

MAY CURRENT AFFAIRS

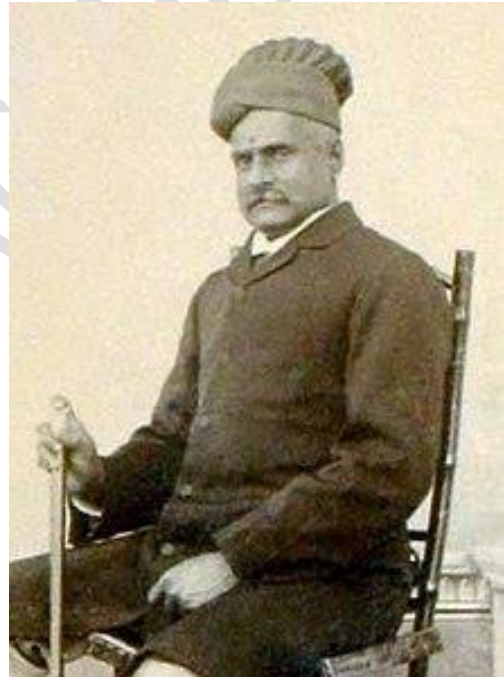
RAJA RAVI VARMA

Why in News?

The **first true copy of the painting Indulekha by Raja Ravi Varma will be unveiled** at the Kilimanoor Palace, Kerala **on his 176th birth anniversary**.

About Raja Ravi Varma:

- Raja Ravi Varma (29 April 1848 – 2 October 1906) was **an Indian painter and artist**.
- He is considered one of the greatest painters in the history of Indian art.
- He was **born as Ravi Varma Koil Thampuran of Kilimanoor palace**, in the erstwhile princely state of Travancore (Thiruvithankur) **in Kerala**.
- He was **part of the royal family** of erstwhile Parappanad, Malappuram district.
- His **works are one of the best examples of the fusion of European academic art with a purely Indian sensibility and iconography**.
- Before Raja Ravi Varma's paintings, the paintings of Indian artists were greatly influenced by the Persian and Mughal schools.
- **Varma was the first Indian to use Western techniques of perspective and composition** and to adapt them to Indian subjects, styles and themes.
- Especially, **he was notable for making affordable lithographs of his paintings available to the public**, which greatly enhanced his reach and influence as a painter and public figure.
- **His lithographs increased the involvement of common people with fine arts** and defined artistic tastes among the common people.



- Furthermore, his religious depictions of Hindu deities and works from Indian epic poetry and Puranas have received profound acclaim.
- His **most famous works** include **Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair and Shantanu and Matsyagandha, Woman Holding a Fruit, and Hamsa Damayanti.**

THROMBOCYTOPENIA SYNDROME

Why in News?

Global pharmaceutical giant AstraZeneca has said that its AZD1222 vaccine against Covid-19, which was made under licence in India as Covishield, could cause low platelet counts and formation of blood clots in “very rare” cases.

About Thrombocytopenia Syndrome:

- Thrombosis with thrombocytopenia syndrome (TTS), also known as vaccine-induced immune thrombotic thrombocytopenia (VITT), is a **rare condition characterized by the presence of blood clots (thrombosis) along with a low platelet count (thrombocytopenia).**
- Thrombosis is **the formation of a blood clot**, which can reduce normal blood flow in an affected blood vessel.
- Global pharmaceutical giant AstraZeneca has said that its AZD1222 vaccine against Covid-19, which was made under licence in India as Covishield, could cause low platelet counts and formation of blood clots in “very rare” cases.
- TTS was a **rare syndrome reported in people who received a Covid-19 adenovirus vector-based vaccine.**
- The incidence of TTS has been marginally higher among individuals under 60 years of age.



- **TTS can be seen in various body regions**, including the brain, the abdomen, the lungs, limb veins and arteries.
- **A range of symptoms are associated with TTS**, including breathlessness, pain in the chest or limbs, pinhead-size red spots or bruising of the skin in an area beyond the injection site, headaches, numbness in body parts, etc.
- TTS may result in restricted blood flow due to clot formation.
- Diagnosis of TTS involves a combination of blood tests and imaging studies, such as CT scans.
- Treatment for TTS is typically comprised of the following-
 - Anticoagulant medications to prevent further clotting.
 - Intravenous immunoglobulin (IVIG) which involves infusing a blood product containing antibodies
 - High-dose prednisone, which is a form of steroid medication.

KUTCH AJRAKH

Why in News?

The Controller General of Patents, Designs, and Trademarks (CGPDTM) has bestowed the **Geographical Indication (GI) certificate upon the traditional artisans of 'Kutch Ajrakh,'** hailing from the vibrant region of Kutch in Gujarat.

About Kutch Ajrakh:

- Ajrakh, a time-honored **textile craft**, holds deep roots in the cultural tapestry of **Gujarat, particularly in the regions of Sindh, Barmer, and Kutch**, where its legacy spans millennia.
- The art of Ajrakh entails a **meticulous process of hand-block printing on treated cotton cloth**, culminating in intricate designs infused with rich symbolism and



history.

- The name 'Ajrak' finds its roots in 'Azrak', which denotes Indigo.
- Indigo is widely used as a potent dye to produce a blue hue.
- Ajrakh prints have **traditionally consisted of three colors** and use natural vegetable and mineral colours are used in this printing. The three colours are:
 - **Blue**– Symbolizing the sky
 - **Red**– Symbolizing earth and fire
 - **White**– Symbolizing the stars
- The villages of Dhamadka and Ajrakhpur in Kutch stand as bastions of Ajrakh tradition, where artisans continue to practice the age-old techniques passed down through generations.
- Ajrakhpur, in particular, holds historical significance as the epicenter of Ajrakh work in Gujarat, with its roots tracing back 400 years when Sind Muslims introduced the craft to the region.
- Over the centuries, the village has evolved into a hub of creativity, where artisans blend tradition with innovation to produce exquisite Ajrakh textiles that showcase the region's vibrant cultural heritage.
- **Nomadic pastoralist and agricultural communities like the Rabaris, Maldharis, and Ahir's are the prominent users of the products derived from these artform.** They wear Ajrakh printed cloth as turbans, lungis, or stoles.
- Kutch Ajrakh provides a platform for artisans to showcase their craftsmanship on a global stage.
- **The award of GI tag to Kutch Ajrakh will promote sustainable livelihoods within the community of weavers** belonging to this region.

WORLD PRESS FREEDOM INDEX 2024

Why in News?

India is ranked 159 out of the 180 nations in the World Press Freedom Index 2024.

About World Press Freedom Index:

- The World Press Freedom Index (WPI) is **an annual ranking of countries compiled and published by Reporters Without Borders (RSF)** since 2002 based

upon the organization's own assessment of the countries' press freedom records in the previous year.

- It intends to reflect the degree of freedom that journalists, news organizations, and netizens have in each country, and the efforts made by authorities to respect this freedom.
- RSF evaluates countries based on various indicators related to press freedom. These indicators include-
 1. media independence
 2. legal framework
 3. safety of journalists
- The press freedom questionnaire encompasses five key categories: political context, legal framework, economic context, sociocultural context, and security.
- In the 2024 report **Norway, Denmark and Sweden maintain 1st, 2nd and 3rd spots respectively.**
- Eritrea was at the bottom of the list, with Syria just ahead of it.
- India's position has seen a slight improvement moving from 161 in 2023 to 159 among 180 countries in 2024.
- Despite this upward shift in ranking, India's score witnessed a decline, dropping from 36.62 to 31.28 and scores decreased across all categories except the security indicator.
- The global trend shows a decline in press freedom, with an average drop of 7.6 points worldwide, accompanied by an increase in political repression of journalists and media.
- Press freedom remains robust primarily in European Union countries, which recently implemented their first media freedom law (EMFA). In contrast, the Maghreb and Middle East regions face the most severe government-imposed press restrictions.



- Bhutan, Hong Kong, and Afghanistan have seen significant declines in press freedom since 2019 whereas Central African Republic, Timor-Leste, and Montenegro have shown notable improvements.

ELECTION RIGHTS OF PRISONERS

Why in News?

Accused persons in prison can contest polls but are barred from voting. The legal status distinguishes between the right to vote and the right to be elected.

While they can seek election until convicted, they are barred from voting, as per the Representation of People Act, unless released on bail or acquitted.

