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Defence and Military Exercises

EXERCISE KAZIND -2024



- The 8th edition of India-Kazakhstan Joint Military Exercise KAZIND-2024 commenced, at Surya Foreign Training Node, Auli, Uttarakhand.
- The exercise was scheduled to be conducted from 30th September to 13th October 2024.
- Joint Exercise KAZIND-2024 has been held annually since 2016.
- Last edition of the Joint Exercise was held at Otar, Kazakhstan from 30th October to 11th November 2023.
- The Indian Armed Forces, comprising 120 personnel, are being represented by a battalion of the KUMAON Regiment of Indian Army, along with other arms and services, as well as personnel from the Indian Air Force.
- Aim of the Joint Exercise is to enhance joint military capability of both sides to undertake counter terrorism operations in a sub conventional scenario under Chapter VII of the United Nations Charter.
- The Joint Exercise will focus on operations in the semiurban and mountainous terrain.
- Joint Exercise KAZIND-2024 will enable both sides to share best practices in tactics, techniques and procedures of conducting joint operations.

EXERCISE MALABAR 2024

 Maritime Exercise Malabar 2024 scheduled to take place from 08 to 18 October 2024, began with the Harbour Phase in Visakhapatnam, followed by the Sea Phase.



- Hosted by India, this year's exercise saw the participation of Australia, Japan, and the United States of America.
- Exercise Malabar, which began in 1992 as a bilateral naval drill between the United States and Indian Navy, has evolved into a key multilateral event aimed at enhancing interoperability, fostering mutual understanding, and addressing shared maritime challenges in the Indian Ocean and Indo-Pacific region.
- The exercise will feature participation of various Indian naval platforms, including guided missile destroyers, multi-purpose frigates, submarines, fixed wing MR, fighter aircraft and helicopters.
- While Australia will deploy HMAS Stuart, an Anzac Class Frigate with its MH-60R helicopter and P8 Maritime Patrol Aircraft, the United States Navy will field the USS Dewey, an Arleigh Burke-Class Destroyer with its integral helicopter and P8 Maritime Patrol Aircraft.
- Japan will join the exercise with JS Ariake, a Murasameclass Destroyer.

EXERCISE NASEEM AL BAHR

- INS Trikand and Dornier Maritime Patrol Aircraft, participated in the Indo-Oman bilateral naval exercise Naseem-Al-Bahr with the Royal Navy of Oman Vessel Al Seeb off Goa from 13 to 18 October 24.
- The exercise was conducted in two phases: with harbour phase from 13 to 15 October 24, followed by the sea phase.



- As part of harbour activities, personnel from both Navies engaged in professional interactions, including Subject Matter Expert Exchanges and planning conferences.
- During the sea phase of the exercise conducted from 16 to 18 Oct 24, both ships carried out various evolutions, including gun firings at surface inflatable targets, close-range anti-aircraft firings, manoeuvres, and Replenishment at Sea Approaches (RASAPS).
- The integral helicopter operated from INS Trikand and undertook cross-deck landings.
- Oman is the first Gulf country with which all three wings of India's defense forces—Army, Navy, and Air Force—hold joint exercises.

About INS Trikand

- INS Trikand is part of the Indian Navy's Western Fleet and operates under the Western Naval Command headquartered at Mumbai.
- She is a modern warship with advanced technologies to make her stealthy, fast and formidable.

EXERCISE SIMBEX 2024



- The 31st edition of the Singapore India Maritime Bilateral Exercise (SIMBEX) was scheduled from 23 to 29 Oct 2024, in the Eastern Naval Command at Visakhapatnam.
- Republic of Singapore Navy Ship RSS Tenacious with embarked helicopter, arrived at Visakhapatnam on 23 October 24 for participating in SIMBEX 2024.
- SIMBEX, which began as 'Exercise Lion King' in 1994, has since evolved into one of the most significant

- bilateral maritime collaborations between the Indian Navy and the Republic of Singapore Navy (RSN).
- The exercise will be conducted in two phases the Harbour Phase from 23 to 25 October at Visakhapatnam and the Sea Phase from 28 to 29 October in the Bay of Bengal.
- The Harbour Phase will include Subject Matter Expert Exchanges (SMEEs), cross-deck visits, sports fixtures, and pre-sail briefings between personnel from both navies.
- The Sea Phase will witness advanced naval drills, including live weapon firings, anti-submarine warfare (ASW) training, anti-surface and anti-air operations, seamanship evolutions, and tactical manoeuvres.
- The opening ceremony to mark the beginning of SIMBEX24 will be conducted on 24 Oct 24, onboard INS Shivalik and will be attended by participating units of the Eastern Fleet and the Singapore Navy.

MARITIME PARTNERSHIP EXERCISE (MPX)



- Indian Navy's Destroyer INS Delhi, German Navy's Frigate Baden-Württemberg and Tanker Frankfurt Am Main undertook a Maritime Partnership Exercise (MPX) in the Indian Ocean.
- The exercises conducted include cross deck flying operations, underway replenishment, weapon firing and tactical manoeuvres.

About the Ships

- INS Delhi is the lead ship of her class of guided missile destroyers and is part of the Eastern Fleet of the Indian Navy.
- Baden-Württemberg is the lead ship of the F125 class of German Navy frigates.
- Frankfurt Am Main is the second ship of the Berlinclass replenishment ships of the German Navy.

LAUNCH OF 'ABHAY', THE SEVENTH ANTI-SUBMARINE WARFARE SHALLOW WATER CRAFT

 'Abhay', the seventh Anti-Submarine Warfare Shallow Water Craft (ASW SWC) being built by M/s GRSE for the Indian Navy, was launched on 25 Oct 24 at M/s L&T, Kattupalli.





- The contract for building eight ASW SWC ships was signed between MoD and Garden Reach Shipbuilders & Engineers (GRSE), Kolkata on Apr 19.
- Arnala class of ships will replace the in-service Abhay class ASW Corvettes of Indian Navy and are designed to undertake anti-submarine operations in coastal waters, Low Intensity Maritime Operations (LIMO) and Mine Laying Operations.
- The ASW SWC ships are approx 77 m long, with a maximum speed of 25 knots & endurance of 1800 NM.
- The launch of Abhay highlights the nation's resolve towards Aatmanirbhar Bharat in shipbuilding.
- The ASW SWC ships are designed with over 80% indigenous content, thereby ensuring that large scale defence production is executed by Indian manufacturing units, generating employment and capability enhancement within the country.

ICG LAUNCHED TWO FAST PATROL VESSELS 'ADAMYA' AND 'AKSHAR'



- Indian Coast Guard (ICG) simultaneously launched two Fast Patrol Vessels (FPVs) 'Adamya' and 'Akshar', with over 60% indigenous content, built by Goa Shipyard Ltd. (GSL) on October 28, 2024.
- The vessels are part of the contract signed with GSL for eight such FPVs to be built at a cost of Rs 473 crore.
- With the primary role of protection, monitoring, control and surveillance, these advanced FPVs will help ICG protect offshore assets and island territories.

- Each FPV has a length of 52m, breadth of 8m, max speed of 27 knots, Controllable Pitch Propeller-based propulsion system and displacement of 320 tons.
- In a first, two vessels were launched simultaneously utilizing the state-of-art Ship Lift System.
- The FPVs were inaugurated and named in a ceremonious way by Smt Priya Paramesh in the presence of Director General ICG Paramesh Sivamani, and veterans to the chants of 'Atharva Veda'.

CHANAKYA DEFENCE DIALOGUE 2024 CULMINATED AT NEW DELHI



- The second edition of the Indian Army's flagship international seminar, the Chanakya Defence Dialogue, culminated on 25th October at the Manekshaw Centre in Delhi.
- This two-day event brought together policymakers, strategic thinkers, academia, defence personnel, veterans, scientists, and subject matter experts from India and abroad to examine India's strategic directions and developmental priorities.
- The Chanakya Defence Dialogue 2024, themed "Drivers in Nation Building: Fueling Growth Through Comprehensive Security", sparked essential discussions on the integration of security dynamics within the broader context of national and international policymaking.
- Through its diverse discussions, the dialogue fostered collaborative problem-solving and explored solutions that can influence India's strategic direction on National Security and endeavours towards Viksit Bharat @2047.

ARMY'S SUDARSHAN CHAKRA CORPS CONDUCTED 'SWAVLAMBAN SHAKTI' EXERCISE

- The Army concluded its integrated fire and manoeuvre training exercise Swavlamban Shakti at the Babina Field Firing Ranges.
- More than 1,800 personnel, 210 armoured vehicles, 50 specialist vehicles, and multiple air and aviation assets participated in this exercise conducted by White Tiger



Division under Sudarshan Chakra Corps over six days from October 17.



- The Sudarshan Chakra Corps is a strike corps of the Army and is headquartered in Bhopal.
- This large-scale manoeuvre and live-fire exercise focused on testing New Technology Equipment (NTEs) from the Indian defence industry, to shape future combat strategies.

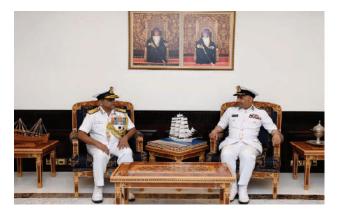
INDIA'S FOURTH NUCLEAR SUBMARINE LAUNCHED INTO WATER



- India marked a significant step in its strategic defence program by launching its fourth nuclear-powered ballistic missile submarine (SSBN), codenamed S4*, at the Ship Building Center (SBC) in Visakhapatnam.
- INS Chakra was designated as S1, followed by INS Arihant as S2, and INS Arighaat as S3.
- The newly launched INS Aridhaman is named S4, making it the last of its class, with the formal name for S4* still pending.
- The third SSBN, INS Aridhaman, is expected to be commissioned next year, further adding to the country's sea-based nuclear deterrence.
- The newly launched S4* SSBN is a crucial upgrade from its predecessors.
- It carries only K-4 nuclear ballistic missiles, which have a range of 3,500 kilometers and can be launched through vertical systems.
- Unlike the first SSBN, INS Arihant, which carries K-15 nuclear missiles with a range of 750 kilometers, the new generation of SSBNs, including S4*, have significantly enhanced missile range and firepower.

- The submarine boasts nearly 75% indigenous content, showcasing India's progress in defence manufacturing.
- Both INS Arihant and INS Arighaat are already on deepsea patrols, contributing to India's maritime security.

FIRST TRAINING SQUADRON CONCLUDED VISIT TO MUSCAT, OMAN



- Indian Naval Ships Tir, Shardul and Indian Coast Guard Ship Veera of First Training Squadron (1TS) of the Indian Navy on long range training deployment arrived at Muscat, Oman on 05 Oct 24.
- The port call further signifies strengthening of existing defence relations between India and Oman in maritime domain.
- The Indian Naval delegation visited Said Bin Sultan Naval Base and were conducted on a guided tour including ships, maintenance units and medical setup.
- The visit of Indian Naval Ships to the Sultanate of Oman concluded on a high note, having significantly strengthened bonds and fostering deeper and longlasting ties between the two seafaring nations.
- Indian Naval Ships Tir and Shardul are part of the Indian Navy's First Training Squadron (1TS): INS Tir: A cadet training ship and INS Shardul: An amphibious warfare ship.
- The ships are based at the Southern Naval Command in Kochi.

DELIVERY OF NIRDESHAK TO INDIAN NAVY





- Nirdeshak (Yard 3026), second of four Survey Vessel (Large) ships, steered by the Indian Navy's Warship Design Bureau and being built at Garden Reach Shipbuilders & Engineers (GRSE), Kolkata was delivered to the Indian Navy on 08 Oct 24.
- The **first ship of the class, INS Sandhayak**, was commissioned on 03 Feb 24.
- The contract for four Survey Vessels (SVL) was signed on 30 Oct 18.
- The ship aims at full scale coastal and deep-water hydrographic survey of port/ harbor approaches and determination of navigational channels/ routes.
- The ship will also collect oceanographic and geophysical data for defence and civil applications.
- With a displacement of about 3400 tons and overall length of 110 meters,
- Powered by two diesel engines, the ship can achieve speeds in excess of 18 knots.
- Nirdeshak has an indigenous content of over 80% by cost.
- The delivery of Nirdeshak is a reassurance on the impetus of the Government of India and the Indian Navy towards 'Aatmanirbhar Bharat'.
- The delivery of Nirdeshak is a tribute to the collaborative efforts of a large number of stakeholders, MSMEs and the Indian industry in enhancing the maritime prowess of the nation in the Indian Ocean Region.

ARMY COMMANDERS' SUMMIT IN GANGTOK, SIKKIM



- The Second Army Commanders' Conference for the year 2024 was organized in a hybrid mode, with the first Phase planned on 10-11 October 2024 in a forward location at Gangtok.
- In the second phase, the senior hierarchy of the Indian Army will congregate at Delhi on 28-29 October 2024.
- Shri Rajnath Singh, Hon'ble Raksha Mantri will deliver
 a keynote address to the senior leadership at Gangtok
 and will be briefed on the emerging security challenges
 and the response of the Army in the security domain.

 The conference's focus on Gangtok underlines the Army's commitment to border security, especially along the Line of Actual Control (LAC).

