.
- **Collaboration:** Fostering collaboration between government agencies and civil society organizations to leverage expertise and resources for effective reform implementation.
 - ♦ **Law students along with NHRC helping Prisoners with Bail pleas in Delhi.**

- **Improved infrastructure:** Upgrading prison facilities to ensure basic amenities, proper sanitation, and healthcare services.
- **Skill development and education programs:** Providing inmates with opportunities to learn new skills and educational qualifications to improve their employability upon release.
- **Sensitization of prison staff:** Training prison staff on human rights, mental health awareness, and effective communication skills for better interaction with inmates.

Related Supreme court judgements

- **Charles Sobhraj v. Superintendent, Central Jail, Tihar (1978):** This case emphasized the need for prisoner rights, including proper living conditions and medical care.
- **Upendra Baxi v. State of U.P., (1983):** the Supreme Court ensured that the inmates of the protective Home at Agra did not continue to live in inhumane and degrading conditions and that the right to live with dignity enshrined in Article 21 of the Constitution was made real and meaningful for them.
- **Hussainara Khaton (IV) Vs. State of Bihar 1979:** The right to free legal services is an essential ingredient of reasonable, fair and just procedure, guaranteed under Article 21, for a person accused of an offence.
- **State of A.P. Vs. Challa Ramkrishna Reddy & Ors. (2000):** the Supreme Court held that a prisoner is entitled to all his fundamental rights unless his liberty has been constitutionally curtailed.
- **R.D. Upadhyay vs. State of A.P. & Ors 2006:** Children in jail are entitled to food, shelter, medical care, clothing, education and recreational facilities as a matter of right.
- **Rattiram v. State of M.P. (2012):** The accused is entitled to a speedy trial. The whole purpose of a speedy trial is intended to avoid oppression and prevent delay.

- **Shaheen Welfare Assn. v. Union of India 1996:** The undertrial prisoners charged with murder can be released on bail if their cases were pending for two years or more.

Way Forward

- **Sustained commitment:** Continued political will and budgetary allocation are crucial for implementing and sustaining reform initiatives.
- **Monitoring and evaluation:** Establishing robust mechanisms to monitor progress, evaluate the effectiveness of implemented reforms, and make necessary adjustments based on data and evidence.

Source: TH

PLASMA ANALYSER PACKAGE FOR ADITYA-L1 (PAPA)

Context:

- Recently, ISRO informed that the **Plasma Analyser Package for Aditya (PAPA)** payload onboard the **Aditya-L1** has been operational and performing nominally.

About the Plasma Analyser Package for Aditya-L1 (PAPA)

- It is **one of seven scientific payloads** aboard the 1,480-kg **Aditya-L1 (India's first mission to study the Sun)**, the solar probe of the ISRO which was inserted into a halo orbit at L1 in early January 2024.
- It is developed by the **Space Physics Laboratory (SPL)** at the Vikram Sarabhai Space Centre (VSSC).
- It is designed to **understand and gain deeper insights into** the phenomenon of the '**solar winds**' (outward expansion of plasma or a collection of charged particles) from the sun's corona and their composition.
 - ♦ Solar winds pose a threat to communications networks.
- It is **an energy and mass analyzer** designed for **in-situ measurements of solar wind electrons and ions** in the low energy range.

- The **preliminary analysis** shows that PAPA science data are of very good quality and the results **match similar observations** made by other instruments which are being operated at or around Lagrangian point L-1 by other space agencies.