RIGHT TO VOTE	RIGHT TO BE ELECTED
Statutory right, not fundamental	Statutory right, not fundamental
Can be regulated by Parliament	Can be regulated by Parliament
Citizens exercise the right to choose. However, Those confined in prison cannot vote (Section 62(5) of the RPA, 1951), under sentence of imprisonment, transportation, or in lawful police custody.	Citizens exercise the right to stand for election. However, Convicted individuals sentenced to 2 years imprisonment cannot contest elections (Section 8(3) of the RPA, 1951)
Preventive detainees have the right to vote (Section 62(5) of the RPA, 1951 and Rule 18 of Conduct of Elections Rules 1961)	Even if on bail, convicted persons cannot contest.
Allows citizens to participate in elections	Allows citizens to be candidates in elections.
Subject to statutory limitations	Subject to statutory limitations
Can be revoked or restricted by law	Can be revoked and restricted by law

Ensures representation in governance	Enables individuals to represent constituents
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NEPAL NEW CURRENCY

Why in News?

- Nepal has recently announced the **printing of a new Rs 100 currency note featuring a map that includes the Indian territories of Lipulekh, Limpiyadhura, and Kalapani.**
- The cabinet approved to re-design the banknote of Rs 100 and replace the old map printed in the background of the bank note during the cabinet meetings.
- **Nepal shares a border of over 1,850 km with five Indian states - Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.**
- **Kalapani is the largest territorial dispute between Nepal and India** and is a tri-junction between India, Nepal and Tibet (China).

About:

- Under the **Treaty of Sugauli (1816)** signed between British East India Company and Nepal, **the Kali River was marked as Nepal's western boundary with India.**
- It, however, **made no mention of ridgeline** and the subsequent maps by the British surveyors showed the source of the Kali River at different places.
- This **discrepancy has led to the boundary disputes between India and Nepal.**
- **Nepal considers the river which flows to the west of Kalapani as the main River Kali**, originating at either Limpiyadhura or the nearby Lipulekh pass. Hence, justifying the area as inherent part of Nepal.



- **India, however, argues that River Kali originates from a smaller rivulet named Pankhagad**, lying on the southern portion of Kalapani and the subsequent ridge on the eastern part of this area as true border.
- Officially, Nepal brought the issue of Kalapani before India for the first time in 1998.
- Earlier in 2020, Defence Minister of India Shri Rajnath Singh had inaugurated a new link road from India to China to shorten the travel time for pilgrims to Kailash Mansarovar via Lipulekh pass.
- The road starts from Dharchula in Uttarakhand to Lipulekh pass.
- **India's stand on the dispute: All these three territories belong to India** and termed Nepal's constitutional amendment as unilateral act, artificial enlargement and untenable.
- Nepal had protested strongly against this move by India and claimed that it is a breach of agreement reached between the Prime Ministers of India and Nepal in 2014 to work out on the outstanding boundary issues on Kalapani and Susta (West Champaran, Bihar).
- In response, a Constitutional Amendment Bill was passed by Nepal's parliament to legitimize the alteration to the country's map with the addition of Kalapani, Lipulekh and Limpiyadhura.
- The passage of the Bill and the new map led to a temporary breakdown of communication between the two countries.
- **India rejected the updated map of Nepal** stating that the map is not based on historical facts and evidence.
- The move was described by the Ministry of External Affairs as "artificial", "unilateral" and "unacceptable". India had also asked Nepal to return to dialogue.

HOPEN ISLAND

Why in News?

The **first case of a walrus dying from bird flu has been detected on Hopen Island** in the Norwegian archipelago of Svalbard.

About Hopen Island:

- **Hopen is an island in the southeastern part of the Svalbard archipelago (Norway)** and part of the Southeast Svalbard Nature Reserve.
- **Hopen was discovered in 1596** by Jan Cornelisz Rijp during the third expedition by Willem Barentsz, trying to find the Northeast Passage.
- The **island is situated** in the southern part of the archipelago, **between the Barents Sea and the Greenland Sea.**
- It is **mostly covered by rocks and continuous permafrost**, with a very narrow beach from which the landscape rises sharply.
- The island's landscape is mainly made up of low-lying tundra, rocky outcrops, and coastal cliffs.
- In the north of the island there are steep cliffs with horizontal shelves which are ideal for breeding seabirds, including the globally vulnerable Atlantic puffin.
- Fauna: There **are huge seabird colonies** on steep cliffs with Brunich's Guillemots, Kittywakes, Fulmars etc.
- The numbers of breeding birds here make Hopen one of the most important seabird islands of the Barents Sea.
- The **island is home to a significant number of polar bears**, especially during winter when the island is surrounded by sea ice.
- The **sub-population of Ursus maritimus found here is genetically distinct** and associated with the Barents Sea region.
- The island is breeding ground for black-legged kittiwakes, thick-billed guillemots, and black guillemots.



About Walrus:

- The walrus is a **large pinniped marine mammal** with discontinuous distribution about the North Pole in the Arctic Ocean and subarctic seas of the Northern Hemisphere.

- Scientific Name : **Odobenus rosmarus.**
- This species is **subdivided into two subspecies**: the Atlantic walrus (O. r. rosmarus), which lives in the Atlantic Ocean, and the Pacific walrus (O. r. divergens), which lives in the Pacific Ocean.
- Walruses are **relatively long-lived, social animals**, and are considered to be **a "keystone species" in the Arctic marine regions.**
- They are **related to seals and sea lions.**
- They are characterized by large size and distinctive tusks; skin covered with a thin layer of coarse hairs.
- They are **terrestrial and marine.** They can swim in the ocean and walk on land and sea ice.
- They are **primarily mollusks** and also consumes worms, snails, soft shell crabs, shrimp, and sea cucumbers.
- Arctic and sub-Arctic regions near the North Pole, including the Pacific, Atlantic, and Arctic Oceans.
- **They threatened by commercial hunting**, but today the biggest danger it faces is **climate change.**
- **IUCN Red List: Vulnerable**



HICKEY'S BENGAL GAZETTE

Why in News?

On **World Press Freedom Day**, the Indian Express featured the tale of India's inaugural newspaper, 'Hicky's Bengal Gazette'.

About Hicky's Bengal Gazette:

- Hicky's Bengal Gazette or the Original Calcutta General Advertiser was an English-language weekly newspaper published in Kolkata (then Calcutta), the capital of British India.
- It was the first newspaper printed in Asia, and was published for two years, between 1780 and 1782, before the East India Company seized the newspaper's types and printing press.
- It was founded by James Augustus Hicky, the newspaper was a strong critic of the administration of Governor General Warren Hastings.
- The newspaper was important for its provocative journalism and its fight for free expression in India.
- The idea of printing a newspaper in India had been floated twelve years earlier by the Dutch Adventurer William Bolts, but Hicky was the first to execute the concept.
- Hicky's Bengal Gazette was renowned for its sarcastic and provocative writing style.
- It advocated for the rights of the poor and opposed taxation without representation.
- Additionally, it took a strong stance against war and colonialism, frequently mocking the East India Company leadership for their expansionist and imperialist goals.
- Despite its reputation for gossip and salacious content, the Gazette also published articles critical of the British East India Company and advocated for infrastructure development and sanitation improvements.
- Hicky's newspaper was printed once a week on Saturday, and retailed for Rs 1.



- The **Gazette faced legal challenges**, including multiple libel lawsuits filed by prominent figures such as Governor General Warren Hastings in 1780s and missionary Johann Zacharias Kiernander.
- Hicky's bold stance against powerful figures, including scathing critiques of Hastings' expansion policies, led to his imprisonment and financial ruin due to legal fees and penalties.
- The **publication was ceased on 30 March 1782**.
- Despite its eventual closure due to legal pressure and financial constraints, **'Hicky's Bengal Gazette' left an indelible mark on Indian journalism**.
- Hicky's pioneering efforts laid the groundwork for the development of a vibrant media landscape in India, inspiring subsequent generations of journalists and press pioneers.
- The Gazette's brief but impactful existence demonstrated the power of the press in advocating for societal change and holding the powerful to account.

About World Press Freedom Day:

- The **United Nations General Assembly declared May 3 to be World Press Freedom Day**.
- It was observed to raise awareness of the importance of freedom of the press and remind governments of their duty to respect and uphold the right to freedom of expression enshrined under Article 19 of the 1948 Universal Declaration of Human Rights and marking the anniversary of the Windhoek Declaration, a statement of free press principles put together by African newspaper journalists in Windhoek in 1991.
- This **occasion celebrates the fundamental principles of press freedom and is an opportunity to evaluate press freedom worldwide**, to defend the media from attacks on their independence, and to pay tribute to journalists who have lost their lives in the exercise of their profession.



- World Press Freedom Day **was proclaimed by the UN General Assembly in 1993** following a Recommendation adopted at the 26th Session of UNESCO's General Conference in 1991.
- The Windhoek Declaration is a benchmark for ensuring press freedom around the world.
- Theme of World Press Freedom Day 2024: **'A Press for the Planet: Journalism in the Face of the Environmental Crisis'**.
- In 2024, World Press Freedom Day is dedicated to the importance of journalism and freedom of expression in the context of the current global environmental crisis.
- To achieve sustainable development, journalists must report accurately, timely, and comprehensively on environmental issues and their consequences, as well as on possible solutions.