RAKSHA MANTRI SHRI RAJNATH SINGH TO INAUGURATE DEFCONNECT 4.0

- Raksha Mantri Shri Rajnath Singh on October 07, 2024, inaugurated DefConnect 4.0 at Manekshaw Centre, Delhi Cantt, a significant step towards advancing indigenous innovation and celebrating the growing defence ecosystem of the country.
- DefConnect 4.0 marks a milestone in India's defence innovation journey, bringing together the Armed Forces, Defence Public Sector Undertakings (DPSUs), industry leaders, innovators, start-ups and MSMEs, academia, incubators, investors and policymakers.
- Till date, iDEX has launched 11 editions of Defence India Start-up Challenges, and has garnered over 9,000 applications.
- It is currently collaborating with more than 450 startups/MSMEs on important projects. Launched by Prime Minister Shri Narendra Modi in 2018, iDEX continues to provide a unified platform for various stakeholders in the defence and aerospace sectors, contributing to the vision of Viksit Bharat by 2047.

DRDO SUCCESSFULLY FLIGHT-TESTS 4TH GENERATION VERY SHORT RANGE AIR DEFENCE SYSTEM



- Defence Research and Development Organisation (DRDO) successfully conducted three flight-tests of the 4th Generation, technically-advanced miniaturized Very Short Range Air Defence System (VSHORADS) at the Pokhran Field Firing Ranges in Rajasthan on October 03 & 04, 2024.
- The tests were carried out against high speed targets, demonstrating very critical parameters of maximum range and maximum altitude interception.
- These development trials showcased repeatability of hit-to-kill capability of the weapon system in various target engagement scenarios covering approaching, receding and crossing modes.



- The development of VSHORADS missiles has been completed and two production agencies have been engaged in the Development cum Production Partner (DcPP) mode.
- VSHORADS is a Man Portable Air Defence System designed and developed indigenously by Research Centre Imarat (RCI) in collaboration with other DRDO laboratories and DcPPs.
- This new missile equipped with modern technologies will give further technological boost to the Armed Forces against aerial threats.
- It has a range of up to 6-km.

MILITARY NURSING SERVICE CELEBRATED ITS 99TH RAISING DAY



- The Military Nursing Service (MNS) marked its 99th Raising Day on Oct 1, 2024 with solemnity and pride.
- The ceremony is a testament to the camaraderie and professional excellence of the service which has played an indispensable role in the health and welfare of Indian soldiers, particularly during wars, conflicts, and national emergencies.
- The Military Nursing Service, established in 1926, has grown into a robust and indispensable part of the Indian Armed Forces.
- The Military Nursing Service continues to uphold its mission of "Service before Self", and the motto 'Service

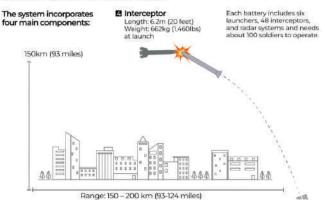
with Smile' that resonates deeply with every MNS officer in the service.

U.S. SENT THAAD ANTIMISSILE SYSTEM SENT TO ISRAEL

MILITARY

THAAD anti-ballistic missile system

The US-made Terminal High Altitude Area Defense (THAAD) battery is a mobile anti-missile system capable of intercepting short, medium and intermediate-range ballistic missiles.



 In its latest round of military assistance to Israel, the United States will send its advanced Terminal High Altitude Area Defense (THAAD) missile defence system.

About THAAD

- THAAD is an advanced missile defence system that uses a combination of radar and interceptors to thwart short-, medium- and intermediate-range ballistic missiles.
- Its missiles have a range of 150 to 200 km (93 to 124 miles), and the system is made by US defence and aerospace manufacturer Lockheed Martin.
- It can intercept missiles inside and outside Earth's atmosphere during their final stage of flight, which begins when the detached warhead re-enters Earth's atmosphere and ends upon detonation, according to the Center for Arms Control and Non-Proliferation.



2

History and Culture

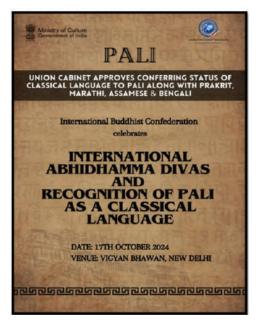
5 LANGUAGES APPROVED BY GOVT AS CLASSICAL LANGUAGES



- The Union Cabinet officially recognised Marathi, Pali, Prakrit, Assamese, and Bengali as Classical Languages, also known as Shastriya Bhasha on October 3, 2024.
- This brings the total number of Classical Languages in India to eleven, including previously recognised languages like Sanskrit and Tamil.
- Classical languages hold a special status in India as custodians of ancient knowledge, history, and tradition.
- The government aims to preserve and promote these languages by granting them this status.
- Each language has its roots in ancient civilizations and has evolved over centuries.
- For instance, Tamil is one of the oldest languages with a history that dates back over 2,000 years.
- Sanskrit, often referred to as the mother of many Indian languages, has been a significant medium for ancient texts and scriptures.
- The Linguistic Experts Committee (LEC) has set these criteria to ensure that only languages with significant historical and cultural value receive this status.
- The revised criteria, established in 2024, are as follows:
 - 1. High antiquity of its early texts/recorded history over a period of 1500- 2000 years.
 - 2. A body of ancient literature/texts, which is considered a heritage by generations of speakers.
 - 3. Knowledge texts, especially prose texts in addition to poetry, epigraphical and inscriptional evidence.
 - 4. The Classical Languages and literature could be distinct from its current form or could be discontinuous with later forms of its offshoots.

 These conditions ensure that only languages with a significant historical and cultural legacy are granted classical status.

CELEBRATIONS OF ABHIDHAMMA DIVAS AND RECOGNITION OF PALI AS A CLASSICAL LANGUAGE



- The Ministry of Culture in association with the International Buddhist Confederation (IBC) observed the International Abhidhamma Divas while celebrating the recent declaration of Pali as a classical language by the Government of India.
- The recent recognition of Pali as a classical language, along with four other languages, enhances the significance of this year's Abhidhamma Divas celebrations as Buddha's teachings on Abhidhamma are originally available in Pali language.
- Abhidhamma Divas commemorates the descent of Lord Buddha from the celestial realm of the thirty-three divine beings (Tāvatimsa-devaloka) to Sankassiya, known today as Sankisa Basantapur in the Farrukhabad district of Uttar Pradesh, India.
- The significance of this location is underscored by the presence of the Asokan Elephant Pillar, an enduring marker of this historic event.

• The International Abhidhamma Divas is expected to draw approximately 1000 delegates.

About Abhidhamma Divas

- According to the Pali texts, Buddha preached the Abhidhamma first to the Gods of the Tavatimsa heaven, who were headed by his mother.
- After having returned to the earth again, he conveyed the message to his disciple Sariputta. This auspicious Day coincides with the end of the (first) Rainy Retreat and the Pavāraṇā festival.

62ND ANNIVERSARY OF THE BATTLE OF WALONG



• Indian Army plans month-long commemorative events for the 62nd anniversary of Battle of Walong, including inauguration of key infrastructure projects.

About the Battle of Walong

- The Battle of Walong took place during the Sino-Indian War of 1962.
- It took place near the town of Walong in the eastern sector of the conflict, in the present-day Arunachal Pradesh region of India.
- The Chinese government refused to recognize the McMahon Line, which had been established as the boundary between British India and Tibet in 1914.
- The battle began on 21 October 1962, when Chinese forces launched their first attack on Indian positions.
- The Indian defenders, consisting primarily of troops from the 4th Sikh Regiment and the 6th Kumaon Regiment, had prepared defensive positions along the ridges and valleys around Walong.
- Indian forces, despite being outnumbered and under equipped, resisted the Chinese advance for nearly a month.

CHENCHUS TRIBE OF ANDHRA PRADESH

- The Chenchus of Penukumadugu have lived in the dense Nallamala forests for centuries, their existence intertwined with the wilderness around them.
- However, their inability to keep up with the relentless pace of modernisation has led to dwindling work opportunities under the MGNREGA.



About the Tribe

- The Chenchus are a Dravidian tribe, a designated Scheduled Tribe in the Indian states of Andhra Pradesh, Telangana, Karnataka and Odisha.
- They are an aboriginal tribe whose traditional way of life has been based on hunting and gathering.
- The Chenchus speak the Chenchu language, a member of the Dravidian language family.
- In general, the Chenchu relationship to non-tribal people has been largely symbiotic.
- Some Chenchus have continued to specialize in collecting forest products for sale to non-tribal people.
- Many Chenchus live in the sparse and deciduous Nallamala forest of Telangana and Andhra Pradesh.
- The Chenchus are referred to as one of the Primitive Tribal Groups that are still dependent on forests and do not cultivate land but hunt for a living.

BANJARA VIRASAT 'NAGARA' MUSEUM



- Recently, the Indian PM inaugurated the Banjara Virasat Museum in Poharadevi at Washim, Maharashtra.
- The Prime Minister also paid floral tribute to the memorials of Banjara leaders Sant Sevalal Maharaj and Sant Ramrao Maharaj.
- He also played the Nangara, a key musical instrument of the Banjara culture.



About the Banjara Community

- The Banjara community, often referred to as Gypsies, has a rich and vibrant history rooted in nomadic traditions.
- Derived from the words "Vanaj" (to trade) and "Jara" (to travel), their nomadic lifestyle played a crucial role in connecting villages and providing essential supply.
- Geographical Spread: The Banjara community has deep roots in Rajasthan and is now spread across various states, known by different names such as Lambada or Lambadi in Andhra Pradesh, Lambani in Karnataka, Gwar or Gwaraiya in Rajasthan, and more.
- **Language**: Their unique language, "Gorboli" or "Gor mati Boli", falls under the Indo-Aryan language category.
- The nangara is a unique and essential musical instrument closely associated with the Banjara community.

COPPER PLATES FROM VIJAYANAGARA KINGDOM DISCOVERED IN TIRUVALLUR DISTRICT

- A set of copper plate inscriptions with two leaves dating back to the 16th Century CE have been discovered at the Sri Singeeswarar temple at Mappedu village.
- The copper plates are linked by a ring featuring the seal of the Vijayanagara Kingdom.
- It details a village donation by King Krishnadevaraya.



About Sri Singeeswarar Temple

- This temple is located at Mappedu in Tiruvallur of Tamil Nadu state in India.
- This temple was built by Aditya Karikal Chollha II (elder brother of Rajaraja Chollha) in the year 976 A. D.
- It is a Hindu temple dedicated to Lord Shiva.
- It is built in Dravidian architecture style.



3

Environment and Geography

MUDUMALAITIGER RESERVE



- The Mudumalai Tiger Reserve (MTR) in Tamil Nadu recently revealed significant biodiversity findings during a herpetofauna survey, identifying 33 reptiles and 36 amphibians recorded for the first time in the region.
- Two critically endangered amphibian species, Micrixalus spelunca (cave dancing frog) and Nyctibatrachus indraneili (Indraneil's night frog), were discovered in Mudumalai Tiger Reserve.
- This survey highlights the ecological diversity within the reserve and underlines the importance of conservation efforts in these biodiverse habitats.
- About Mudumalai Tiger Reserve:
- Location: Situated in the Nilgiris District of Tamil Nadu, MTR lies at the tri-junction of Tamil Nadu, Karnataka, and Kerala.
- It shares boundaries with **Wayanad Wildlife Sanctuary** (Kerala) to the west and **Bandipur Tiger Reserve** (Karnataka) to the north.
- Historical Significance: Named Mudumalai, meaning "ancient hill range", the reserve is as old as 65 million years, coinciding with the formation of the Western Ghats
- **Popular Sites**: The **Theppakadu elephant camp** is a notable attraction for visitors.

Ecological Features

 Vegetation: MTR supports a diverse range of habitats, including tropical evergreen, moist deciduous, moist teak, and dry teak forests, along with secondary grasslands and swamps.

- Flora: The reserve is home to Elephant Grass, giant Bamboo, and valuable timber species like Teak and Rosewood.
- Fauna: MTR hosts iconic wildlife, including Elephants, Gaur, Tigers, Panthers, Spotted Deer, Barking Deer, Wild Boar, and Porcupine.

Survey Highlights

- Critically Endangered Amphibians:
 - Micrixalus spelunca, known as the Cave Dancing Frog.
 - Nyctibatrachus indraneili, also called Indraneil's Night Frog.
- Endangered and Endemic Species: The survey documented several endangered, endemic amphibians, such as:
 - The Star-eyed Bush Frog
 - The Nilgiri Bush Frog
 - The Nilgiris Wart Frog

HURRICANE HELENE IN USA DOWNGRADED TO POST-TROPICAL CYCLONE



- Hurricane Helene has recently impacted the southeastern United States, resulting in extensive flooding and widespread damage to property and infrastructure.
- Understanding hurricanes and their destructive capabilities helps in grasping the severity of such natural disasters.
- What is a Hurricane?
- A hurricane is a powerful tropical storm marked by strong winds, heavy rainfall, and low atmospheric pressure.

- Depending on the location, these storms are also known as cyclones or typhoons:
 - Atlantic Ocean and Northeast Pacific: Hurricanes
 - Northwestern Pacific: Typhoons
 - South Pacific and Indian Ocean: Cyclones

Key Characteristics of Hurricanes

- Low-Pressure Center:
 - Hurricanes feature a well-defined **low-pressure center**, known as the **eve**.
 - The eye is typically calm, with clear skies and light winds, and is surrounded by the eyewall, a ring of intense thunderstorms.

• Strong Winds:

 Hurricanes are notorious for their strong winds, with sustained speeds of 74 mph or higher. These winds can cause significant damage to buildings, trees, and power lines.

Heavy Rainfall:

 Intense rainfall from hurricanes can lead to flooding, landslides, and storm surges, which pose serious risks to coastal and inland areas.