Other Payloads in Aditya-L1

- **Visible Emission Line Coronagraph (VELC):** It allows viewing of the corona (the outermost part of the sun's atmosphere) by masking the glare of the photosphere (sun's surface). It could help explain why the **corona is 200 to 500 times hotter than the photosphere.**
- **Solar Low Energy X-ray Spectrometer (SoLEXS):** It studies solar flares. The sun's interiors contort the magnetic field, throwing out high-energy particles that reach Earth in the form of solar flares, disrupting radio communication and damaging satellites.
- **High Energy L1 Orbiting X-ray Spectrometer (HEL1OS):** It is designed to study solar flares in high-energy X-rays, with the acceleration and propagation of energetic electrons in the flare.
- **Solar Ultraviolet Imaging Telescope (SUIT):** It is a UV telescope to image the solar disk in the near ultraviolet wavelength range to study complex active regions of the sun (where the magnetic field is more concentrated) and **Coronal Mass Ejections.**
- **Aditya Solar wind Particle Experiment (ASPEX):** It comprises two subsystems:
 - ♦ **Solar Wind Ion Spectrometer (SWIS):** is a low energy spectrometer designed to measure the proton and alpha particles, the two primary ion components of solar winds.

♦ **Suprathermal and Energetic Particle Spectrometer (STEPS):**

is designed to measure high-energy ions of the solar wind. They allow scientists to study the properties of plasmas and their role in the transfer of mass, momentum, and energy from the sun to Earth.

- **MAGNETOMETER:** It will study the sun's low intensity interplanetary magnetic field, which is carried by solar winds.

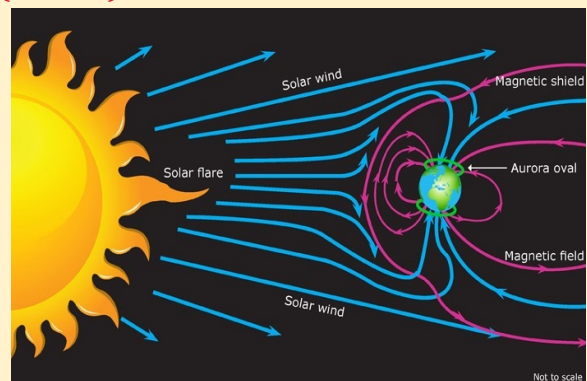
Key Features of PAPA

- PAPA contains **two sensors** that are equipped to measure the direction of arrival of solar wind particles:
 - ♦ **The Solar Wind Electron Energy Probe (SWEEP):** It measures the solar wind electron flux.
 - ♦ **The Solar Wind Ion Composition Analyser (SWICAR):** It measures ion flux and composition as a function of direction and energy.

Role in the Aditya-L1 Mission

- The Aditya-L1 mission was launched aboard the Polar Satellite Launch Vehicle-C57 mission on September 2, 2023.
- As Aditya traversed the 1.5 million km distance to L1, the PAPA payload was switched on for the first time on November 8.
- The high voltage (HV) commissioning of the payload and science data observations were started on December 11.

About Coronal Mass Ejections (CMEs)



- They are large expulsions of **plasma and magnetic fields (frozen in flux)** from the Sun's corona.
 - ♦ These are **stronger than the background solar wind** interplanetary magnetic field (IMF) strength.
- They can travel in **any random direction** and cut through solar winds, and they are **sometimes associated with flares** but **can occur independently**.
- CMEs are capable of driving the **Space Weather in near-Earth space**.
 - ♦ If CMEs are Earth-directed, they can cause severe implications.

Conclusion

- PAPA payload onboard the Aditya-L1 Mission remains healthy and the scientific data sent by it are of very good quality.
- The successful operation of PAPA is a testament to the capabilities of ISRO and its contribution to our understanding of the solar wind.

Source: TH

GERMANY LEGALIZES RECREATIONAL CANNABIS USE

Context:

- The **German parliament** voted recently to **legalise the possession and controlled cultivation of cannabis** starting in April.

About

- Under the new law, it will be possible to **obtain up to 25 grams of the drug per day for personal use** through regulated cannabis cultivation associations, as well as to have **up to three plants at home**.
 - ♦ But **possession and use of the drug will remain prohibited for anyone under 18**.
- The changes will leave Germany with some of the most liberal cannabis laws in Europe, **bringing it into line with Malta and Luxembourg, which**

legalised recreational use of the drug in 2021 and 2023 respectively.

- ♦ However, **Thailand** recently cracked down on its freewheeling drug market with a **ban on “recreational” use of Marijuana**.