RIGHT TO PEACEFUL DEATH

Why in News?

The article draws the comparison in end-of-life care practices in India and Western countries.

It calls for a rational system to ensure peaceful deaths and highlights the Right to Peaceful Death.

About Right To Peaceful Death:

- The Right to Peaceful Death **refers to the right of individuals to pass away with dignity and without unnecessary suffering.**
- In Western countries, more individuals are documenting advanced medical directives, expressing their preferences for end-of-life care.
- Patients who are terminally ill are allowed to die naturally by removing life support if the chance of recovery to a reasonable quality of life is low.
- Whereas in India, about 70% of patients with incurable critical illnesses end up dying while hooked up to machines in ICUs.

- In most situations, there is no family member around the patients and families have to deal with big hospital bills.
- This **right to peaceful death is not explicitly mentioned in the Indian Constitution.**
- However, the **Supreme Court of India has recognized the right to die with dignity as a fundamental aspect of the right to life under Article 21.**
- This recognition came in the landmark case of **Common Cause (A Regd. Society) v. Union of India (2018)**, where the court upheld the legality of passive euthanasia and the right to make advance directives for medical treatment.

BATAGAY CRATER

Why in News?

The "gateway to the underworld" in Siberia (Russia) officially known as Batagay (or Batagaika), is an enormous crater that **has been rapidly growing due to the effects of permafrost thaw.**

About Batagay Crater:

- The Batagay Crater, also known as the "gateway to the underworld," is located in Russia's Far East.
- It is **formed by melting permafrost** dating back to the Quaternary Ice Age.
- It **began to form in the 1960s** when surrounding forest clearance triggered permafrost thaw, causing the land to sink.
- However, **thawing permafrost poses environmental risks**, as the release of organic carbon into the atmosphere could exacerbate global warming.



- It is expanding at an alarming rate, widening by about 660 feet between 2014 and 2023. This equates to approximately 35 million cubic feet of material being lost each year due to melting.
- The **growth of the crater is mainly due to permafrost thawing**, a consequence of rising temperatures in the Arctic and sub-Arctic regions.
- This thawing exposes ancient layers of permafrost that have remained frozen for hundreds of thousands of years.
- Despite variations in climate and environmental conditions, **the rate of melting at Batagay has remained relatively consistent over the past decade.**
- Most of the melting occurs along specific edges of the crater, contributing to its expansion.
- The ongoing expansion highlights the urgent need for understanding and mitigating the impacts of climate change in vulnerable regions.
- Rapid permafrost thaw can lead to land subsidence, changes in hydrology, and the release of greenhouse gases previously trapped in the frozen ground.

About Permafrost:

- Permafrost is **permanently frozen ground that remains below the freezing point of water for two or more consecutive years.**
- It is **typically found in polar regions**, such as the Arctic and Antarctic, as well as in high-altitude mountainous areas
- These permanently frozen grounds are most common in regions with high mountains and in Earth's higher latitudes—near the North and South Poles.
- It **covers large regions of the Earth.** Almost a quarter of the land area in the Northern Hemisphere has permafrost underneath.

HAGUE CONVENTION

Why in News?

UNESCO recently celebrated **70th anniversary of adoption of Convention for the Protection of Cultural Property** in the Event of Armed Conflict.

About:

- The Convention is the **first legal framework solely dedicated to safeguarding movable and immovable heritage.**
- It shields cultural property during both peace and conflict.
- With **135 member states, including India,** the Convention and its 1954 and 1999 Protocols **aim to protect cultural treasures,** with the latter introducing the concept of Enhanced Protection for Cultural Properties.



OLEANDER'S FLOWER

Why in News?

Two temple boards in Kerala have prohibited the use of oleander flowers in offerings. This decision follows the tragic death of a 24-year-old woman who accidentally consumed oleander leaves.

About Oleander's Flower:

- Nerium oleander, **commonly known as oleander or rosebay,** is a shrub or small tree cultivated worldwide in temperate and subtropical areas as an ornamental and landscaping plant.
- It is the **only species currently classified in the genus Nerium,** belonging to subfamily Apocynoideae of the dogbane family Apocynaceae.
- **In Kerala, locally known as arali and kanaveeram.**



- It is a globally cultivated plant found in tropical, subtropical, and temperate regions.
- **Nerium grows to 2–6 metres (7–20 feet) tall.**
- It is most commonly grown in its natural shrub form, but can be trained into a small tree with a single trunk.
- It is **tolerant to both drought and inundation, but not to prolonged frost.**
- It is frequently used for ornamental and landscaping purposes and also used for medicinal purposes.
- It is grown along highways and beaches, serving as natural green fencing. Different varieties of oleander exist, each with flowers of varying colours.
- It is **used in treatment of vrana (infected wounds), kusta (skin diseases including leprosy), krimi (microbes and parasites), kandu (itching).**
- Despite medicinal use, **oleander is toxic.**
- This is **due to the properties of cardiac glycosides** (a type of chemical) including oleandrin, folinerin, and digitoxigenin, which are present in all parts of the plant.
 - Cardiac glycosides have therapeutic value in heart conditions but **have a narrow therapeutic window, leading to frequent overdose and toxicity.**
 - Toxic effects include nausea, diarrhoea, vomiting, confusion, irregular heartbeat, and, in severe cases, death.
 - Ingestion or inhalation of smoke from burning oleander can also be intoxicating.
 - Symptoms typically last for 1 to 3 days and may necessitate hospitalization.
- It **contains toxic compounds throughout its parts, including leaves and flowers.**
- They are fast-growing evergreen shrubs or small trees native to Europe and Asia.
- Oleander is tolerant to heat, drought, wind, air pollution, salt, and poor soil.
- **IUCN status: Least Concern**

FOOT ROT DISEASE

Why in News?

Ludhiana's Punjab Agricultural University has come up with **biocontrol agent Trichoderma asperellum to combat 'foot rot' disease**, prevalent in Basmati rice varieties.

About:

- The Punjab Agricultural University (PAU), Ludhiana, has developed biocontrol agent *Trichoderma asperellum* (2% WP), and registered it with the Central Insecticides Board and Registration Committee (CIBRC).
- The **biocontrol agent will help Punjab farmers manage the deadly ‘foot rot’ or ‘bakanae’ disease** that plagues the crops of Basmati rice, varieties of fragrant rice that are popular world over.

About Foot Rot Disease:

- Foot Rot is a **fungal disease that affects Basmati rice crops particularly at the seedling stage.** It might also cause infection after transplantation in case infected seedlings are transplanted.
- It is **both soil and seed-borne.**
- It spreads through the plant’s roots and colonizes the stem base.
- It is **caused by the fungus *Fusarium verticillioides***, a soil-seed borne pathogen which spreads the infection through the root of the plant, and eventually leads to the colonisation of the stem base.
- **Infected seedlings exhibit distinct symptoms**, starting with a pale yellowing of leaves, followed by elongation, drying up, and eventual death.
- Treatment Methods:
 - Seedlings are treated with *Trichoderma harzianum* before sowing and transplantation to prevent fungal growth.
 - Seeds are also treated with fungicides such as Sprint 75 WS (a combination of carbendazim and mancozeb) before sowing. However, these chemical treatments can negatively affect the soil and pose toxicity risks to consumers.



- The fungicide carbendazim is already banned in Punjab because it leaves behind high residues.
- There's a significant emphasis on using disease-free seeds and promptly destroying any infected seedlings to prevent further spread.
- **Timely nursery management is crucial**, with experts recommending seed sowing in the first fortnight of June and transplantation in July to avoid the disease's peak during high-temperature months like May.

ORANGUTAN DIPLOMACY

Why in News?

- **Malaysia plans to gift orangutans to trade partners** who purchase its palm oil.
- It aims to use the endangered species as diplomatic gifts to trade partners who buy the country's palm oil, hoping to improve its image amid accusations of unsustainability.
- It is inspired by China's successful "panda diplomacy," Malaysia sees orangutans as a way to signal commitment to certain values.

About Orangutan:

- Orangutans are **great apes native to the rainforests of Indonesia and Malaysia**.
- They are now found only in parts of Borneo and Sumatra, but during the Pleistocene they ranged throughout Southeast Asia and South China.
- Classified in the genus Pongo, orangutans were originally considered to be one species.
- From 1996, they were divided into two species: the **Bornean orangutan** (*P. pygmaeus*, with three subspecies) and the **Sumatran orangutan** (*P. abelii*).
- A third species, the **Tapanuli orangutan** (*P.*



tapanuliensis), was identified definitively in 2017.