Formation of Hurricanes:

- Hurricanes develop over warm ocean waters with temperatures typically above 26°C.
- Warm, moist air rises from the ocean surface, creating a low-pressure area.
- As this air cools and condenses, heat is released, fueling the storm's growth and intensification.

Categories of Hurricanes:

- Hurricanes are rated on the Saffir-Simpson Hurricane Wind Scale:
 - Category 1: 74–95 mph (weakest)
 - **Category 2**: 96–110 mph
 - **Category 3**: 111–129 mph
 - **Category 4**: 130-156 mph
 - Category 5: 157 mph or higher (strongest, with maximum potential for destruction)
- The Saffir-Simpson Scale categorizes hurricanes based on wind speed, which correlates with their potential for structural damage and flooding risks.

WHITE DWARF STAR



- The discovery of the first rocky planet orbiting a white dwarf star marks a significant milestone in astronomical research.
- Here's a closer look at white dwarf stars and their characteristics:

About White Dwarf Stars:

- **Definition**: A **white dwarf** is the remaining core of a star that has exhausted its nuclear fuel. After the star undergoes significant changes, it expels its outer layers, resulting in the formation of a **planetary nebula**.
- **Formation Process**: Stars like the Sun eventually run out of hydrogen fuel in their cores. As nuclear fusion ceases, the star expands into a **red giant**. Eventually, it sheds its outer layers, leaving behind the hot core, which becomes the white dwarf.
- Chandrasekhar Limit: The Chandrasekhar limit is approximately 1.44 times the mass of the Sun. This limit represents the maximum mass for a stable white dwarf. If a star's remnant core exceeds this limit, it cannot stabilize as a white dwarf and will collapse into either a neutron star or a black hole.
- Characteristics: White dwarfs are extremely dense; a typical white dwarf is about the size of Earth but has a mass comparable to that of the Sun. They emit light due to residual heat, and over time, they cool and dim, eventually becoming black dwarfs, although the universe is not old enough for any black dwarfs to exist yet.
- **Importance of Discovery**: The identification of a rocky planet orbiting a white dwarf can provide insights into planetary formation and evolution in the aftermath of a star's life cycle.
- It may help scientists understand how planets can survive the dramatic changes a star undergoes during its transition to a white dwarf.

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFIES ECOMARK RULES UNDER LIFESTYLE FOR ENVIRONMENT INITIATIVE





- The Ecomark labeling system in India is a certification initiative that encourages the production and purchase of eco-friendly products, aligning with the principles of LIFE (Lifestyle for Environment) to promote sustainability and efficient resource use.
- Here's a detailed look at the Ecomark system:
 - Overview of the Ecomark Labeling System:
 - Purpose: Ecomarkaimstohelpconsumersidentify and choose eco-friendly products, including food items, cosmetics, soaps, electronics, and more, to support environmentally sustainable choices.
 - Alignment with LIFE: The Ecomark initiative reflects the LIFE approach by focusing on sustainable lifestyles and efficient resource utilization, urging consumers and manufacturers to adopt practices that are environmentally responsible.

Ecomark Label Criteria and Process:

- Granting Criteria: Ecomark is awarded to products that have an Indian Standards license or a Quality Control Orders mandate and meet the environmental and resource efficiency standards specified by the Bureau of Indian Standards (BIS) and other prescribed rules.
- ❖ Application Process: Manufacturers seeking the Ecomark label must apply through the Central Pollution Control Board (CPCB).
- Validity: The Ecomark certification is valid for three years.
- Oversight and Implementation: Oversight of the Ecomark system is managed by a Steering Committee, headed by the Environment Secretary, ensuring adherence to standards and promoting transparency.

• Significance of Ecomark:

- Informed Consumer Choices: Ecomark enables consumers to make informed decisions by choosing products that meet environmental standards, reducing their environmental footprint.
- Encouraging Eco-Friendly Manufacturing: It motivates manufacturers to shift towards sustainable production practices, supporting a circular economy and minimizing greenwashing (misleading claims about a product's environmental benefits).
- Promoting Energy Efficiency and Conservation: Ecomark aims to foster lower energy consumption and resource conservation, promoting ecofriendly innovations across industries.

• Other Environmental Certification in India:

• Indian Forest & Wood Certification Scheme:
This scheme provides voluntary third-party
certification for sustainable forest management
and agroforestry.

• Certification Types:

- Forest Management Certification: Ensures responsible forest management practices.
- Tree Outside Forest Management Certification: Promotes sustainable management of trees outside traditional forests.
- Chain of Custody Certification: Ensures traceability of certified wood through the supply chain.
- This certification offers **market incentives** for entities practicing sustainable forest and agroforestry management, supporting ecological balance.

NINE CAPTIVE-BRED PYGMY HOGS RELEASED IN ASSAM'S MANAS NATIONAL PARK



 Nine captive-bred pygmy hogs were released into Manas National Park in Assam as part of a conservation initiative.

About Pygmy Hog:

- **Habitat:** Prefers **tall, dense grasslands** with shrubs and trees. Constructs dome-shaped nests from vegetation for shelter.
- Range in India: Found in Manas and Barnadi Wildlife Sanctuaries in Assam.

Characteristics:

- Smallest and rarest wild suid (pig family) species in the world.
- Functions as an indicator species; its presence signifies healthy tall, wet grassland ecosystems.

Behavior:

- Non-territorial and lives in small family groups of 4-5 members.
- Adult males are generally solitary but remain loosely connected to family groups.

Conservation Status:

- Listed as **Endangered** on the **IUCN Red List**.
- Protected under Schedule I of India's Wildlife (Protection) Act, 1972.
- The release of captive-bred pygmy hogs in Manas National Park is a crucial step towards preserving this endangered species and its habitat.



GREENING OF ANTARCTIC PENINSULA



- The **Antarctic peninsula** has experienced a 10-fold increase in vegetation from less than 1 square km in 1986 to almost 12 square km by 2021.
- · Key Findings on Vegetation Growth:
 - Increase in Vegetation: Vegetation cover on the Antarctic Peninsula has increased 10-fold from less than 1 square km in 1986 to nearly 12 square km by 2021.
 - Rate of Growth: The vegetation cover growth rate was **0.424** km² per year from 2016-2021, faster than the **0.317** km² per year average over the entire 35-year study period.
- Factors Contributing to Greening:
 - Climate Change: The Antarctic Peninsula is warming at a rate five times faster than the global average. Since 1950, it has warmed by nearly 3°C.
 - Glacial Retreat: As glaciers recede, more land is exposed, providing space for plant colonization and accelerating the greening process.
- Ecological Impact and Concerns:
 - Moss Ecosystems: Mosses, as pioneer species, initiate ecological succession—a gradual change in species over time as the environment changes.
 - **Soil Formation**: Mosses aid in forming organic soil, which supports higher plant colonization.
 - Risk of Invasive Species: Increased vegetation could lead to the introduction of non-native and invasive species that may disrupt the local ecosystem.
- The greening of the Antarctic Peninsula reflects both climate-driven changes and potential challenges for its unique ecosystems, with warming allowing vegetation to expand and alter the landscape.

THE JAMES WEBB SPACE TELESCOPE UNCOVERS CARBON DIOXIDE AND HYDROGEN PEROXIDE ON PLUTO'S MOON CHARON

• NASA's James Webb Space Telescope detected carbon dioxide and hydrogen peroxide on the surface of Pluto's largest moon, Charon.



- This discovery was published in the journal Nature Communications.
- Here are some of the findings:
 - Chemical composition: The discovery of carbon dioxide and hydrogen peroxide adds to the known chemical composition of Charon, which also includes water ice, ammonia, and organic materials.
 - **Organic reactions:** The discovery provides insight into the organic reactions that occur on Charon, which contribute to the evolution of its surface composition.
 - **Origin of Charon:** The discovery may help scientists understand how Charon came to be and the composition of other distant moons and planets.
 - Formation of hydrogen peroxide: Scientists suspect that hydrogen peroxide may have formed through contact electrification, where water drops collide with a solid surface and create reactive oxygen species that combine to form hydrogen peroxide.
- Charon is the largest moon in the solar system relative to the planet it orbits. It's about half the diameter and an eighth the mass of Pluto, a dwarf planet in the Kuiper Belt.

BUTTERFLY MIGRATION THRIVES IN TAMIL NADU'S WESTERN GHATS



 A recent study noted the migration of Danainae butterflies between the Anamalai Tiger Reserve and Nilgiris in Tamil Nadu, driven by favorable rainfall.



- About the Danainae Sub-family (Milkweed Butterflies & Glasswings):
 - Common Species: Includes species like the Blue Tiger, Dark Blue Tiger, Double-branded Crow, and Common Crow—often called "tigers and crows".
- Unique Migration Pattern:
 - Pre-Northeast Monsoon: Migrate from the Eastern Ghats and plains toward the nearest hill ranges of the Western Ghats.
 - Pre-Southwest Monsoon: Migrate from the Western Ghats hill ranges back towards the Eastern Ghats and plains of Tamil Nadu.
- These butterflies exhibit a unique seasonal migration across regions in response to monsoonal changes, moving between the Eastern and Western Ghats.

BIHAR GETS APPROVAL FOR SECOND TIGER RESERVE IN KAIMUR



- National Tiger Conservation Authority's (NTCA) has given approval to develop Kaimur Wildlife Sanctuary (KWS) as Bihar's second tiger reserve after Valmiki Tiger Reserve.
- Key Facts about Kaimur Wildlife Sanctuary (KWS):
 - New Tiger Reserve: Approved by the National Tiger Conservation Authority (NTCA) to become Bihar's second tiger reserve, after Valmiki Tiger Reserve.
 - NTCA: A statutory body under the Wildlife (Protection) Act of 1972, responsible for tiger conservation efforts in India.
- About Kaimur Wildlife Sanctuary:
 - Location: Situated on the Kaimur Hills plateau between the Son River (south) and Karmanasa River (west).
 - Region: Spans parts of the Central Highlands, including the Satpura-Maikal hills and Vindhya-Bagelkhand hills, as well as the Chota Nagpur Plateau.
 - Connectivity: Linked to the Bandhavgarh-Sanjay-Guru Ghasidas-Palamau tiger landscape—a crucial corridor for wildlife movement.

Flora and Fauna

- Fauna: Home to species like leopards, wild boars, sloth bears, and others.
- Forest Type: Primarily Northern Tropical Mixed Dry Deciduous Forests.
- The establishment of KWS as a tiger reserve aims to strengthen tiger conservation in the region and preserve the sanctuary's biodiversity.

SEDIMENTARY ROCK MADE FROM COASTAL SLAG DEPOSITS



- Discovery of New Sedimentary Rock:
 - New Rock Type: Researchers have identified a unique sedimentary rock formed from coastal slag deposits in the U.K.
 - Formation Process: Slag deposits undergo lithification—a process where industrial waste materials like slag harden and cement into sedimentary rocks, contributing to the formation of artificial ground.
- About Slag:
 - Composition: Slag is a composite material consisting of metal oxides and silicon dioxide. It is a by-product of steelmaking in the iron and steel industries.
 - **Properties:** Chemically stable, it has the ability to **neutralize acidity**, making it useful for various environmental and construction applications.
 - **Abundance in the U.K.:** Due to a history of industrial activities, **slag-containing sedimentary rocks** are relatively more common in the U.K.
- The study of these slag-based sedimentary rocks helps understand the long-term impact of industrial by-products on geological formations, especially in regions with extensive industrial history.

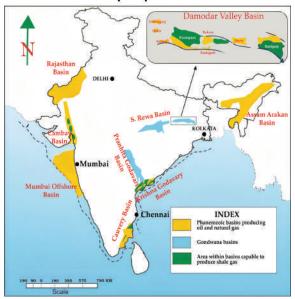
STUDY INDICATES SHALE GAS GENERATION POTENTIAL IN EASTERN SOUTH KARANPURA COALFIELD, JHARKHAND

- Study by Birbal Sahni Institute of Palaeosciences:
 - Institution: The study was conducted by scientists from the Birbal Sahni Institute of Palaeosciences, Lucknow, under the Department of Science and Technology.



 Focus: Examined hydrocarbon generation potential, highlighting that it depends on the concentration of organic matter within a source rock.

Distribution of prospective shale basins



About Shale Gas:

- **Definition:** Shale gas is a type of **natural gas** (mainly methane) found in **shale rock** formations.
- Extraction Method: Extracted through hydraulic fracturing (fracking), which involves injecting high-pressure water, sand, and chemicals to crack the shale rock.
- Guar Gum: A gum made from Cluster bean (Guar) seed is commonly used in this extraction process.
- Rock Characteristics: Shale is a fine-grained sedimentary rock formed from compacted clay, silt, mud, and organic matter over time. Shale deposits are found both at the Earth's surface and deep underground in ancient seas, deltas, lakes, and lagoons.
- Government Measures for Shale Gas Development:
 - Hydrocarbon Exploration and Licensing Policy (HELP) (2016): Introduced a uniform licensing regime for conventional and unconventional resources, including shale gas.
 - Permissions for PSUs: ONGC and Oil India Limited have been authorized to explore shale gas within their existing oil and gas blocks.
 - Environmental Management Guidelines: Specific guidelines are in place for environmental management during shale gas/oil exploration and production.
- These initiatives reflect India's commitment to tapping into unconventional hydrocarbon resources, with a focus on sustainability and environmental management.

GUJARAT WILL ESTABLISH A CARACAL BREEDING AND CONSERVATION CENTER IN KUTCH'S CHADVA RAKHAL REGION



- Gujarat will establish a Caracal Breeding and Conservation Center in Kutch's Chadva Rakhal region.
- Caracal Breeding and Conservation Center in Gujarat:
 - Location: The center will be established in the Chadva Rakhal region of Kutch, Gujarat.
 - **Purpose:** Aimed at the **breeding and conservation** of caracals, helping protect and increase their population in India.