Arguments Legalising Cannabis

- **Economic Benefits:** Legalizing marijuana can create new economic opportunities. It can generate tax revenue for the government through the sale and regulation of cannabis products.
- **Reduced Crime and Black Market:** Legalization can undermine the illegal market for marijuana by providing a legal and regulated avenue for obtaining the substance. This can potentially lead to a decrease in related criminal activities and violence associated with the illegal drug trade.
- **Medical Benefits:** Many argue that marijuana has medicinal properties and can be used to alleviate symptoms for various medical conditions, such as chronic pain, epilepsy, and nausea related to chemotherapy.
- **Less Health Risk when compared to Alcohol:** WHO study concluded that the public health risks from cannabis use were likely less severe than those posed by alcohol and tobacco, which are legal.

Arguments favoring Ban of Cannabis

- **Health Concerns:** Some experts have warned that cannabis use among young people **can affect the development of the central nervous system**, leading to an **increased risk of developing psychosis and schizophrenia**.
 - ♦ Sustained use has also been linked to **respiratory diseases and testicular cancer**.
- **Gateway to drug abuse:** Cannabis has undergone genetic modifications to significantly enhance its potency and addictive properties. Growers have intentionally reduced the levels of CBD (cannabidiol) while increasing the levels of THC (tetrahydrocannabinol). This

altered composition raises concerns about its potential to serve as a gateway drug, particularly for vulnerable individuals who may be prone to substance abuse.

Cannabis/Marijuana

- It is a generic term used to denote the **several psychoactive preparations of the plant *Cannabis sativa***.
- **The Mexican term ‘marijuana’** is frequently used in referring to cannabis leaves or other crude plant material in many countries.
- The major psychoactive constituent in cannabis is **tetrahydrocannabinol (THC)** and compounds structurally similar to THC are referred to as **cannabinoids**.

Legal Status in India

- **Narcotic Drugs and Psychotropic Substances Act (NDPS Act) of 1985:** Classifies cannabis as a Schedule I drug, meaning it has high potential for abuse.
 - ♦ **Possession and consumption:** Punishable with imprisonment for up to 6 months or a fine of ₹10,000 or both.
 - ♦ **Cultivation and sale:** More severe penalties, including imprisonment for up to 10 years and fines.
 - ♦ **Exclusions:** Bhang, which is made with the leaves of the plant, is not mentioned in the NDPS Act.
- **Recent changes:**
 - ♦ **2020:** CBD (cannabidiol) extracted from hemp plants legalized for medical purposes.
 - ♦ **2023:** Uttarakhand High Court ruled that the NDPS Act does not prohibit the cultivation of cannabis for research purposes.

Source: HT

SYNTHETIC ANTIBODY TO NEUTRALIZE SNAKE BITE TOXIN

Context

- Scientists at the Indian Institute of Science (IISc) in Bengaluru have de-

veloped a synthetic human antibody that can neutralize a potent neurotoxin produced by the Elapidae family of snakes.

About

- Snake Bites cause thousands of deaths every year, especially in India and sub-Saharan Africa.
- **The Elapidae family of snakes** are highly toxic and include the cobra, king cobra, krait and black mamba.

Current strategy for developing anti-venom

- It involves injecting snake venom into equines like **horses, ponies and mules, and collecting antibodies from their blood**.
- **Challenges:** These animals get exposed to various bacteria and viruses during their lifetime.
 - ♦ As a result, anti-venom also includes antibodies against microorganisms, which are therapeutically redundant.
 - ♦ Research has shown that less than **10%** of a vial of antivenom actually contains antibodies that are targeted towards snake venom toxins.

The synthetic antibody

- The antibody developed by the team targets a conserved region found in the core of a major toxin called the **three-finger toxin (3FTx) in the elapid venom**.
- Although different species of elapids produce different 3FTxs, a handful of regions in the protein are similar.
- The team zeroed in on one such conserved region – **a disulphide core**.
- They designed a large library of artificial antibodies from humans and tested the antibodies ability to bind to 3FTxs from various elapid snakes around the world.
 - ♦ They found one antibody that could bind strongly to various 3FTxs.