- Orangutans **spend most of their time in trees**.
- They have proportionally long arms and short legs, and have reddish-brown hair covering their bodies.
- Orangutans are the **most solitary of the great apes**: social bonds occur primarily between mothers and their dependent offspring.
- **Fruit is the most important component of an orangutan's diet**, but they will also eat vegetation, bark, honey, insects and bird eggs.
- **They can live over 30 years**, both in the wild and in captivity.
- Orangutans are **among the most intelligent primates**.
- They **prefer tropical forests, particularly in river valleys and floodplains**.
- With an extremely low reproductive rate, their populations are highly vulnerable.
- **All three species** are classified as **Critically Endangered on the IUCN Red List**.
- **Threats** to wild orangutan populations include poaching (for bushmeat and retaliation for consuming crops), habitat destruction and deforestation (for palm oil cultivation and logging), and the illegal pet trade.
- Several conservation and rehabilitation organisations are dedicated to the survival of orangutans in the wild.

HIGH ENERGY PHOTON SOURCE

Why in News?

- **China inaugurated the High Energy Photon Source (HEPS)**, the first fourth-generation synchrotron light source in Asia.
- This advanced facility will produce some of the world's brightest X-rays, significantly enhancing research capabilities across various scientific fields.

About HEPS: HIGH ENERGY PHOTON SOURCE

- HEPS (High Energy Photon Source) is **recognized as the brightest synchrotron X-ray source in Asia**.

- **Synchrotrons use electricity to generate intense beams of light, over a million times brighter than the sun.**
- They **utilize a multi-bend achromat lattice**, a complex array of magnets, **to produce narrower and brighter X-ray beams.**
- The HEPS is a **next-generation synchrotron** that generates a specific type of synchrotron light source.
- **HEPS operates by accelerating electrons to nearly the speed of light and making them travel in a circular path.**
- As these high-speed electrons change direction under the influence of magnetic fields, they emit Synchrotron Radiation, which includes X-rays. These X-rays are then harnessed for various scientific applications.
- India previously developed its own synchrotron, **Indus-1.**
- India is an associate member of the European Synchrotron Radiation Facility (ESRF) in Grenoble, France.



Features of HEPS (High Energy Photon Source):

- HEPS **can accelerate electrons up to energies of 6 gigaelectron volts**, within its storage ring, with 1.36 Km of circumference.
- It **generates X-rays that are ten times brighter than those produced by existing synchrotron facilities**, allowing for unprecedented clarity in imaging and analysis.
- It **offers extremely precise imaging capabilities**, enabling scientists to observe and manipulate materials at the atomic and molecular levels.
- It will **reduce the time taken by experiments**, from milliseconds to hundreds of nanoseconds.

Applications of HEPS (High Energy Photon Source):

- HEPS enables the detailed study of materials' structure and properties, which is crucial for developing new materials with enhanced performance.

- HEPS will support the development of nanotechnology by providing insights into the behavior of nanomaterials and their applications.
- The facility allows for the examination of biological molecules and complex protein structures, aiding in understanding diseases and developing new treatments.

TAK-003

Why in News?

In May, 2024, a **new vaccine, Tak-003, for dengue** received prequalification from the World Health Organization (WHO).

About Tak-003:

- Tak-003 is **developed by Japan's pharma company Takeda**, is a **live-attenuated vaccine** containing weakened versions of the four serotypes of the virus that cause dengue.
- It is the **second dengue vaccine to receive WHO prequalification**, following the CYD-TDV vaccine.
- **WHO recommends the use of TAK-003 in children aged 6–16 years** in settings with high dengue burden and transmission intensity offering protection against all four types of dengue.
- Takeda's vaccine demonstrated 84% efficacy against hospitalization and 61% efficacy in symptom prevention.
- Qdenga becomes the second WHO-approved dengue immunization after Sanofi Pasteur's vaccine.
- WHO's first-approved vaccine found to increase severe dengue risk in previously uninfected individuals.
- Dengue, a leading cause of illness and death, can lead to severe complications including internal bleeding and organ failure.



- Recent dengue outbreaks in the America prompt emergency declarations and mass vaccinations, highlighting the urgent need for preventive measures.

About WHO Vaccine Prequalification:

- The WHO Vaccine Prequalification process, **established in 1987, ensures the quality of vaccines distributed by UN purchasing agencies.**
- Vaccines are evaluated based on relevant data, sample testing, and WHO inspection of manufacturing sites to be included in the list.
- However, inclusion in the list does not signify WHO's approval of vaccines and manufacturing sites, which falls under the authority of National Regulatory Authorities.
- **Prequalification enables procurement by UN agencies (including UNICEF) and the Pan American Health Organization (PAHO), thereby facilitating global access to vaccines.**
- The list of prequalified vaccines also includes those for other vector-borne diseases like malaria, yellow fever, Japanese encephalitis, and rabies.

WORLD WILDLIFE CRIME REPORT 2024


Why in News?

United Nations Office on Drugs and Crime (**UNODC**) released **World Wildlife Crime Report 2024.**

The report highlighted reduction in elephant ivory and rhino horn trafficking, but noted that wildlife trade remains a concern globally.

About:

- This report **provides insights into the illegal wildlife trade that occurred between 2015 and 2021.**
- UN report notes a solid decline in poaching, seizures, and market prices for elephant ivory and rhino horn over the past decade.

- Despite progress, wildlife trafficking continues globally, with seizures recorded in 162 countries involving thousands of protected species.
 - **Elephants, crocodiles, pangolins, and rosewood are among the most commonly seized species**, highlighting the diversity of wildlife targeted by traffickers.
- 
- Reasons include food, medicine, pet trade, and fashion products, with each category presenting unique trade dynamics.
 - **During 2015-2021, rhinoceroses and cedars were most impacted animal and plant species respectively.**
 - Largest numbers of seizures reported during 2015- 2021 involved corals, followed by crocodylians and elephants.
 - For seizures of animal species, there is gradual increase from 2015–2019 and then decline in 2020 and 2021.
 - For seizures of plant species, there is sharp increase in 2020 and 2021.
 - Wildlife crime – Taking, possession, trade or movement, consumption of wild animals and plants or their derivatives in contravention of any international, regional, or national legislation(s).
 - India sees a surge in wildlife seizures, driven by increased demand for exotic live animals as pets, facilitated by online platforms.
 - **Trafficking patterns evolve with educated individuals engaging in online trade, posing threats to ecosystems and local species.**
 - Beyond biodiversity degradation, the trade poses risks of extinction and invasiveness, threatening global habitats and ecosystems.
 - The **2024 World Wildlife Crime Report calls for the urgent need for concerted international efforts to combat illegal wildlife trade.**
 - By addressing corruption, enhancing cooperation, and adopting strategic interventions, stakeholders can work towards mitigating the devastating impacts of wildlife trafficking on biodiversity and ecosystems globally.

GLOBAL REPORT ON INTERNAL DISPLACEMENT 2024

Why in News?

Recently, **Global Report on Internal Displacement 2024 (GRID-2024)** was released by the Geneva-based Internal Displacement Monitoring Centre (IDMC).

About:

- The report is **published annually by the Geneva-based Internal Displacement Monitoring Centre (IDMC)**.
- It documents internal displacements caused by conflict, violence, and disasters.
- A report by the Internal Displacement Monitoring Centre (IDMC) reveals that **about 76 million people were internally displaced (IDPs) globally by the end of 2023, up from over 71 million in 2022**.
- **68.3 million people displaced by the end of the year, marking a 49% increase from 2022** due to conflict and violence, with Sudan, Syria, the Democratic Republic of the Congo, Colombia, and Yemen hosting nearly half.
- In South Asia, Manipur is a significant contributor.
- **At 9.1 million, Sudan has the highest number of IDPs recorded for a single country**.
- Most of the new displacement this year happened in Sudan, the Palestinian territories, and the Democratic Republic of Congo, accounting for almost two-thirds of all new displacement.
- **Displacements caused by disasters totaled 7.7 million by the end of 2023**. Earthquakes accounted for a quarter of these displacements.
- Significant disaster-related displacements were recorded across 148 countries and territories. Canada and New Zealand reported their highest figures ever.



- Although **there was a one-third reduction in weather-related displacements in 2023 compared to 2022**, they still constituted 56% of all displacements, with 2023 being the third highest year for such displacements in the last decade.
- This decrease is attributed to the shift from La Nina to El Nino, with La Nina typically associated with more storms and floods, while El Nino often brings drier conditions and droughts.
- **South Asia, including India, reported its lowest internal displacements since 2018 with 3.7 million displacements**, of which 3.6 million were due to disasters.
- This reduction is linked to the onset of El Nino, which resulted in below-average rainfall during the monsoon and a weaker cyclone season. However, floods and storms continued to cause significant displacements.
- The 2022 report highlighted a 40% increase in disaster displacements from the previous year, predominantly due to weather-related events like floods and storms during the prolonged La Nina period.