About Caracal

- Characteristics:
 - Medium-sized wild cat, known for its quickness and ability to catch flying birds.
 - **Secretive** and mostly **nocturnal**, the caracal is **territorial** and typically lives alone or in pairs.
- Habitat: Prefers dry savannah, woodland areas, scrubland, and rugged terrain in mountainous regions.
- **Distribution:** Found across **Africa**, the Middle East, **Central Asia**, and **arid regions of Pakistan and India** (notably Rajasthan, Gujarat, and Madhya Pradesh).

Conservation Status and Efforts

- IUCN Status: Listed as Least Concern.
- Wildlife Protection Act, 1972: Protected under Schedule I in India, granting it the highest level of protection.
- Conservation Program: In 2021, the National Board for Wildlife and MOEFCC designated the caracal as critically endangered in India, adding it to the Species Recovery Program to promote its conservation.



 This center in Gujarat reflects ongoing efforts to secure the future of caracals in India by protecting their habitat and supporting population recovery.

AURORAS WERE CAPTURED AT INDIA'S HIGHEST OBSERVATORY IN HANLE, LADAKH



- Here's an overview of the **auroras** and the recent sighting in India:
- Recent Sighting:
 - Location: Auroras were recently captured at India's highest observatory in Hanle, Ladakh.
 - **Significance:** This rare phenomenon in Ladakh highlights the observatory's capacity to capture unique atmospheric events.
- About Auroras:
 - **Description:** Auroras are **multicolored lights** visible in the **thermosphere** layer of the atmosphere. They display vibrant hues, often green, pink, and purple, depending on the gases and the altitude of the reaction.
- Geographic Occurrence:
 - Frequent at high latitudes (near the poles) and are common in regions around the Arctic and Antarctic.
 - Less frequent in **mid-latitudes** and rare in equatorial areas.
- Types:
 - In the **Northern Hemisphere**: Known as **Aurora Borealis** or the "Northern Lights".
 - In the **Southern Hemisphere**: Known as **Aurora Australis** or the "Southern Lights".
- Cause: Result from the interaction between the solar wind and Earth's magnetic field. Charged particles from the Sun collide with oxygen and nitrogen atoms in the atmosphere, releasing energy as colorful lights.
- Significance: Auroras are a visual indication of Earth's electrical connection to the Sun, revealing the dynamic interactions within the planet's magnetic field and atmosphere.

 This rare observation in Hanle underlines India's growing observational capabilities in atmospheric and astronomical phenomena.

NAGARJUNA SAGAR SRISAILAM TIGER RESERVE TOPS IN INCREASE OF LEOPARD POPULATION



- According to EnviStats India-2024, the Nagarjuna Sagar-Srisailam Tiger Reserve (NSTR) has been ranked first among tiger reserves in India for hosting the largest leopard population.
- About Nagarjuna Sagar-Srisailam Tiger Reserve (NSTR):
 - Location: Situated in the Nallamala hill ranges, which are part of the Eastern Ghats in Andhra Pradesh.
 - Constituent Sanctuaries:
 - Rajiv Gandhi Wildlife Sanctuary
 - Gundla Brahmeswaram Wildlife Sanctuary
 - Natural Vegetation: Primarily Tropical Dry Deciduous Forests with an undergrowth of bamboo and grass, supporting diverse flora.
 - **Fauna:** Home to a variety of species, including:
 - **Tigers** (for which it is a designated reserve)
 - Leopards (notably, the largest population among tiger reserves)
 - Sloth Bears, Asiatic Wild Dogs, Jackals, Sambar Deer, Wild Boars, etc.
 - **River:** The **Krishna River** flows through the reserve, providing a crucial water source.
 - Waterfalls: NSTR is known for scenic waterfalls, including:
 - Ethpothala Falls
 - Pedda Dukudu
 - Gundam
 - Chaleswaram
- NSTR's diverse ecosystem and its importance for both tigers and leopards make it a key conservation site in India's efforts to protect large carnivores and their habitats.



POLEWARD SHIFT OF ATMOSPHERIC RIVERS



- Atmospheric rivers are moving towards **higher latitudes** due to **changes in sea surface temperatures** in the **eastern tropical Pacific**. This shift is causing notable changes in global weather patterns.
- About Atmospheric Rivers:
 - Definition: Atmospheric rivers are long, narrow bands in the atmosphere that transport a large portion of water vapor outside the tropics. They act like "rivers in the sky", carrying moisture over thousands of kilometers.
 - Importance: These rivers play a critical role in replenishing water supplies in regions they pass over, especially during winter storms.
 - Consequences of Shifting Atmospheric Rivers
- Subtropical Areas: May experience longer droughts and reduced water supplies, which would impact agriculture and water availability.
- **Higher Latitude Regions:** Likely to see **more extreme rainfall**, leading to **flooding** and **landslides** due to the increased moisture these regions now receive.
- Arctic Impact: Increased frequency of atmospheric rivers could accelerate sea-ice melting in the Arctic, contributing to global warming.
- This could also affect **Arctic wildlife**, altering ecosystems dependent on stable ice conditions.
- This shift in atmospheric rivers highlights the farreaching impacts of climate change on global weather systems, with potential consequences for water resources, agriculture, and Arctic ecosystems.

CENTRAL CONSUMER PROTECTION AUTHORITY ISSUES GUIDELINES FOR 'PREVENTION AND REGULATION OF GREENWASHING AND MISLEADING ENVIRONMENTAL CLAIMS'

 The Central Consumer Protection Authority (CCPA) has introduced guidelines under the Consumer Protection Act, 2019, aimed at combating greenwashing and promoting truthful environmental claims in advertising. Here are the key highlights of these guidelines.



Key Highlights of the Guidelines

- Definition of Greenwashing:
 - Greenwashing is identified as any deceptive or misleading practice that includes:
 - **Concealing**, omitting, or hiding relevant information.
 - Exaggerating, making vague, false, or unsubstantiated environmental claims.
 - The use of symbols or imagery that emphasize positive environmental aspects while downplaying or concealing harmful attributes.
- Applicability: These guidelines apply to all environmental claims made by businesses, ensuring accountability and accuracy in advertising.
- Transparency Requirements:
 - The guidelines prohibit the use of generic terms like "eco-friendly", "green", and "sustainable" without providing adequate, accurate, and accessible substantiation.
 - Businesses must provide detailed information regarding the **methodology** and **data** used to support environmental claims.
- Third-Party Certifications: Claims related to compostable, degradable, recyclable, climate-positive, etc., must be backed by statutory or independent third-party verification to ensure credibility.
- Aspirational or Futuristic Claims: Such claims can only be made when there are clear and actionable plans detailing how the objectives will be achieved, preventing vague promises that lack accountability.
- Importance:
 - The introduction of these guidelines addresses the increasing prevalence of misleading advertisements for "green" products.
 - By enforcing transparency and requiring substantiation for environmental claims, the CCPA aims to protect consumers from deception and promote genuine environmental sustainability efforts.
- This initiative not only supports informed consumer choices but also helps in advancing broader environmental goals.



KARAKORAM WILDLIFE SANCTUARY



 The recent clearance by the Standing Committee of the National Board for Wildlife (NBWL) for key road stretches passing through the Karakoram Wildlife Sanctuary (KWS) marks a significant development in the region. Here are some details about KWS:

About Karakoram Wildlife Sanctuary (KWS)

• Location:

- KWS is situated in the easternmost parts of the Karakoram range, which is part of the Northwestern Himalayas. It is located in the Leh district of Ladakh, India.
- The sanctuary is bordered to the north and west by international boundaries with China and Pakistan, respectively.

Geography:

- The region is primarily **semi-arid** and is characterized by a **cold desert** climate.
- It experiences heavy glaciation, contributing to its unique landscape.

• Rivers:

 The sanctuary is traversed by significant rivers, including the Nubra River and the Shyok River, which are vital for the local ecosystem.

Fauna:

- KWS is home to several endangered and iconic species, making it an important conservation area. The notable fauna includes:
 - **Snow leopard:** A key predator in the region, known for its elusive nature.
 - **Eurasian lynx:** A medium-sized wild cat adapted to cold mountainous environments.
 - Himalayan wolf: An apex predator, crucial for maintaining ecological balance.
 - **Tibetan antelope:** A migratory species known for its unique adaptations to the harsh climate.

THE NATIONAL BOARD FOR WILDLIFE DEFERRED ITS NOD FOR OIL EXPLORATION IN ASSAM'S HOLLONGAPAR GIBBON SANCTUARY

• The **National Board for Wildlife** has deferred approval for oil exploration in Assam's **Hollongapar**

Gibbon Sanctuary, which is a crucial habitat for the **Hoolock Gibbon**. Here's a detailed overview of the Hoolock Gibbon:



About Hoolock Gibbon

• **Species:** The Hoolock Gibbon is the only ape species found in India, notable for its unique characteristics and behaviors.

• Types:

- Western Hoolock Gibbon (Hoolock hoolock):
 - * Range: This species has a broader distribution and can be found across all states in Northeast India.
 - Conservation Status: It is listed as Endangered on the IUCN Red List due to habitat loss and fragmentation, poaching, and other humaninduced pressures.
- Eastern Hoolock Gibbon (Hoolock leuconedys):
 - Range: This species is more restricted and primarily inhabits specific pockets in Arunachal Pradesh and Assam.
 - Conservation Status: It is listed as Vulnerable on the IUCN Red List, facing similar threats as its western counterpart.

Habitat and Behavior:

- Habitat: Hoolock Gibbons typically reside in tropical and subtropical forests, where they play a significant role in the ecosystem as seed dispersers. They are arboreal and are known for their remarkable agility and vocalizations.
- Social Structure: Hoolock Gibbons are generally monogamous and live in small family groups. They are known for their distinctive calls, which can be heard across long distances, serving as a means of communication and territory establishment.

Conservation Efforts:

- The decision to defer oil exploration in the Hollongapar Gibbon Sanctuary highlights the importance of protecting this critical habitat for the Hoolock Gibbons.
- Ongoing conservation efforts are crucial for the survival of these apes, ensuring their habitats are preserved and threats from industrial activities are mitigated.



GLOBAL CORAL BLEACHING EVENT EXPANDS, NOW THE LARGEST ON RECORD



- The National Oceanic and Atmospheric Administration (NOAA) has reported that the ongoing mass coral bleaching event is now the most extensive on record, affecting approximately 77% of the world's coral reef areas.
- This alarming trend has surpassed previous records by over 11% and has occurred in about half the time compared to past events, primarily due to climate change leading to record-high ocean temperatures.

About Coral Bleaching:

- **Coral Basics:** Corals are marine organisms that form symbiotic relationships with microscopic algae known as **zooxanthellae**.
- These algae provide corals with essential nutrients through photosynthesis, while corals offer a protective environment and the compounds necessary for photosynthesis.
- Bleaching Process: Coral bleaching occurs when environmental stressors—such as rising temperatures, changes in light, or nutrient levels—cause corals to expel their symbiotic algae.
- This results in the loss of their color and vital nutrients, leaving them vulnerable to disease and mortality.

Historical Context:

- The first major bleaching event was reported in 1998, resulting in an estimated loss of 8% of the world's coral reefs.
- **14%** of the world's remaining corals are estimated to have died during the previous two significant global bleaching events (2010 and 2014-2017).
- The current fourth bleaching event was declared by NOAA in April 2024.

• Impact of Coral Bleaching:

Ecological Consequences:

- * Reduced biodiversity as coral reefs provide habitat for numerous marine species.
- Disruptions in the food chain, affecting fish populations and other marine life.

Socio-economic Impacts:

- Decline in the fisheries sector, which relies on healthy coral ecosystems.
- Reduced tourism, particularly in regions dependent on coral reefs for recreational activities like snorkeling and diving.

• Initiatives to Prevent Coral Bleaching:

• India:

- Coral species are protected under Schedule I of the Indian Wildlife (Protection) Act, 1972.
- The Coastal Regulation Zone (CRZ) Notification, 2019 and the Integrated Island Management Plan prohibit developmental activities and waste disposal in fragile coastal ecosystems.
- Use of innovative technologies like Bio-rock in the Gulf of Kutch to promote coral growth and resilience.

Global Initiatives:

- The Coral Research & Development Accelerator Platform established by G20 to enhance research and conservation efforts.
- The International Coral Reef Initiative (ICRI), of which India is a member, aims to promote sustainable management and conservation of coral reefs globally.

RAMGARH VISHDHARI TIGER RESERVE



 The recent death of a tigress and the disappearance of a cub in the reserve have impacted the tiger reintroduction plans.

• Ramgarh Vishdhari Tiger Reserve:

- **Status:** It is the fourth tiger reserve in Rajasthan and the 52nd in India.
- Location: Situated in Bundi district, in the southeastern part of Rajasthan, it includes characteristics of both the Vindhyan and Aravalli ranges.
- **Connectivity:** Linked with the buffer zones of Ranthambore and Mukundara Hills Tiger Reserves.



- **River:** The Mez River, a tributary of the Chambal, flows through the reserve.
- Flora: Major tree species include Dhok, Khair, and Amaltas.
- Fauna: Hosts Tigers, Panthers, Sloth Bears, among other species.