Source: TH

NEWS IN SHORT

SANT GURU RAVIDAS

Context:

- Recently, the Prime Minister of India unveiled a new statue of Sant Ravidas on the occasion of the 647th Birth Anniversary in Varanasi.



About the Sant Ravidas

- He, born in the **14th century**, was a prominent figure in the **Bhakti Movement**, a socio-religious revolution that took place in India between the **14th and 17th centuries**.
- He is revered for his contributions to societal reform and spiritual enlightenment.
- He was a **disciple of Sant Kabir** and the founder of the Ravidassia religion.
 - ♦ **Mirabai was his pupil.**

Life and Teachings:

- He was a great social reformer and messenger of peace, love, and brotherhood.
- He worked tirelessly **to remove caste and religion-based discrimination** and worked for the **upliftment of the downtrodden**.
- His life is a unique example of sacrifice and penance, and wrote many compositions on different social issues.
- He gave a very broad message of **'karma'** to society by coining in the popular Hindi saying **'Mann Changa to Kathauti Mein Ganga'**.

Legacy:

- The Sikh scripture, Guru Granth Sahib, contains forty-one of his devotional songs and poems.
- The Chief Architect of our Constitution, Dr. B.R. Ambedkar embodied the Constitutional principles around the values expressed by Guru Ravidasji.

Source: PIB

UMBRELLA SCHEME ON "SAFETY OF WOMEN"

Context:

- The Union Cabinet recently approved the **continuation of implementation of the Umbrella Scheme on 'Safety of Women'** during the period from **2021-22 to 2025-26**.

About Umbrella Scheme

- Nodal Ministry:** Ministry of Home Affairs
- Objective:** Strengthening mechanisms in States/Union Territories for ensuring timely intervention and investigation in case of crime against women and higher efficiency in investigation and crime prevention in such matters.
- Projects Covered:** 112 Emergency Response Support System (ERSS) 2.0;
 - ♦ Upgradation of Central Forensic Sciences laboratories, including setting up of National Forensic Data Centre;
 - ♦ Strengthening of DNA Analysis, Cyber Forensic capacities in State Forensic Science Laboratories (FSLs);
 - ♦ Cyber Crime Prevention against Women and Children;
 - ♦ Capacity building and training of investigators and prosecutors in handling sexual assault cases against women and children; and
 - ♦ Women Help Desk & Anti-human Trafficking Units.

Source: PIB

CALLING NAME PRESENTATION (CNAP)

In News

- TRAI releases Recommendations on 'Introduction of **Calling Name Presentation (CNAP)** Service in Indian Telecommunication Network'.

Calling Name Presentation (CNAP)

- It will allow users to know the identity of the person calling them.
- The basic idea is that if people are aware of the person who is calling them, they can make an informed choice about those calls.
- At the same time, such a feature could potentially help in curbing harassment and other spam calls.
- Currently, there are some applications which offer a similar service, for instance, Truecaller. However, all of them are third-party apps and depend on crowd-sourced data.

The salient features of the recent Recommendations

- Calling Name Presentation (CNAP) Supplementary Service should be introduced in the Indian telecommunication network.
- Calling Line Identification (CLI) should be redefined as the identity of the calling/originating subscriber in terms of telephone number assigned.

Source:ET

FIRST PRIVATE SPACECRAFT LANDING ON MOON

Context

- The Odysseus lunar lander, has become the first US-made spacecraft to touch down on the moon in 50 years.

About

- Spacecraft Odysseus built and flown by Texas-based company Intuitive Machines landed near the **south pole of the moon**.
- It is also the first commercial spacecraft to make a touchdown on the moon.
- Odysseus is the first craft launched from the US to land on the moon's surface since **Apollo 17 in 1972**.

Significance

- The lunar lander is designed to evaluate the environment at the moon's south pole as NASA prepares to send a crewed mission in 2026 with **Artemis III**.
- The mission is expected to pave the way under NASA's Commercial Lunar Payload Services (CLPS) program, designed to deliver instruments and hardware to the moon at lower costs.

Source: IE