About Internal Displacement Monitoring Centre (IDMC):

- The Internal Displacement Monitoring Centre or **IDMC is an international non-governmental organization established in 1998 by the Norwegian Refugee Council in Geneva.**
- It is the **leading source of information and analysis on internal displacement.**
- IDMC defines internal displacement as “the number of forced movements of people within the borders of their country recorded during (a) year.
- IDMC was set up in 1998 at the request of the international community to fill an important knowledge gap on the global scale and patterns of internal displacement.
- IDMC **plays a unique role as a global monitor and evidence-based advocate to influence policy and action** by governments, UN agencies, donors, international organisations and NGOs.



- IDMC's GRID is the official repository of data and analysis on internal displacement.
- It is focused on monitoring and providing information and analysis on the world's internally displaced persons (IDPs).

MURIA TRIBE

Why in News?

The Muria tribe in Godavari Valley preserves seeds using the eco-friendly 'deda' method, handed down by ancestors from Chhattisgarh, ensuring crop sustainability.

About Muria Tribe:

- The Muria are an indigenous Adivasi, scheduled tribe Dravidian community of the Bastar district of Chhattisgarh, India.
- They are a sub-group of the Gond tribe, primarily residing in Chhattisgarh, India.
- Traditionally, they are economically homogeneous and strive to work as a collective.
- They have an omnivorous diet, with liquor playing a key role in social gatherings.
- They are known for their involvement in the Muria Rebellion of Bastar in 1876, which was a revolt against Gopinath Kapardas, the diwan of Bastar.
- Murias have unique customs, including the practice of burying the dead in structures called "Gudi," where a stone is placed 6 to 7 feet high.
- Additionally, they have a social institution known as "Ghotul," where young boys and girls have the freedom to choose their own life partners.
- Muria tribal farmer practices the traditional 'deda' seed preservation method, handed down by his ancestors.



- Many Muria tribes migrated from Chhattisgarh to the Godavari Valley in Andhra Pradesh due to conflicts between left-wing extremists and central forces prior to 2012.
- The Muria **rely on forest produce, fruits, vegetables, rice, and traditional luxury foods**. Local liquor, such as Mahuva and Selfi, holds significance in social and ritual gatherings.
- They follow traditional folk practices, worshipping nature and village deities, akin to Sarnaism.
- Muria **families engage in small-scale farming, primarily for food security**. They cultivate pulses and maize on small holdings developed over the years in their settlements.
- Murias rarely sell their farm produce commercially, preferring to grow crops for their own consumption rather than engaging in large-scale commercial cultivation.

About The Deda Method

- The **Muria tribes follow a traditional seed preservation method called "deda,"** which they continue to practice despite displacement from their native regions in Chhattisgarh.
- This **method involves preserving seeds in leaves and packaging them almost airtight,** resembling boulders from a distance.
- The **seeds are woven with Siali leaves, locally known as "addakulu," to create a deda.**
- The **deda has multi-layer protection (three layers).**
- The first layer contains wood ash spread inside Siali leaves, followed by lemon leaves forming a casing over the ash. The seeds are then preserved inside the casing and sealed. This method ensures protection from pests and worms, allowing the stored seeds to remain viable for up to five years.



- Muria tribes **preserve seeds of pulses such as green gram, red gram, black gram, and beans using the deda method.**
- This eco-friendly technique involves storing seeds in leaves, packed nearly airtight to resemble boulders, providing multi-layer protection from pests and worms.
- **Each 'deda' supports up to 5kg of seeds and can preserve them for up to five years.**
- The method, used for pulses like green gram and red gram, ensures food security for Muria families settled in the Godavari valley, who migrated from Chhattisgarh due to conflict.

ICC ISSUES WARRANT AGAINST ISRAEL PM

Why in News?

- Recently, the International Criminal Court (ICC) prosecutor has requested arrest warrants against leaders of Hamas and the Prime Minister and Defence Minister of Israel for the war crimes in Palestine.
- **Israel is not a member of the ICC**, so even if the arrest warrants are issued, the concerned leaders do not face any immediate risk of prosecution. However, if the threat of arrest further deepens Israel's isolation will make it difficult for the Israeli leaders to travel abroad.
- **The ICC accepted "The State of Palestine" as a member in 2015.**

About ICC: International Criminal Court

- The International Criminal Court (ICC) is an **intergovernmental organization and international tribunal seated in The Hague, Netherlands.**
- It is the **first and only permanent international court with jurisdiction to prosecute individuals for the international crimes of genocide, crimes**



against humanity, war crimes and the crime of aggression.

- The ICC is **distinct from the International Court of Justice**, an organ of the United Nations that hears disputes between states.
- It was **established in 2002 pursuant to the multilateral Rome Statute**, the ICC is considered by its proponents to be a major step toward justice, and an innovation in international law and human rights.
- With 124 countries as States Parties to the Rome Statute, **India, US, China are notably not a member.**
- The ICC comprises 18 judges serving non-renewable 9-year terms and operates alongside, rather than replacing, national criminal justice systems, complementing their efforts.
- **Palestine became the 123rd member of the Rome Treaty on April 1, 2015.**
- Israel is not a Party to the Rome Statute.
- The **ICC's decisions are binding.**
- However, it relies on the cooperation of States for support, particularly for making arrests and transferring the arrested individuals to the ICC detention centre, for freezing assets, and enforcing sentences.

NAEGLERIO FOWLERI

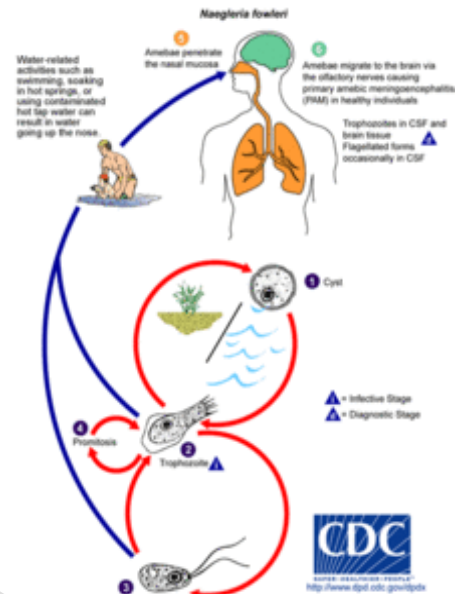
Why in News?

A five-year-old girl undergoing treatment for primary amoebic meningoencephalitis (PAM), a rare infection caused by *Naegleria fowleri* or “**brain-eating amoeba**”, died at the Government Medical College Hospital in Kozhikode.

About *Naegleria fowleri*:

- *Naegleria fowleri*, **also known as the brain-eating amoeba**, is a species of the genus *Naegleria*.
- It belongs to the phylum Percolozoa and is technically classified as an amoeboflagellate excavate, rather than a true amoeba.

- This free-living microorganism primarily feeds on bacteria but can become pathogenic in humans, causing an extremely rare, sudden, severe, and usually fatal brain infection known as naegleriasis or **primary amoebic meningoencephalitis (PAM)**.
- It is **typically found in warm freshwater bodies** such as lakes, rivers, hot springs, warm water discharge from industrial or power plants, geothermal well water, and poorly maintained swimming pools.
- The organism was named after Malcolm Fowler, an Australian pathologist at Adelaide Children's Hospital, who was the first author of the original series of case reports of PAM.
- It was **first discovered in Australia in 1965**, it is so small that it can only be seen with a microscope.
- The **amoeba enters the human body through the nose and then travels up to the brain** and it can cause a severe infection known as Primary Amoebic Meningoencephalitis (PAM).
- As **temperatures rise, its population tends to increase.**
- Only one species of Naegleria, *Naegleria fowleri*, infects people.
- So far, scientists haven't found any evidence of the spreading of *Naegleria fowleri* through water vapour or aerosol droplets.
- Due to its ability to infect and destroy brain tissue, *Naegleria fowleri* is **often referred to as the "brain-eating amoeba."**
- While infections caused by this organism are rare, they are almost always fatal.



PSYCHEDELIC DRUGS

Why in News?

Researchers are advocating for domestic clinical trials of psychedelic drugs, motivated by the increase in global trials and the low effectiveness of existing medications in treating mental health issues.