DISCOVERY OF A TROJAN ASTEROID (2019 UO14)

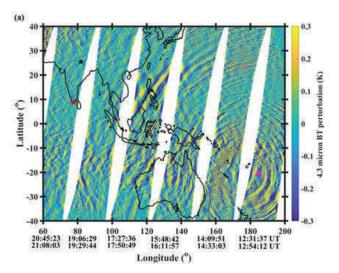


- The discovery of the Trojan asteroid 2019 U014 for Saturn confirmed that all four giant planets in our solar system have Trojan asteroids.
- Trojan asteroids are **celestial bodies that** occupy a stable Lagrange Point in a planet's orbit around the sun.
- The discovery of 2019 UO14 for Saturn confirmed that all four giant planets in our solar system have Trojan asteroids.
- Details about 2019 U014:
 - 2019 U014 is about 13 kilometres across, similar in size to Deimos, the smaller of Mars' two moons.
 - It takes about 30 years to revolve around the sun and is located about 60 degrees ahead of Saturn.
 - 2019 UO14 is likely to have an unstable orbit because of the gravitational influence of Saturn and Jupiter.
 - Researchers estimate that 2019 U014 has been a Trojan for about 2,000 years and will remain so for another 1,000 years.
- Other Trojan asteroids: Mercury and Venus are the only two major planets without any known associated Trojans.

CONNECTIONS ESTABLISHED BETWEEN VOLCANIC ERUPTION & IONOSPHERIC DISTURBANCES

- Recent findings on Volcanism and Space Weather by the Indian Institute of Geomagnetism, along with an overview of volcanic impacts:
- Key Findings of the Study:
 - Ionospheric Disturbance: Volcanic eruptions generate atmospheric gravity waves that lead to the formation of Equatorial Plasma Bubbles

- **(EPBs)**—localized depletions in plasma density in the equatorial ionosphere, usually occurring postsunset.
- Impacton Satellite Communication: The formation of EPBs can disrupt satellite communication and navigation systems, affecting satellite-reliant technologies.



Volcanism and Its Impacts:

- What is Volcanism?: A volcano is an opening in the Earth's crust through which lava, ash, and gases are expelled. Recent volcanic events include eruptions at Mount Ruang (Indonesia, 2024) and Whakaari/ White Island (New Zealand, 2024).
- Positive Impacts of Volcanic Activity
- **Short-term Climate Cooling:** Volcanic particles can temporarily cool the atmosphere by blocking some incoming solar radiation.
- **Geothermal Energy:** Volcanoes provide a renewable energy source, often benefiting nearby communities with **geothermal power**.
- Enhanced Soil Fertility: Volcanic ash improves soil fertility, aiding agriculture.
- **Mining Opportunities:** Magma brings valuable minerals (e.g., copper, gold) to the surface, providing mining potential.
- Other Benefits: Tourism and ecological benefits as volcanic ash is a natural fertilizer.

• Negative Consequences of Volcanic Activity:

- **Climate Impact:** Emission of dust, ash, and gases can affect climate patterns.
- **Natural Disasters:** Volcanic activity can trigger events like **tsunamis** (e.g., Tonga eruption, 2022).
- Damage to Life and Property: Volcanic eruptions often result in the destruction of lives, habitats, property, and landscapes.



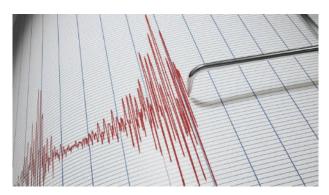
ROLE OF WETLANDS IN NATIONAL BIODIVERSITY STRATEGIES AT COP16



- The updated National Biodiversity Strategy and Action Plan (NBSAP) 2024-30 was launched at COP 16 of the Convention on Biological Diversity (CBD) in Colombia.
- Here's a summary of its highlights and structure:
 - Overview of NBSAP:
 - Purpose: NBSAP provides a comprehensive framework for biodiversity conservation, sustainable use of biological resources, and equitable sharing of benefits derived from them.
 - Background: The first NBSAP was created in 1999, with the National Biodiversity Action Plan (NBAP) formally adopted in 2008 and updated in 2014 to align with the Aichi Biodiversity Targets.
 - Key Highlights of NBSAP 2024-30:
 - Alignment with Global Framework: The NBSAP aligns with the Kunming-Montreal Global Biodiversity Framework (KMGBF) adopted in 2022, which aims to halt and reverse biodiversity loss by 2030.
 - National Biodiversity Targets: The plan includes 23 targets grouped into three main themes.
 - Reducing Threats to Biodiversity
 - ***** Ensuring Sustainable Resource Use
 - Enhancing Implementation Tools
 - Implementation Structure:
 - National Level: The Ministry of Environment, Forest, and Climate Change (MoEFCC) and 22 other ministries/departments lead implementation, with the National Biodiversity Authority providing oversight.
 - State Level: State Biodiversity Boards and Union Territory Biodiversity Councils manage implementation at the regional level.

- Local Level: Biodiversity Management Committees oversee local initiatives (as shown in the infographic).
- Capacity Building and Resource Mobilization
- Capacity Building: Efforts will include need and gap assessments, target group identification, expert consultations, and training programs for skill and knowledge development.
- ❖ Resource Mobilization: India is recognized as a leading implementer of the Biodiversity Finance Initiative (BIOFIN), a UNDP-European Commission initiative to improve biodiversity financing.
- The NBSAP encourages private sector and donor support through mechanisms like Green Bonds, Green Funds, and Payment for Ecosystem Services (PES) to support biodiversity initiatives.

MAGNITUDE 5.7 EARTHQUAKE STRIKES HALMAHERA SEA IN INDONESIA



- A recent 5.7 magnitude earthquake struck the Halmahera Sea near Halmahera Island in Indonesia, as reported by the German Research Centre for Geosciences.
- About the Halmahera Sea:
 - Location: The Halmahera Sea is situated near Halmahera Island, Indonesia, forming part of the eastern entry route of the Indonesian Throughflow (ITF) passages.
 - Indonesian Throughflow (ITF): The ITF is a critical oceanic link between the Pacific and Indian Oceans, with two main entry passages—the Western and Eastern routes.
 - Halmahera Island: This is the largest island in the Moluccas group, positioned between the Molucca Sea (to the west) and the Pacific Ocean (to the east).

INDIA'S FIRST EVER GREAT INDIAN BUSTARD HATCHED THROUGH ARTIFICIAL INSEMINATION

 Artificial insemination of the Great Indian Bustard was achieved at the National Breeding Centre in



Jaisalmer, Rajasthan, under the Bustard Recovery Program.



Bustard Recovery Program:

- Initiation: Started in 2016 for a period of five years and later extended from 2021 to 2024.
- Objectives:
 - Conservation Breeding: Focuses on increasing the population of GIBs in captivity.
 - Capacity Building & Advocacy: Raises awareness among stakeholders and policymakers about bustard conservation.
 - Bustard-Friendly Land Use: Encourages landuse practices that support bustard habitats.

• About the Great Indian Bustard (Godawan):

• **Habitat:** Mostly found in **Rajasthan** and **Gujarat** with small populations in **Maharashtra**, **Karnataka**, and **Andhra Pradesh**.

Conservation Status:

- IUCN Status: Critically Endangered
- Wildlife Protection Act, 1972: Listed in Schedule
- CITES: Included in Appendix I
- Population: Fewer than 150 individuals remain, primarily restricted to India.

Behavior and Characteristics:

- Species: A grassland bird, endemic to the Indian subcontinent.
- Distinct Features: Recognizable by a black crown on the forehead; males have a larger black crown.
- Unique Courtship Display: Males have a gular pouch used to produce a loud humming sound to attract females.
- Diet: Omnivorous, feeding on grass seeds, insects (such as grasshoppers and beetles), and occasionally small rodents and reptiles.

• Major Threats:

- Hunting and Habitat Loss: Both have significantly reduced GIB populations.
- Power Line Collisions: Power lines pose a major threat as they cross GIB habitats.

 Agricultural Expansion: Encroachment on grasslands for agriculture disrupts bustard habitats.

CLOUD CHAMBER UNDER MISSION MAUSAM



 India is set to enhance its understanding of monsoon and weather systems by establishing a cloud chamber at the Indian Institute of Tropical Meteorology (IITM) in Pune, as part of Mission Mausam.

• About the Cloud Chamber:

- Purpose: The cloud chamber will enable detailed studies of cloud formation and behaviour, which is particularly relevant for understanding the Indian monsoon.
- Structure: It's a closed cylindrical drum where water vapor and aerosols are injected.
- Functionality: The chamber allows scientists to observe seed particles that form cloud droplets and ice particles under controlled humidity and temperature. It also has convection properties to simulate cloud physics relevant to Indian weather conditions.
- India's Experience with Cloud Seeding:
 - CAIPEEX (Cloud Aerosol Interaction and Precipitation Enhancement Experiment): India has prior experience with cloud seeding through CAIPEEX, which showed:
 - Rainfall Increase: An estimated increase in rainfall by up to 46% (±13%) in some locations.
 - Coverage Area: An approximate 18% (±2.6%) increase over a 100-square-kilometer area, particularly in rain shadow regions.

• Mission Mausam:

- Objective: Mission Mausam aims to improve weather forecasting capabilities and manage specific weather phenomena in India, including:
 - Rainfall enhancement or suppression
 - Hail and fog management
 - Lightning strike mitigation



BRITAIN TO BECOME FIRST G7 COUNTRY TO END COAL POWER AS LAST PLANT CLOSES



- The closure of the last coal-based power plant marks a historic end to 142 years of coal-generated electricity, which previously met about 40% of electricity needs in 2012.
- The world's first coal plant opened in London in 1882, while India's first major thermal power plant, the Hussain Sagar Thermal Power Station, was installed in Hyderabad in 1920.
- Reasons for Phasing Out Coal-Based Power Production:
 - Pollution: The energy sector contributes to around 75% of global greenhouse gas emissions (IEA), making it a critical area for emission reduction.
 - Existing Commitment Limitations: According to the International Energy Agency (IEA), achieving the Paris Agreement target (limiting temperature rise to 1.5°C) is challenging, even if current pledges are met.
 - Renewable Feasibility: Renewable energy technologies have become more scalable, with increasing investments in research, energy storage, and other advancements making them viable alternatives.
- Challenges in Transitioning Away from Coal:
 - Heavy Coal Dependence: Fast-growing, low- and middle-income countries like India and China still rely heavily on coal, not only for energy but also for employment.
 - **Economic Impacts:** Coal-fired plants in countries like India and China are relatively **new** investments, making a rapid shift economically challenging.
 - Renewable Energy Limitations: Issues such as intermittency, high initial capital costs, and sometimes lack of policy clarity make renewable adoption slower.
- Coal and Renewable Energy Status in India:
 - Current Coal Usage: As of September 2024, coal constitutes around 70% of India's total electricity generation capacity.
 - Net Zero Target: India aims to achieve net zero emissions by 2070.

- Key Government Initiatives:
 - National Green Hydrogen Mission
 - PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan) to support clean energy in rural areas
 - PM Surya Ghar to promote solar energy usage at homes
 - PLI (Production-Linked Incentive) Schemes for solar PV module manufacturing

LIVESTOCK CENSUS: EMPOWERING FARMERS AND DRIVING RURAL PROSPERITY



- The Union Minister of Fisheries, Animal Husbandry, and Dairying, Rajiv Ranjan Singh, launched the 21st Livestock Census in India.
- This five-year exercise aims to provide updated data on the country's livestock population, which is crucial for addressing key issues such as disease control, breed improvement, and enhancing rural livelihoods.
- Key Highlights of the 21st Livestock Census:
 - Scope and Duration: The census will be conducted from October 2024 to February 2025 and aims to cover over 30 crore households across all states and Union Territories, including nomadic communities and pastoralists
 - Data Collection Innovations: This census introduces digital advancements, including a mobile application for data collection and real-time monitoring through a web-based dashboard.
 - These innovations are expected to enhance the accuracy and efficiency of data gathering.
 - Species Covered: The census will collect data on 15 livestock species, excluding poultry, such as cattle, buffalo, sheep, goats, pigs, and more. Additionally, it will account for various poultry species like fowl and ducks.
 - Indigenous Breeds: It will gather information on 219 indigenous breeds recognized by the Indian Council for Agricultural Research-National Bureau of Animal Genetic Resources (ICAR-NBAGR). For the first time, data on livestock holdings by pastoralists will be independently collected.

• Employment Impact:

- Approximately one lakh field officials, primarily veterinarians and para-veterinarians, will participate in this enumeration process.
- The census is expected to provide insights that can help uplift rural livelihoods and improve animal health.



• Importance of the Census:

- The 21st Livestock Census is seen as a critical exercise that informs national strategies for food security, poverty alleviation, and rural development.
- The data collected will help shape policies aimed at sustainable growth in the livestock sector, which plays a significant role in nutrition, employment, and income generation for millions of households.

FOSSIL FUEL EXPANSION THREATENS CORAL TRIANGLE BIODIVERSITY



- At the 16th Conference of Parties (COP16) to the Convention on Biological Diversity (CBD), a report was released highlighting the significance and urgent conservation needs of the Coral Triangle.
- About the Coral Triangle:
 - Geography: Encompasses Brunei, Malaysia, Singapore, Indonesia, Papua New Guinea, Solomon Islands, and Timor-Leste and is located in tropical waters of Southeast Asia and Melanesia.
 - **Biodiversity**: Known for its incredible diversity, the Coral Triangle is home to:
 - * 76% of the world's coral species
 - Over 2,000 species of reef fish
 - **Six** of the world's seven marine turtle species
 - Human Dependence: Supports 120 million people who rely on its ecosystems for food and income, earning the area the nickname "the Amazon of the seas".
- Threats Facing the Coral Triangle:
 - Oil and Gas Exploration: Over 100 offshore oil and gas blocks operate within the Coral Triangle, posing significant threats to delicate coral reefs, mangroves, and seagrasses.
 - Noise Pollution: Shipping and exploration activities produce noise that harms marine life by disrupting behaviors, damaging hearing, and masking natural sounds critical for marine communication and navigation.
 - Recommendations from the Report:
 - Moratorium on Oil and Gas Development: Implement a ban on new fossil fuel projects while phasing out existing operations in the Coral Triangle.
 - Special Protection Status: Designate the Coral Triangle as a Particularly Sensitive Sea Area to

afford it stronger protections against maritime activities detrimental to its ecosystems.

GITAGS

EIGHT PRODUCTS USED BY ASSAM TRIBE GRANTED GI TAG



- Recently, the Geographical Indications Registry in Chennai has granted the GI tag to eight products from the Assam region, including traditional food items, cultural textile and several unique varieties of rice beer.
- New GI-Tagged Products from Assam:
 - Unique Varieties of Rice Beer
 - **1. Bodo Jou Gwran:** Known for its **high alcohol content** (around 16.11%), making it the strongest rice beer among Bodo community varieties.
 - **2. Maibra Jou Bidwi** (also known as *Maibra Jwu Bidwi* or *Maibra Zwu Bidwi*): A **welcome drink** for Bodo tribes, made by fermenting half-cooked rice (*mairong*) with minimal water and adding *amao*, a yeast source, to promote fermentation.
 - 3. **Bodo Jou Gishi:** Another **traditional rice-based alcoholic beverage**, made through fermentation.

Traditional Food Products:

- **1. Bodo Napham:** A popular fermented fish dish, prepared **anaerobically in a sealed container** over two to three months.
- **2. Bodo Ondla:** A **rice powder curry** flavored with garlic, ginger, salt, and alkali, commonly enjoyed by the Bodo community.
- 3. **Bodo Gwkha** (also known as *Gwka Gwkhi*): Prepared during the **Bwisagu festival**, a traditional dish specific to Bodo celebrations.
- 4. **Bodo Narzi:** A **semi-fermented dish made with jute leaves** (*Corchorus capsularis*), rich in Omega-3 fatty acids, vitamins, and minerals like calcium and magnesium.

• Cultural Textile:

- **Bodo Aronai**: A **small, traditional cloth** (1.5-2.5 meters in length and 0.5 meter wide), known for its intricate patterns and cultural significance.
- These GI tags recognize the unique cultural and culinary heritage of the Bodo community in Assam, preserving traditional practices and promoting regional identity.



4

Economy

WHITE GOODS

Department for Promotion of Industry and Internal Trade (DPIIT) and its call for white goods manufacturers to engage with the production-linked incentive (PLI) scheme.

White Goods

Large household appliances (e.g., stoves, refrigerators, washing machines)

Traditionally white, though now available in various colors

Durable, built to withstand frequent use

Also refers to white fabrics

Brown Goods

Lightweight electronic consumer durables

Primarily used for entertainment, communication, and convenience

Includes electronic components; focuses on delivering audio, video, and data services

Overview of DPIIT's Initiative

 The DPIIT is encouraging white goods manufacturers to actively participate in the PLI scheme to avail of fiscal benefits. This move aims to boost production and enhance the competitiveness of the sector.

Definition of White Goods

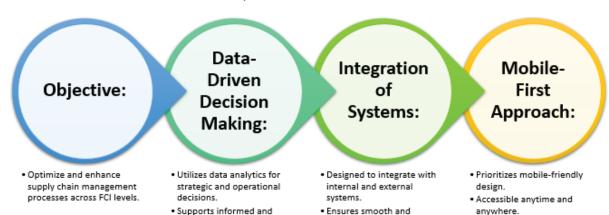
- **Traditional Definition**: White goods primarily refer to large household appliances, such as:
 - Refrigerators
 - Freezers
 - Washing machines
 - Stoves
- Origin of the Term: The term "white goods" originated from the fact that these appliances were originally available only in white.

Modern Interpretation

- Colour Variations: While these appliances are now available in various colours, they continue to be collectively known as white goods.
- Broader Connotations:
 - **Textiles**: In the context of fabrics, white goods can denote home textiles made from white base materials, including:
 - Curtains
 - Towels
 - Bed sheets
 - Alcoholic Beverages: Within the beverage industry, "white goods" can refer to colourless spirits, such as:
 - Vodka
 - Gin

ANNA DARPAN PROJECT

The Food Corporation of India (FCI) has recently selected **Coforge Limited as the system integrator (SI)** for its digital transformation initiative, the **Anna DARPAN Project**.



effective management.

About the Anna DARPAN Project

The Anna DARPAN Project is aimed at **optimizing and enhancing the supply chain management** processes across various levels of the FCI. The system will focus on improving overall efficiency and productivity through an interactive and user-friendly interface.

Key highlights of the project include

- Data-Driven Decision Making: The system will utilize data analytics to support strategic and operational decisions, enabling more informed and effective management.
- **Integration of Systems**: Anna DARPAN will be designed to integrate with both internal and external systems, ensuring smooth and seamless operation across different platforms.
- **Mobile-First Approach**: A priority will be given to a mobile-first design, making the system accessible at any time and from anywhere.

Coforge will handle the **end-to-end design, development, implementation, and maintenance** of the platform, ensuring it operates within a cutting-edge IT environment. The system will be hosted on a **cloud-based platform** powered by a **service mesh architecture**, which will enable seamless communication between microservices.

MONETARY POLICY COMMITTEE (MPC)

The Central government has recently appointed new members to the MPC with immediate effect.

About the MPC

- **Establishment**: The MPC was formed following a MemorandumofUnderstandingbetweenthegovernment and the Reserve Bank of India (RBI) regarding the **new inflation-targeting monetary policy framework**.
- Legal Framework: The Finance Act, of 2016 amended the Reserve Bank of India Act, of 1934, establishing a statutory and institutionalized framework for the MPC.

• **Constitution**: Under Section 45ZB of the amended RBI Act, the central government is authorized to constitute a six-member MPC.

Functions

platforms.

seamless operations across

- The MPC is responsible for setting the benchmark policy rate (repo rate) to control inflation within a specified target range.
- It replaced the previous Technical Advisory Committee arrangement.

Composition

- The MPC consists of six members:
 - **Chairperson**: RBI Governor
 - **Deputy Governor**: RBI Deputy Governor in charge of monetary policy
 - Official Nominee: One official nominated by the RBI Board
 - Government Representatives: Three members representing the Government of India
- **Tenure**: The external members serve a term of four years.

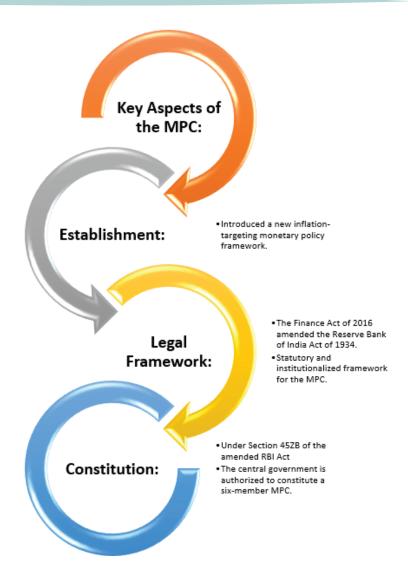
Meeting Protocol

- **Quorum**: A minimum of four members is required for a meeting, including at least one of the following:
 - The Governor
 - In the Governor's absence, the Deputy Governor who is a member of the MPC
- Decision-Making: Decisions are made based on a majority vote. In the event of a tie, the RBI Governor has a second or casting vote.
- **Binding Decisions**: The decisions of the MPC are binding on the RBI.

Support Structure

• The RBI's Monetary Policy Department (MPD) assists the MPC in formulating monetary policy.





PM INTERNSHIP SCHEME

Launch: The Prime Minister's Internship Scheme was recently launched, following an announcement by the Union Finance Minister during the Budget speech.

About the PM Internship Scheme

- Objective: Aim to enhance youth employability in India by providing hands-on exposure to real-world business environments.
- **Transformative Opportunity**: Seeks to bridge the skills gap and promote sustainable growth in India.
- **Target**: Plans to offer internship opportunities to **one crore youth** over five years in the **top 500 companies**.
- Implementation: The pilot project will be managed through an online portal by the Ministry of Corporate Affairs (MCA).

Financial Support

• **Stipend**: Interns will receive a monthly stipend of ₹4,500 from the central government via **Direct Benefit Transfer (DBT)**.

- **Company Contribution**: An additional ₹500 will be provided by the company's **Corporate Social Responsibility (CSR)** fund.
- One-Time Grant: A one-time grant of ₹6,000 will be provided upon joining.
- Insurance Coverage: Interns will be covered under the PM Jeevan Jyoti Bima Yojana and PM Suraksha Bima Yojana.

Internship Duration

• **Period**: The internship lasts for **one year**.

Eligibility Criteria

- **Age**: Candidates must be aged between **21 and 24 years** and not engaged in full-time employment.
- Education: Must have passed class 10 or higher.
- Exclusions:
 - Individuals from families with government jobs.
 - Post-graduates.
 - Graduates from premier institutes like IIT, IIM, or IISER, and those with CA or CMA qualifications.



Exclusions: Employment: Education: Age: Not engaged in Individuals from Between 21 and Must have passed full-time families with 24 years and class 10 or higher. employment. government jobs. Post-graduates, CA or CMA qualifications. Graduates from premier institutes like IIT, IIM, or IISER Candidates from households earning ₹8 lakh or

 Candidates from households earning ₹8 lakh or more in 2023-24.

Benefits of the Scheme

- On-the-Job Training: Provides practical training to youth and exposure to real-life work environments.
- Industry Advantage: Helps create a pipeline of skilled, work-ready youth for employment opportunities in both large and micro, small, and medium enterprises.

CENTRAL CONSUMER PROTECTION AUTHORITY

About CCPA

- Established under the Consumer Protection Act, 2019, which came into force on July 20, 2020.
- Replaced the **Consumer Protection Act**, **1986**.
- Aims to **protect consumer rights**, curb unfair trade practices, and stop misleading advertisements.

Nodal Ministry and Role

- Nodal Ministry: Ministry of Consumer Affairs, Food & Public Distribution.
- Role:
 - Protect, promote, and enforce consumer rights.
 - Prevent unfair trade practices.
 - Ensure that **no false or misleading advertisements** are made or published.

Composition of CCPA

• Headed by a **Chief Commissioner**.

- Supported by two Commissioners:
 - One handles goods-related matters.
 - The other focuses on **services-related matters**.

more in 2023-24.

Powers of CCPA

- The CCPA can:
 - **Intervene** to prevent consumer detriment and initiate **class action** (e.g., recall, refund, return of products).
 - Has an **investigation wing** led by a Director-General.
 - Take suo-moto actions, cancel licenses, and impose penalties for misleading advertisements.

MLALAD FUND

 The Delhi Cabinet approved a 50% hike in MLA-LAD funds, increasing the annual allocation for legislators from ₹10 crore to ₹15 crore.

About MLA-LAD Fund

- Modelled after MPLAD: Based on a similar scheme for MPs (Members of Parliament), it provides funding for local development.
- **MLAs do not directly receive funds**: They recommend projects for their constituencies under the scheme.

Purpose of the Scheme

- The scheme focuses on durable infrastructure works, such as:
 - Repairing roads.
 - Building community centres.
 - Developing parks.



- Installing streetlights.
- Laying sewer lines in colonies.

Project Guidelines

- Developmental nature: The projects should be based on locally felt needs.
- **Time-bound**: The work should be completed within **one financial year**.
- Durable assets: The projects must lead to the creation of durable, long-term assets.

Allocation Process

- Each MLA can recommend projects to the **Deputy** Commissioner of their district.
- The amount is released as **Grant-in-aid**, and the funds are utilized by the district administration.

ABOUT E-MIGRATE PORTAL

 Purpose: An online platform to facilitate and manage the migration of Indian workers seeking employment abroad.



- Goal: Provide a safe and transparent framework for migrant workers, aligning with the United Nations' Sustainable Development Goal 10 for orderly and responsible migration.
- Services Offered:
 - Information access for potential migrants.
 - Documentation support.
 - Helpline assistance.
 - Integration with various services and awareness campaigns.
 - Promotes safe and legal mobility channels for Indian migrants.

Features

 24/7 Multilingual Helpline: Offers support to ensure timely resolution of issues faced by workers abroad, especially in the Gulf region.

- **Feedback Mechanism**: Allows workers to provide feedback for continuous improvement of services.
- **Integration with Digilocker**: Enables secure and paperless document submission, enhancing efficiency.
- Partnership with Common Service Centres (CSCs): Expands immigration services to rural areas in local languages, improving accessibility for all users.
- **Job-Seeker Support**: Provides a one-stop marketplace for overseas employment opportunities, helping workers find jobs abroad.

EMPLOYEES' DEPOSIT-LINKED INSURANCE SCHEME, 1976

- Launch Year: Launched by the Government in 1976.
- Objective: Provide social security benefits to private sector employees where such benefits are not commonly offered by employers.



- **Administration**: Managed and administered by the Employees Provident Fund Organisation (EPFO).
- **Coverage**: Applicable to all organizations registered under the Employees Provident Fund (EPF) and Miscellaneous Provisions Act, 1952.
- **Integration**: Works in combination with the EPF and the Employees' Pension Scheme (EPS).