About Psychedelic Drugs:

- **Psychedelics are a subclass of hallucinogenic drugs** whose primary effect is to trigger non-ordinary mental states (known as psychedelic experiences or "trips") and a perceived "expansion of consciousness".
- Also referred to as classic hallucinogens or serotonergic hallucinogens, **the term psychedelic is sometimes used more broadly to include various types of hallucinogens**, such as those which are atypical or adjacent to psychedelia like salvia and MDMA, respectively.
- This category of drugs is a subset of psychotropic substances known for their ability to drastically change an individual's thoughts, perceptions, and can cause vivid hallucinations.
- **Psychedelics typically enhance serotonin**, a mood-stabilizing hormone, by binding to serotonin receptors on cell surfaces, triggering specific biochemical reactions.
- Categories of Psychedelics:
 - **Classical Psychedelics:** These compounds primarily cause hallucinations by activating the serotonin 5-HT receptor, which is prevalent throughout the human body, including in the gastrointestinal tract, platelets, and the nervous system. Examples include LSD (lysergic acid diethylamide), psilocybin, and DMT (N, N-Dimethyltryptamine).
 - **Non-Classical Psychedelics:** These substances interact with a variety of receptors. Notable examples are ketamine and MDMA (3,4-methylenedioxy-N-methamphetamine).
- **Research and Clinical Use: Five psychedelics—psilocybin, LSD, MDMA, ketamine, and DMT—are being extensively studied for treating mental health issues.**



- Many psychedelic drugs are illegal worldwide under the UN conventions, with occasional exceptions for religious use or research contexts.
- Despite these controls, recreational use of psychedelics is common.
- The **1971 United Nations' Convention on Psychotropic Substances regulates approximately 200 psychotropic substances** divided into four schedules, with Schedule I listing those with the highest potential for abuse. The convention does not specify the count, or the types of substances classified as psychedelics.

ARAB LEAGUE SUMMIT

Why in News

UN Secretary-General António Guterres, speaking at the Arab League Summit in Bahrain, called for a humanitarian ceasefire in Gaza, the release of all hostages, and unimpeded aid access.

About Arab League:

- The Arab League, also known as the League of Arab States (LAS), is a regional organization comprising Arab states in the Middle East and parts of Africa.
- It was formed in Cairo on 22 March 1945, initially with seven members: Egypt, Iraq, Transjordan, Lebanon, Saudi Arabia, Syria, and North Yemen, in response to concerns about postwar colonial divisions and strong opposition to the establishment of a Jewish state on Palestinian territory.
- Objective: To strengthen and coordinate the political, cultural, economic, and social programs of its members and to mediate disputes among them
- **Currently, the League has 22 members.** Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, the United Arab Emirates, and Yemen.



- **Headquarter: Cairo, Egypt.**
- **Official Language: Arabic.**
- The aim is to develop both national and international strategies and identify priorities for crime prevention.
- **Observer Status** is conferred to **Brazil, Eritrea, India, and Venezuela.**
- The highest body of the League is the Council, consisting of representatives from member states, usually foreign ministers, their representatives, or permanent delegates.
- **Decisions are made on a majority basis** but there is no mechanism to compel members to comply with resolutions.
- **Each member has one vote.** Decisions are binding only on those states that voted for them, with no enforcement mechanism for compliance.

INTERNATIONAL SOLAR ALLIANCE

Why in News?

Spain has officially become the 99th member of the International Solar Alliance (ISA) following Panama, by handing over the Instrument of Ratification.

About International Solar Alliance (ISA):

- The International Solar Alliance (ISA) is an alliance of more than **120 signatory countries**, most being sunshine countries, **which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn.**
- The primary objective of the alliance is to work for the efficient consumption of solar energy to reduce dependence on fossil fuels.
- **This initiative was first proposed by Indian Prime Minister Narendra Modi in a speech in November 2015 at Wembley Stadium (London HA9 0WS, United**



Kingdom), in which he referred countries as Suryaputra to sunshine ("Sons of the Sun")

- The alliance is a **treaty-based inter-governmental organization**.
- **Countries that do not fall within the Tropics can join the alliance and enjoy all benefits as other members, with the exception of voting rights.**
- The framework agreement of the International Solar Alliance opened for signatures in Marrakesh, Morocco, in November 2016, and 102 countries joined.
- **The ISA is headquartered in Haryana, India.**
- At present, 119 countries are signatories to the ISA Framework Agreement, 119th being the Malta, of which 98 countries have submitted the necessary instruments of ratification to become full members of the ISA.
- Spain has officially become the 99th member of the International Solar Alliance (ISA) following Panama, by handing over the Instrument of Ratification.
- **India and France launched the International Solar Alliance (ISA) during the Conference of the Parties (COP 21) in Paris** to promote solar energy and support the Paris Climate Agreement's goals.
- The International Solar Alliance (ISA) is a member-focused initiative aimed at boosting solar energy technology deployment to enhance energy access, security, and transition in member nations.

PRE-ECLAMPSIA

Why in News?

World Preeclampsia Day, observed annually on May 22nd, aims to raise crucial awareness about preeclampsia, a potentially life-threatening pregnancy complication.

About Pre-Eclampsia:

- Pre-eclampsia is a **hypertensive disorder of pregnancy** that leads to multiorgan dysfunction in the mother.
- It is **characterized by high blood pressure** and often a **significant amount of protein in the urine.**
- It usually occurs after the 20th week of pregnancy and can also develop postpartum.

- Other symptoms include swelling in the face, hands, and feet, severe headaches, vision changes, upper abdominal pain, and trouble breathing.
- **Preeclampsia can have severe complications for both the mother and the baby if not managed properly.**
- Studies show that pre-eclampsia significantly raises the risk of heart failure, coronary heart disease, stroke, and cardiovascular death in mothers.
- India accounts for nearly a quarter of the world's adverse pregnancy outcomes.
- **NFHS-5 statistics show perinatal mortality at 32 per 1,000 pregnancies and neonatal mortality at 25 per 1,000 live births.**
- Hypertensive disorders in pregnancy are a leading cause of maternal death.
- Challenges to cure Pre-eclampsia (PE):
 1. **Complex Screening Protocols:** Effective screening requires a combination of maternal history, demographics, color Doppler ultrasound, mean arterial pressure, and placental biomarkers, which may not be uniformly available or implemented.
 2. **Lack of Awareness:** Pregnant women may not be aware of the symptoms and risks associated with pre-eclampsia, leading to delayed presentation and diagnosis.
 3. **Limited Resources:** Not all healthcare facilities have access to advanced screening tools and technologies like color Doppler ultrasound and placental biomarker testing.
 4. **Complexity of the Disorder:** The systemic nature of pre-eclampsia, affecting multiple organs, complicates its management and requires a multidisciplinary approach.
 5. **Delayed Intervention:** Identifying high-risk pregnancies early is crucial, but delays in screening and diagnosis can lead to missed opportunities for timely intervention.
 6. **Pharmacological Challenges:** Ensuring timely pharmacological intervention, such as aspirin prophylaxis, requires adherence to established protocols, which may only sometimes be followed.



7. **Logistical Issues:** Implementing widespread screening and management protocols involves logistical challenges, including training healthcare providers and ensuring the availability of necessary equipment.
- The **Indian Radiological and Imaging Association's (IRIA) "Samrakshan" program aims to reduce pre-eclampsia from 8%-10% to 3% and fetal growth restriction from 25%-30% to 10% by the end of the decade.**
- The program focuses on spreading awareness, screening for pre-eclampsia and fetal growth restriction, and ensuring comprehensive care throughout pregnancy.

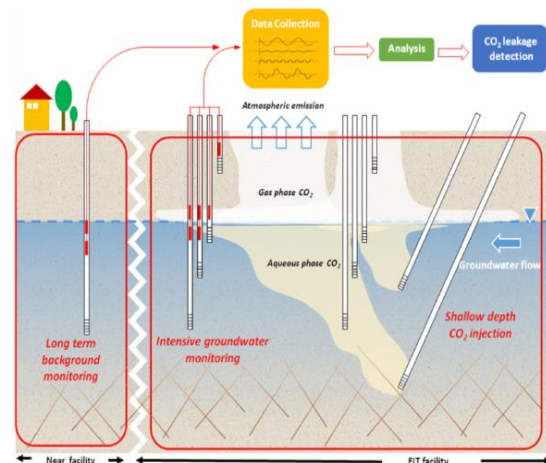
SAM (SHALLOW AQUIFER MANAGEMENT)

Why in News?

Telangana is implementing Shallow Aquifer Management (SAM) pilot models in Habsiguda and Sainikpuri to address groundwater depletion and flooding.

About SAM (Shallow Aquifer Management):

- Shallow Aquifer Management is a **sustainable urban water management technique** and addresses persistent issues of groundwater depletion, drying up of borewells and check quick flooding of city streets.
- An **aquifer is an underground layer of permeable rock, soil, or sand that holds water and allows it to flow freely.**
- It acts as a natural reservoir, storing groundwater that can be accessed through wells for various purposes like drinking water supply, irrigation, and industrial use.
- The project's concept is to drill shallow water injection borewells to a depth of 100-120 feet and pump out water in the shallow aquifers.
- This is done so that the layers underneath get recharged whenever there is rainfall, while collecting water from the surrounding watershed and channelling it through recharge pits.



- Consequently, underground water layers are replenished, leading to a rise in the water table.
- **It is part of Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme of the Ministry of Housing and Urban Affairs.**
- National Institute of Urban Affairs is the nodal implementing agency.
- In 2022, the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) initiated a SAM pilot across 10 cities in nine states: Bengaluru (Karnataka), Chennai (Tamil Nadu), Dhanbad (Jharkhand), Gwalior (Madhya Pradesh), Hyderabad (Telangana), Jaipur (Rajasthan), Kolkata (West Bengal), Pune and Thane (Maharashtra) and Rajkot (Gujarat).

2024 INTERNATIONAL BOOKER PRIZE

Why in News?

“Kairos” written by Jenny Erpenbeck (translated by Michael Hofmann) has won the 2024 International Booker Prize.

It was set against the backdrop of the Berlin Wall’s fall, it explores personal and national transformations.

About International Booker Prize:

- The International Booker Prize (formerly known as the Man Booker International Prize) is an **international literary award hosted in the United Kingdom.**
- The introduction of the International Prize to complement the Man Booker Prize, as the Booker Prize was then known, was announced in June 2004.
- It is a **prestigious literary award that recognizes the best translated work of fiction from around the world.**



- It was **established in 2005**.
- The prize aims to encourage more publishing and reading of quality fiction from all over the globe, and to promote the work of translators who bring these stories to an English-speaking audience.
- International Booker Prize is **awarded annually for the finest single work of fiction from around the world** which has been translated into English and published in the UK or Ireland.
- This prize aims to encourage more reading of quality fiction from all over the world and has already had an impact on those statistics in the UK.
- The **prize celebrates the vital work of translators, with the £50,000 prize money divided equally between the author and the translator**, highlighting the essential role of translation in bringing diverse voices to the English-speaking world.
- In addition, the shortlisted authors and translators each receive £2,500.

ZERO DEBRIS CHARTER

Why in News?

- Recently, **twelve nations signed the Zero Debris Charter at the ESA/EU Space Council**, committing to making space activities debris-neutral by 2030.
- The signatories include Austria, Belgium, Cyprus, Estonia, Germany, Lithuania, Poland, Portugal, Romania, Slovakia, Sweden, and the United Kingdom, alongside the European Space Agency (ESA) as an International Organisation.

About Zero Debris Charter:

- The Zero Debris Charter is an **initiative launched by the European Space Agency (ESA)** during the ESA Space Summit in Seville in November 2023.
- It is **non-legally binding**.
- The Zero Debris Charter **aims to achieve debris-neutrality in space by 2030**.
- This charter formalizes their commitment to the long-term sustainability of human activities in Earth's orbit.
- Objectives:
 - The Charter aims to eliminate the creation of new space debris by 2030.

- The charter stipulates that the probability of a mission generating space debris should be less than 1 in 1,000 for each object involved.



- The charter also sets a target of 99% success rate for post-mission disposal strategies, including the use of external means if necessary.

- The Charter is part of ESA's comprehensive Zero Debris approach, which involves significant internal reforms and the development of debris mitigation technologies under its Space Safety Programme.
- ESA estimates over one million pieces of space debris larger than one-centimetre orbit Earth, posing severe risks to satellites and astronauts.
- To achieve these goals, **ESA will develop innovative technologies for satellite end-of-life disposal, in-orbit servicing, and active debris removal.**
- The agency will also collaborate closely with regulatory bodies to ensure the effective implementation of these strategies.
- **Space debris, comprising non-functional objects in Earth orbit, poses threats to infrastructure and increases collision risks.**
- India's initiatives include Debris Free Space Missions (DFSM) by 2030 and Project NETRA for space situational awareness.
- Globally, efforts like the Inter-Agency Space Debris Coordination Committee and Space Debris Mitigation Guidelines are crucial for addressing this issue.

FORM 17C

Why in News?

A dispute has arisen over the Election Commission's (EC) handling of voter turnout data, particularly related to Form 17C.

About Form 17C:

- Form 17C mandated by the Conduct of Election Rules, 1961, **records detailed information about the votes cast at each polling station during elections.**
- It includes data such as the number of registered voters, votes polled, votes rejected, and other relevant statistics.
- Voter turnout data is crucial for assessing participation levels in elections and ensuring transparency and accountability in the electoral process.
- It **helps identify any discrepancies or irregularities in the voting process and serves as a basis for cross-verification during the counting of votes.**
- Opposition leaders and political activists have raised concerns over the Election Commission's delayed release of voter turnout data, particularly for the first and second phases of the Lok Sabha election
- Opposition leaders have demanded that the Election Commission adhere to the statutory requirement of releasing Form 17C data within 48 hours of the close of polling. They argue that timely disclosure of this information is essential for ensuring transparency and preventing electoral malpractices.
- **The Commission maintained there is no legal mandate for it to make public the total number of votes cast in each polling station.** It says copies of Form 17C are shared with the polling agents present immediately upon the close of polling.
- It has been argued that indiscriminate disclosure of this data could lead to confusion and chaos during polling.
- **As per the Conduct of Election Rules 1961 (1961 Rules), the ECI has to maintain two forms - Forms 17A and 17C - that have data on the number of electors and the votes polled.**
- While the Form 17A is used to record the details of every voter who comes into a polling booth and casts his or her vote, the **Form 17C is an account of all the votes recorded.**



- Under the 1961 Rules, a presiding officer is mandated to furnish a copy of the entries made in Form 17C to the polling agents of the candidates at the close of polling.
- The Form 17C has two Parts.
- Part I contains crucial information :
 - The identification numbers of the EVMs used in the polling station,
 - The total number of electors assigned to the polling station,
 - The total number of voters as entered in the register for voters (Form 17A),
 - The number of voters who decided not to record their votes after signing the register,
 - The number of voters who were not allowed to vote,
 - The total number of test votes and votes recorded per EVM.
- Part II contains the results of the counting carried out on the stipulated day.
- The data in Form 17C is used by candidates to verify the results on counting day by matching it with the EVM count.
- In the event of any anomalies, an election petition may also be filed with the relevant High Court.

GSAP SKILLS

Why in News?

The International Union for Conservation of Nature (IUCN) has launched the Global Species Action Plan (GSAP) skills.

About Global Species Action Plan (GSAP) SKILLS:

- The Global Species Action Plan (GSAP) SKILLS platform brings GSAP content online, enabling real-time updates of technical tools and resources.
- Global Species Action Plan has been developed to support implementation of the Kunming-Montreal Global Biodiversity Framework (GBF) and to address the increasing biodiversity loss worldwide.
- It aims to facilitate global collaboration and partnership, connecting decision makers, species conservation practitioners and experts at all levels.

- It provides real-time updates on technical tools and resources, ensuring accessibility and relevance.
- It also offers information on species conservation interventions, actions, and sub-actions for each Global Biodiversity Framework target, along with details on actors and technical tools.
- Each Global Biodiversity Framework target is accompanied by a brief summary and rationale for species conservation interventions, actions, and sub-actions, actors and technical tools and resources for those actions, facilitating the scaling-up of implementation efforts.
- It is **managed by IUCN**, the platform meets the needs of governments and stakeholders for species conservation actions.
- Additionally, **it receives support from the Ministry of Environment, the Republic of Korea, and the Tech4Nature Initiative launched by IUCN and Huawei in 2020.**
- The launch of the GSAP skills platform by IUCN represents a significant step towards building capacity and fostering collaboration in global species conservation efforts



WIPO TREATY

Why in News?

WIPO member states approved a historic new Treaty on intellectual property (IP), genetic resources (GR), and traditional knowledge (TK), following decades of negotiations.

The treaty has been adopted at a multilateral forum with a consensus among more than 150 countries, including the majority of the developed economies.

About the treaty:

- It will establish in international law a **new disclosure requirement for patent applicants whose inventions are based on GR and/or associated TK.**
- Features:
 - **Inclusive:** It marks the first WIPO Treaty to include provisions for Indigenous Peoples and local communities.
 - **New Disclosure Requirement:** Patent applicants must disclose the country of origin or source of GR and the Indigenous Peoples or local community that provided the associated TK.
 - **Membership:** Any WIPO member state can join.
 - **Non-Retroactivity:** The treaty does not apply to patents filed before its entry into force.
- **The treaty aims to address biopiracy**, where traditional knowledge is used by others for profit without permission from and with little or no compensation or recognition to indigenous people.
- Genetic resources, found in medicinal plants and agricultural crops, are often utilized in patented inventions, although they themselves cannot be patented.
- Traditional Knowledge is also sometimes used in scientific research and patent development.