Benefits

- **Life Insurance Cover**: Provides term life insurance coverage on the life of the member employee.
- **Benefit Determination**: The benefit amount is decided based on the last drawn salary of the employee.
- **Lump-Sum Payment**: The registered nominee receives a lump-sum payment in the event of the EPF member's death during service.
- **Nominee Registration**: The nominee registered in the EDLI scheme is the same as in the EPF scheme.

Features

- Maximum Assured Benefit: Up to ₹7 lakh payable to the nominee or legal heir if the member dies while in service.
- Minimum Assurance Benefit: ₹2.5 lakh if the deceased member was continuously employed for 12 months before death.
- **Cost-Free**: Life insurance benefits for EPFO members is provided free of cost for PF/EPF account holders.
- **Employer Contribution**: Minimal contribution of 0.5% of the employee's monthly wages (up to a wage ceiling of ₹15,000); no contribution required from the employee.
- Auto-Enrolment: PF members are automatically enrolled in the EDLI scheme.
- **Direct Benefit Transfer**: Benefits are directly credited to the bank account of the legal heir or nominee.

SWIFT SYSTEM

Following the beginning of the war in **Ukraine**, **Russia** was expelled from the SWIFT system, prompting calls for alternative payment systems.

- **Full Name**: Society for Worldwide Interbank Financial Telecommunication (SWIFT).
- **Type**: Member-owned cooperative providing secure financial transactions.
- **Establishment**: Founded in 1973 by 239 banks from 15 countries.
- **Purpose**: A network that enables banks to communicate securely, primarily to instruct fund transfers between accounts.

Functionality

- **International Payments**: SWIFT is the largest and most streamlined method for international payments and settlements.
- Bank Identifier Code (BIC): Each financial organization is assigned a unique code (8 or 11 characters) for identification.

- Standardization: SWIFT standardizes communication protocols to ensure reliable cross-border transactions, reducing risks and inefficiencies in international banking.
- Role: Although critical to global financial infrastructure, SWIFT is not a financial institution and does not hold or transfer assets.

Operational Details

- **Headquarters**: Located in La Hulpe, Belgium.
- Oversight: Governed by central banks of G10 countries, the European Central Bank, and the National Bank of Belgium.
- **Membership**: Represents around 3,500 member organizations.
- **Governance**: Shareholders elect a board of 25 directors to oversee the SWIFT system.

Economic Impact

- **Facilitation**: SWIFT transmits essential transaction details, including recipient account information and transfer amounts.
- Sanctions Tool: Exclusion from SWIFT serves as an economic sanction against countries condemned by the global community, limiting their ability to conduct international financial transactions.

MUSANED PLATFORM

- **Type**: Digital platform launched by Saudi Arabia.
- **Purpose**: Aims to ensure wage protection and uphold the human rights of expatriate workers in the domestic (household) work sector.

Features

- **Employment Contracts**: Foreign workers **can check existing employment contracts and** follow updates via a dedicated Musaned labor app.
- Embassy Access: Foreign embassies have "view access" to the system, allowing them to see details related to their citizens working in Saudi Arabia (e.g., employer name, location, endorsed contract).
- Dispute Resolution: Enables foreign missions to resolve labour disputes more efficiently by having access to relevant information.
- **Regional Benefit**: Benefits at least 10 African countries (e.g., Sudan, Ethiopia, Uganda, Egypt, Kenya) and nine Asian countries (e.g., India, Bangladesh, Pakistan, Vietnam, Philippines, Sri Lanka).
- Linkages: This can be linked with contract insurance and health benefits for workers.
- **Human Rights Protection**: Aims to protect human rights and provide a stable working environment for both employees and employers.
- **Wage Protection System**: Ensures employers fulfil their obligation to pay monthly wages to workers.
- **Financial Transaction Tracking**: Tracks financial transactions between employers and foreign workers to ensure compliance with contractual obligations.



Schemes in News

NAMASTE SCHEME



Recent government data under the NAMASTE scheme reveals significant insights into the demographics of manual scavengers and sanitation workers in India.

Key Findings

- Data from over 3,000 Urban Local Bodies (ULBs) indicates that 92% of the 38,000 manual scavengers and workers engaged in hazardous cleaning belong to marginalized communities:
- Objectives of the NAMASTE Scheme:

- Scheduled Castes (SC)
- Scheduled Tribes (ST)
- Other Backward Classes (OBC)
- About National Action for Mechanised Sanitation Ecosystem (NAMASTE) Scheme:
 - Launched by the Ministry of Social Justice and Empowerment and the Ministry of Housing and Urban Affairs.
 - Aims to ensure the safety and dignity of sanitation workers, particularly those involved in hazardous tasks like sewer and septic tank cleaning.
 - The scheme focuses on mechanization, skill development, and providing safety equipment.
 - The NAMASTE scheme aims to create a national database for identifying Sewer and Septic Tank Workers (SSWs) and provide them with a unique NAMASTE ID.
 - The initiative includes training for ULB officials on profiling SSWs and using the NAMASTE mobile application.
 - The scheme will be **implemented over three years**, from FY 2023-24 to FY 2025-26, **with a budget** allocation of approximately ₹349.73 crores.



SAMAJIK ADHIKARITA SHIVIRS



- Union Minister Dr. Virendra Kumar is set to inaugurate the 'Samajik Adhikarita Shivirs' at 75 locations across India.
- This initiative aims to distribute assistive devices and aids to persons with disabilities (Divyangjan), enhancing their quality of life and promoting inclusivity.
- Objective: The 'Samajik Adhikarita Shivirs' are organized to provide various assistive devices to empower individuals with disabilities, enabling them to lead more independent and dignified lives.
- The camps will be held at 75 different locations throughout the country, ensuring widespread reach and accessibility.
- Assistive Devices: The distribution will include a range of devices such as:
 - Motorized tricycles
 - Hand-propelled tricycles
 - Folding wheelchairs
 - Walkers and walking sticks
 - Braille kits
 - Hearing aids
 - Prosthetics and calipers
- Implementation: The initiative is part of the Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP) scheme, managed by the Department of Empowerment of Persons with Disabilities (DEPwD).
- This program underscores the government's commitmenttothewelfareofmarginalized communities, particularly those belonging to Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC), who constitute a significant portion of manual scavengers and hazardous workers.

INTERNATIONAL STRATEGIC ENGAGEMENT PROGRAMME (IN-STEP)



Recently, the Vice-President of India addressed participants at the inaugural International Strategic Engagement Programme (IN-STEP) held in **New Delhi**.

- IN-STEP is a two-week strategic engagement program organized by the National Defence College (NDC) under the aegis of the National Security Council Secretariat.
- The program includes participation from international delegates representing 21 countries and 8 Indian officers.
- The Vice-President emphasized that IN-STEP is a significant initiative aimed at fostering global cooperation and understanding on strategic matters.
- It serves as a platform for discussing diverse topics, including geopolitical dynamics, security challenges, diplomatic negotiations, and conflict resolution strategies.
- The Vice-President reiterated that India's rise in economy and technology contributes to global peace and harmony.

• Challenges in Security:

- The address acknowledged the evolving nature of security threats, moving beyond conventional warfare to include technological advancements and disruptive technologies.
- He pointed out the importance of preparedness for war as a means to secure peace.

Diversity of Perspectives:

- The program's unique aspect is its convergence of perspectives from various sectors, including the Indian Armed Forces, paramilitary forces, foreign services, and international delegates.
- This diversity is seen as essential for fostering international cooperation amidst differences.



 The Vice-President expressed confidence that participants would engage in fruitful discussions leading to greater understanding and resolutions beneficial to all involved.

CABINET APPROVES NATIONAL MISSION ON EDIBLE OILS

- The Union Cabinet has approved the National Mission on Edible Oils – Oilseeds (NMEO-Oilseeds), a strategic initiative aimed at boosting domestic oilseed production and achieving self-sufficiency in edible oils.
- This mission will be implemented over a seven-year period from 2024-25 to 2030-31, with a financial outlay of Rs 10,103 crore.



Objectives of NMEO-Oilseeds

Increase Production

The mission aims to enhance primary oilseed production from 39 million tonnes in 2022-23 to 69.7 million tonnes by 2030-31.

Cultivation Expansion

It plans to expand oilseed cultivation by an additional 40 lakh hectares, particularly targeting rice and potato fallow lands.

Self-Reliance Goal

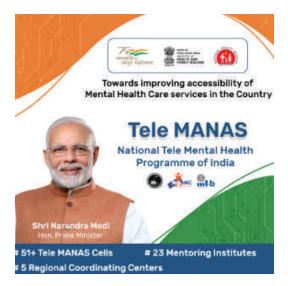
The initiative is part of the broader goal of achieving Atmanirbharta (self-reliance) in edible oils, addressing India's heavy reliance on imports, which currently account for over 50% of its annual edible oil requirement.

- Key Focus Areas:
 - Primary Oilseed Crops: The mission will prioritize crops such as rapeseed-mustard, groundnut, soybean, sunflower, and sesame, while also improving extraction efficiency from secondary sources like cottonseed and rice bran.
- Value Chain Development: Over 600 value chain clusters will be established across 347 districts, managed by farmer producer organizations (FPOs) and cooperatives. This will provide farmers with access to high-quality seeds, training on Good Agricultural Practices (GAP), and advisory services.



- Technological Integration: The mission will leverage advanced technologies, including genome editing for developing high-yielding seed varieties.
- **SATHI Portal:** To ensure the timely availability of quality seeds, the Mission will introduce an Online 5-year rolling seed plan through the 'Seed Authentication, Traceability & Holistic Inventory (SATHI)' Portal.

TELE MANAS



- The Jawaharlal Nehru Institute of Postgraduate Medical Education and Research (JIPMER) has launched the TeleMANAS (Tele Mental Health Assistance and Networking Across States) toll-free helpline, aimed at providing crucial counseling services for individuals experiencing mental distress.
- This initiative is part of India's broader efforts to enhance mental health support through the National Tele Mental Health Programme.

Key Features of TeleMANAS

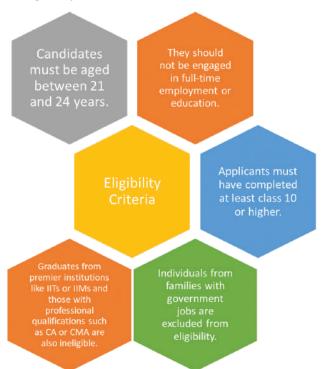
- **Toll-Free Helpline**: Individuals can access mental health support by calling the toll-free numbers 14416 or 1-800-891-4416, which offer assistance in 20 languages, making the service accessible to a diverse population.
- 24/7 Availability: The helpline operates round-theclock, ensuring that individuals can seek help at any time.
- Wide Reach: TeleMANAS has established 51 operational cells across all states and union territories, facilitating communication between callers and trained mental health professionals.

PM INTERNSHIP SCHEME

 The Ministry of Corporate Affairs has recently launched the Prime Minister's Internship Scheme, which was announced during the Union Budget 2024.



- This initiative aims to provide internship opportunities to one crore youth across India, enhancing their employability and bridging the gap between education and practical work experience.
- Companies participating in this pilot were selected based on their corporate social responsibility (CSR) spending over the last three years, ensuring participants are placed with socially and ethically responsible organizations.
- The scheme was officially launched on October 3, 2024, with registrations opening for candidates on October 12, 2024.
- Over the next five years, the scheme aims to **create internships in the top 500 companies,** targeting a total of 1 crore internships.
- Interns will receive a monthly stipend of ₹4,500 from the government, supplemented by an additional ₹500 from the companies through their Corporate Social Responsibility (CSR) funds.
- Eligibility Criteria:





PM GATI SHAKTI: TRANSFORMING INDIA'S INFRASTRUCTURE AND CONNECTIVITY



- Recently, Prime Minister Narendra Modi praised the successful completion of three years of the PM GatiShakti National Master Plan, calling it a transformative step in India's infrastructure growth.
- Launched on October 13, 2021, the initiative aims to revolutionize India's infrastructure development by providing multimodal connectivity and enhancing the efficiency of various economic sectors.

About PM Gati Shakt

- The PM GatiShakti National Master Plan is a₹100 lakh crore initiative designed to integrate and streamline infrastructure planning across multiple sectors, including railways, roads, ports, and airports.
- Digital Master Planning Tool: Developed by the Bhaskaracharya National Institute for Space Applications and Geoinformatics (BISAG-N), the plan utilizes a dynamic Geographic Information System (GIS) platform to facilitate real-time data integration from various ministries and departments.
- Comprehensive Database: The plan incorporates over 1,600 data layers from 44 central ministries and 36 states/UTs, enabling coordinated execution of infrastructure projects and reducing inter-ministerial obstacles.

Six Principles of PM Gati Shakti



SARTHIE 1.0 INITIATIVE



- The SARTHIE 1.0 initiative was recently launched by the Department of Social Justice and Empowerment (DoSJE) in collaboration with the National Legal Services Authority (NALSA).
- This initiative aims to empower disadvantaged communities in India, including Scheduled Castes (SCs), Other Backward Classes (OBCs), senior citizens, transgender persons, victims of alcoholism and substance abuse, and individuals engaged in begging, as well as denotified and nomadic tribes.
- Objective: SARTHIE 1.0 focuses on raising awareness and providing legal support to ensure effective access to social welfare schemes designed for marginalized groups. This aligns with the United Nations 2030 Agenda for Sustainable Development, particularly goals aimed at eradicating poverty and reducing inequality.
- Awareness Generation: The initiative seeks to bridge the awareness gap regarding various social welfare programs, ensuring that vulnerable communities are informed about their rights and available resources.
- Legal Assistance: Through this collaboration, SARTHIE 1.0 will facilitate legal aid and literacy programs to help these communities navigate legal systems and access government benefits effectively.
- Implementation Strategy: The initiative will involve campaigns, seminars, and events organized by State Legal Services Authorities (SLSAs) and District Legal Services Authorities (DLSAs) across the country. These efforts will include outreach activities at the grassroots level, utilizing para-legal volunteers and panel lawyers.
- The launch of SARTHIE 1.0 marks a significant step toward enhancing social justice in India by focusing on the needs of the most vulnerable sections of society.
- It aims to ensure that all individuals, regardless of their background, have equitable access to social welfare programs that can improve their quality of life.