About WIPO (World Intellectual Property Organization):

- The World Intellectual Property Organization (WIPO) is one of the **15 specialized agencies of the United Nations (UN).**
- It was established in 1967 through the **WIPO Convention**, transforming the earlier United International Bureau for the



Protection of Intellectual Property (BIPRI) into WIPO.

- **Headquarter : Geneva, Switzerland.**
- WIPO was created to promote and protect intellectual property (IP) across the world by cooperating with countries as well as international organizations.
- **WIPO administers 26 international treaties that concern a wide variety of intellectual property issues**, ranging from the protection of audiovisual works to establishing international patent classification.
- WIPO administers several key treaties, such as the **Berne Convention, Washington Treaty, Paris Convention, and the Singapore Treaty on the Law of Trademarks, among others.**

ZIMBABWE ZiG

Why in News?

- Reserve Bank of Zimbabwe (RBZ) has launched a new gold-backed currency called the ZiG, short for Zimbabwe Gold, replacing the Zimbabwean dollar.
- The ZiG, now the sixth currency used by Zimbabwe, has been in circulation since April 5, 2024.

About ZiG (Zimbabwe Gold):

- The ZiG stands out as a **new currency backed by gold reserves**, ensuring its value is supported by the physical gold held by the government.
- **ZiG notes and coins will be available and issued in denominations: 1ZiG, 2ZiG, 5ZiG, 10ZiG, 20ZiG, 50ZiG, 100ZiG and 200ZiG**, with the gold backing aims to provide stability and prevent currency devaluation.
- **ZiG has been in circulation since April 5, 2024**, and aims to provide stability and prevent currency devaluation through its gold-backed nature.
- Zimbabwe has grappled with high inflation, with rates surpassing 500% in recent years.



- Consequently, the Zimbabwean dollar, introduced in 1980, lost its value. Due to this, the country relied on various currencies, primarily the US dollar, leading to limited control over its economy.
- The collapse of the Zimbabwean dollar in 2009, with hyperinflation peaking at 5 billion per cent, marked one of the most severe currency crashes in history.
- The introduction of the ZiG currency aims to address these challenges, with banks in Zimbabwe converting the previous national currency into ZiGs, aiming to streamline monetary and financial processes while promoting simplicity, certainty, and predictability.

About Gold-backed currency:

- **Gold-backed currency has a fixed value directly tied to gold and is convertible into the precious metal.**
- Its money supply is constrained by available gold reserves, offering inherent value and potential long-term stability.
- In contrast, fiat currency lacks intrinsic value and is designated as legal tender by governments.
- Its value is dictated by supply and demand dynamics and isn't backed by any physical commodity. Fiat currency affords central banks greater control over printing money as needed.

COLOMBO PROCESS

Why in News?

India has become chair of regional grouping Colombo Process for the first time since its inception in 2003.

India has assumed the chair of the Colombo Process for 2024-26.

About Colombo Process:

- The Colombo Process is a **Regional Consultative Process focused on managing overseas employment and contractual labour.**

- It **comprises 12 Asian member states**, including Bangladesh and Sri Lanka, with India as a founding member.
- **Member States (12 States) include Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam.**
- Objectives of this process:
 - Share experiences, lessons learned and best practices in labour migration management
 - Consult on issues faced by migrants, countries of origin and countries of destination, and propose practical solutions for the well-being of overseas workers
 - Optimize development benefits from organized overseas employment and enhance dialogues with countries of destination
 - Review and monitor the implementation of the recommendations and identify further steps of action
- Priority areas include skills and qualification recognition and fostering ethical recruitment practices.
- The **UN's International Organization for Migration (IOM) provides technical and administrative support.**
- It serves as a forum for exchange of best practices on overseas employment.

Colombo Process
Migration for Prosperity - Adding Value by Working Together

About IOM (International Organization for Migration):

- **IOM was established in 1951 as part of the UN System, headquartered in Geneva, Switzerland.**
- With 175 member states, a further 8 states holding observer status and offices in 171 countries, **IOM is dedicated to promoting humane and orderly migration for the**



benefit of all.

- It does so by providing support to migrants across the world, developing effective responses to the shifting dynamics of migration and providing advice on migration policy and practice.
- The **organization collaborates with governmental, intergovernmental and non-governmental partners** to improve the resilience of people on the move, particularly those in situations of vulnerability.
- It also works closely with governments to manage all forms of mobility, and their impacts.
- **The IOM Constitution recognizes the link between migration and economic, social and cultural development**, as well as to the right of freedom of movement.
- It leads initiatives like the Global Compact For Migration.

LIGNOSAT

Why in News?

Japanese researchers from Kyoto University and Sumitomo Forestry have developed the world's first wooden satellite, LignoSat.

About Lignosat:

- Lignosat is the **tiny cuboid craft, made from magnolia wood**, measures 10 centimetres on each side and will be launched on a SpaceX rocket in September.
- The LignoSat probe has been built of magnolia wood, which, **in experiments carried out on the International Space Station (ISS)**, was found to be particularly stable and resistant to cracking.
- The **timber satellite has been built by researchers at Kyoto University and the logging company Sumitomo Forestry in order to test the idea of using biodegradable materials** such as wood to see if they can act as environmentally



friendly alternatives to the metals from which all satellites are currently constructed.

- Now plans are being finalised for it to be launched on a US rocket this summer.
- **The wooden material is expected to burn up completely upon re-entry, avoiding the creation of harmful metal particles.**
- If the LignoSat performs well -during its operation in orbit, then the door could be opened for the use of wood as a construction material for more satellites.

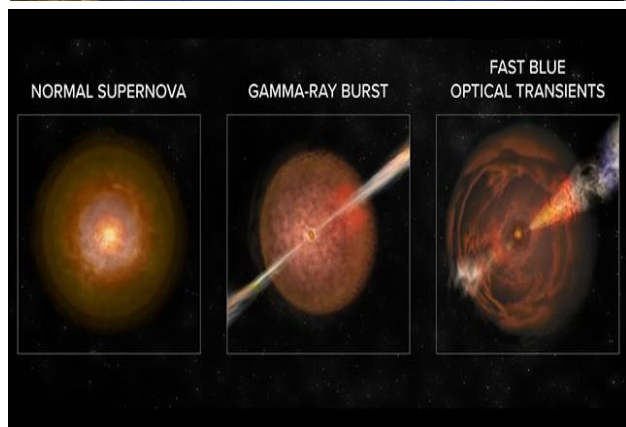
2024 SHAW PRIZE FOR ASTRONOMY

Why in News?

Srinivas R. Kulkarni, an Indian-origin U.S. scientist and brother of renowned author Sudha Murty, **has been awarded the prestigious Shaw Prize in Astronomy for 2024** for his work on the physics of astronomical transients.

About Astronomical Transients:

- **Astronomical transients are celestial objects that undergo rapid changes in brightness**, often associated with violent space events.
- Astronomers study them to understand their origins and mechanisms, providing insights into stable astronomical phenomena.
- Studying these energetic, short-lived cosmic events could unlock secrets of the universe's most powerful objects and physical laws.
- Some of the different types of astronomical transients are:
 - **Supernovae:** When the cores of massive stars collapse due to the depletion of fusionable elements,



- their outer layers explode, releasing immense energy and briefly outshining their entire host galaxy.
- **Active galactic nucleus (AGN):** Supermassive black holes at the cores of massive galaxies sometimes actively consume surrounding matter. This interaction causes the matter to emit light with varying brightness.
 - **Fast radio bursts (FRBs):** FRBs are powerful bursts of radio waves that can release as much energy in a few thousandths of a second as the sun emits in three days.

About The Shaw Prize:

- The Shaw Prize refers to three annual awards presented by the Shaw Prize Foundation in the fields of astronomy, medicine and life sciences, and mathematical sciences.
- It was **established in 2002 in Hong Kong** by Hong Kong entertainment mogul and philanthropist **Run Run Shaw**.
- The awards honour "individuals who are currently active in their respective fields and who have recently achieved distinguished and significant advances, who have made outstanding contributions in academic and scientific research or applications, or who in other domains have achieved excellence."
- **Each award consists of a gold medal, a certificate and USD\$1.2 million (USD\$1 million before 2015).**
- The prize has been described as the "Nobel of the East".



CLASSIC IAS ACADEMY