About The National Legal Services Authority (NALSA)

 The National Legal Services Authority (NALSA) is a statutory body established in India under the Legal Services Authorities Act, 1987, with the primary aim of providing free legal services to eligible individuals and promoting legal literacy.



 NALSA was officially constituted on November 9, 1995, and operates under the guidance of the Chief Justice of India, who serves as its Patron-in-Chief.

HUMSAFAR POLICY



- The Humsafar Policy was recently launched by the Union Minister of Road Transport and Highways, Nitin Gadkari, on October 7, 2024, in New Delhi.
- This policy aims to enhance the convenience and quality of travel on India's National Highways and accelerate the development of wayside amenities.

Key Features of the Humsafar Policy

- The primary goal is to provide standardized, well-maintained, and hygienic facilities along National Highways and Expressways, thereby improving the overall travel experience for commuters.
- The policy establishes a comprehensive framework to onboard existing and upcoming service providers such as eateries, fuel stations, and trauma centers. This will help ensure that travelers have access to high-quality services during their journeys.

Commuter Benefits

- Commuters will be able to find details about nearby service providers instantly through the Rajmarg Yatra app, which will also allow them to report issues and rate services.
- Registered service providers can benefit from a waiver of renewal fees for access permissions if they maintain an average rating of three stars or higher.
- Monitoring and Inspection: The policy includes rigorous provisions for monitoring and inspecting registered service providers to ensure they meet quality standards. Regular inspections will be conducted by a third-party agency, with alerts sent if ratings fall below the acceptable threshold.
- The Humsafar Policy incorporates eco-friendly practices such as water conservation, soil conservation, waste recycling, and the use of solar energy in its framework.

PMECRG AND MAHA-EV MISSION

 The Anusandhan National Research Foundation (ANRF) recently launched two significant initiatives aimed at enhancing India's research landscape: the Prime Minister Early Career Research Grant (PMECRG) and the Mission for Advancement in High-Impact Areas - Electric Vehicle (MAHA-EV) Mission.



 These initiatives were officially announced on October 14, 2024, and are designed to support early-career researchers and advance electric vehicle technology in India.

About Prime Minister Early Career Research Grant (PMECRG)

The PMECRG aims to empower early-career researchers by providing financial support and fostering a culture of innovation.

- Grant Amount: Up to ₹60 lakh, covering a period of three years.
- Eligibility: Applicants must hold a PhD or equivalent degree and be within two years of joining a recognized institution. The upper age limit is 42 years, with a three-year relaxation for SC/ST/OBC/ differently-abled individuals and women candidates.
- Application Process: The application opened on October 14, 2024, and will close on November 19, 2024. Researchers can apply for only one project per grant cycle.
- The grant covers various expenses including manpower recruitment, patent filing, and travel related to research activities. A total of 700 grants will be awarded annually across all project areas.

About Mission for Advancement in High-Impact Areas - Electric Vehicle (MAHA-EV) Mission

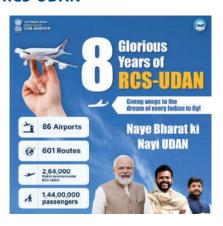
The MAHA-EV Mission focuses on developing key technologies in the electric vehicle sector to reduce import dependency and foster domestic innovation. Its main objectives include.

- **Focus Areas:** The mission targets three major technology verticals:
 - Tropical EV Batteries and Battery Cells
 - Power Electronics, Machines, and Drives (PEMD)
 - Electric Vehicle Charging Infrastructure
- The MAHA-EV initiative aligns with India's vision of Atmanirbhar Bharat, promoting self-reliance in EV component development while enhancing domestic capabilities.



- Both initiatives aim to play a transformative role in bridging the gap between academic research and industrial application.
- PMECRG aims to boost the creativity, innovation, and excellence of early career researchers and accelerate India's research-driven aspirations.
- Furthermore, the MAHA- EV Mission will support industry-aligned translational research in Electric Vehicles, an area of national priority.

PM MODI INAUGURATES THREE AIRPORTS UNDER RCS-UDAN



- Recently, Prime Minister Narendra Modi inaugurated three new airports under the Regional Connectivity Scheme (RCS-UDAN).
- The airports are located in Rewa (Madhya Pradesh), Ambikapur (Chhattisgarh), and Saharanpur (Uttar Pradesh).
- This initiative aims to enhance air travel accessibility in underserved regions of India.
- The airports were inaugurated on October 27, 2024, during a ceremony held in Varanasi, Uttar Pradesh.

About Regional Connectivity Scheme (RCS-UDAN)

- The RCS-UDAN scheme, which stands for "Ude Desh Ka Aam Nagrik", aims to make air travel affordable and accessible for the common citizen.
- The RCS-UDAN scheme, launched in 2016, is designed to improve connectivity to remote and underserved areas, thereby promoting economic growth and tourism.
- Nodal Ministry: Ministry of Civil Aviation
 - Since its inception, it has facilitated travel for over 14.4 million passengers across the country.
 - Operational Plans: Commercial flights from these newly inaugurated airports are expected to begin shortly, providing residents with improved access to major cities and enhancing local economic opportunities.

Some programs under UDAN Scheme

Lifeline UDAN

- Launched to facilitate the transportation of medical cargo during the pandemic, Lifeline UDAN commenced operations in March 2020.
- It played a crucial role in operating 588 flights, transporting nearly 1000 tonnes of voluminous cargo and essential medical services across various parts of the country.

Krishi UDAN

 Introduced to enhance the value realization of agricultural products, particularly in the Northeastern Region (NER) and tribal districts.

International UDAN

 The International UDAN initiative aims to establish direct connections between India's smaller cities and key foreign destinations in the neighboring regions.

ESHRAM-ONE STOP SOLUTION



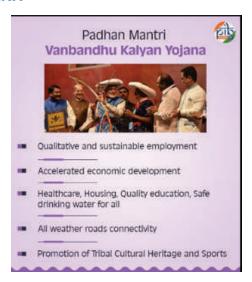
- The Central Government has recently launched the eShram-One Stop Solution platform, aimed at providing integrated access to 12 welfare schemes specifically designed for unorganised sector workers.
- **eShram One Stop Solution** will provide seamless access of different Social Security Schemes to the unorganised workers registered on eShram.
- This initiative was officially inaugurated on October 21, 2024, by Union Minister Mansukh Mandaviya in New Delhi.



Key Features of eShram-One Stop Solution

- Integration of Welfare Schemes: The platform consolidates data from various central ministries and departments, allowing unorganised workers to access multiple social security and welfare schemes through a single interface.
- This includes significant programs like: the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Pradhan Mantri Shram Yogi Maandhan, and the National Social Assistance Programme among others.
- **User-Friendly Access:** The eShram portal **simplifies the registration process for unorganised workers**, making it easier for them to benefit from government initiatives. As of now, over 30 crore workers have registered on the eShram platform since its initial launch in August 2021.
- The government plans to continue integrating additional welfare schemes into the eShram platform, enhancing its utility and reach among unorganised sector workers.
- This is part of a broader strategy to ensure that all potential beneficiaries are identified and can access available support effectively.

PRADHAN MANTRI VANBANDHU KALYAN YOJANA



- The Pradhan Mantri Vanbandhu Kalyan Yojana (PMVKY) is a significant initiative launched by the Government of India on October 28, 2014, aimed at the holistic development of tribal communities across the country.
- It recognizes the historical neglect faced by these communities and seeks to empower them through various developmental programs and financial assistance.

Objectives and Key Features

• Empowerment of Tribal Communities: The PMVKY

- focuses on uplifting tribal populations by addressing socio-economic disparities and enhancing their living standards through integrated development strategies.
- Integrated Village Development: The program revamps existing schemes, particularly the Special Central Assistance to Tribal Sub-Plan, targeting 36,428 villages with significant tribal populations. This includes improving infrastructure in critical sectors such as:
 - Road and telecom connectivity
 - Education and health services
 - Sanitation.
- Support for Particularly Vulnerable Tribal Groups (PVTGs): The initiative aims to uplift the most marginalized tribal communities, providing tailored support in housing, health, and education.
- A dedicated Pradhan Mantri PVTG Development Mission has been launched with an allocation of ₹15,000 crore over three years to enhance living conditions for PVTG families.
- The PMVKY has been approved for implementation from 2021-22 to 2025-26, with a total budget of approximately ₹26,135.46 crores.
- The scheme includes scholarship programs for tribal students:
 - Pre-Matric Scholarships for students in grades IX and X with a parental income ceiling of ₹2.5 lakhs.
 - Post-Matric Scholarships for Scheduled Tribe students studying beyond class 10 under similar income conditions

MISSION BASUNDHARA 3.0



On October 29, 2024, Assam Chief Minister Himanta Biswa Sarma launched the third and final phase of the Mission Basundhara scheme, a key initiative aimed at granting land rights to the indigenous people of Assam.



• This program reflects the government's commitment to protect the cultural and territorial integrity of indigenous communities, encapsulated in the phrase "Jati-Mati-Bheti" (community, land, homeland).

Key Features of Mission Basundhara 3.0

- Launched on October 2, 2021, Mission Basundhara aims to address land rights issues for indigenous populations after 75 years of independence.
- The initiative is part of a broader effort to provide legal land ownership to these communities.
- The third edition introduces several reforms to streamline land rights applications:
 - Indigenous groups such as Scheduled Castes (SC), Scheduled Tribes (ST), Adivasis, Tea Tribes, and Gorkhas will not need to prove three generations of ancestry to qualify for land rights.
 - The premium rate for land ownership has been reduced to 3% of zonal valuation, making it more accessible for urban dwellers.
 - The scheme will also focus on digitizing landrelated services and publishing maps to enhance transparency and efficiency in land management.
 - The Assam government has introduced a new digital facility named Digidoc, which serves as a directory for non-registrable documents.
 - This initiative aims to reduce processing times and improve public convenience in accessing landrelated services.

E-MIGRATE PORTAL



- External Affairs Minister S. Jaishankar and Union Minister of Labour and Employment Mansukh Mandaviya launched the e-Migrate V2.0 portal and mobile app on October 10, 2024.
- This **initiative aims to enhance safe and legal migration** for Indian citizens seeking employment abroad.
- The e-Migrate portal is designed to ensure safer, more transparent, and inclusive mobility for Indian labor
- It serves as a platform for registration, recruitment tracking, and access to information about authorized employers and recruitment agencies.
- The launch reflects the government's commitment to protecting the rights and dignity of Indian workers abroad, aligning with the 2030 Sustainable Development Goals.

Key Features

DigiLocker Integration

 Users can securely store important documents like passports and employment contracts in a paperless format.

24/7 Multilingual Helpline

 The portal includes a helpline to assist migrants with urgent issues.

Feedback Mechanism

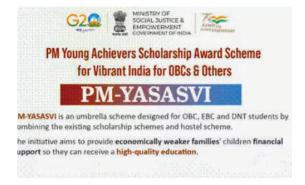
 A feature for registering feedback to address concerns swiftly.



DHARTI AABA JANJATIYA GRAM UTKARSH ABHIYAN

- Prime Minister Narendra Modi inaugurated the Dharti Aaba Janjatiya Gram Utkarsh Abhiyan on October 2, 2024, in Hazaribagh, Jharkhand.
- This initiative aims to promote the comprehensive development of tribal communities across India.
- Objective: The program focuses on providing basic facilities and sustainable livelihood opportunities to Particularly Vulnerable Tribal Groups (PVTGs), ensuring access to safe housing, clean drinking water, sanitation, education, health services, and improved connectivity.
- The initiative is part of a broader effort under the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN) and includes the establishment of Eklavya Model Residential Schools and various developmental projects targeting tribal populations.
- According to the 2011 census, India has a tribal population of approximately 10.45 crore, with 75 tribal communities recognized as PVTGs across 18 states and the Union Territory of Andaman and Nicobar Islands.
- The program will implement 25 interventions across various sectors through collaboration between central and state governments, aiming for full saturation of basic infrastructure in tribal-majority areas.

PM-YASASVI



The PM Young Achievers Scholarship Award Scheme for Vibrant India (PM-YASASVI) is a **significant initiative launched by the Ministry of Social Justice and Empowerment.**

- It is aimed at providing financial support to students from marginalized communities in India.
- **Objective:** The scheme is designed to empower students from Other Backward Classes (OBC), Economically Backward Classes (EBC), and De-notified Tribes (DNT) by facilitating access to quality education.
- **Target Groups:** It specifically supports students pursuing education at the pre-matriculation (Class IX) and post-matriculation (Class XI) levels.

Scholarship Amounts:

- Students in Class IX can receive up to ₹75,000 per annum.
- Students in Class XI can receive up to ₹1,25,000 per annum.

Eligibility Criteria:

- Applicants must belong to OBC, EBC, or DNT categories.
- The annual family income should not exceed ₹2.5 lakhs.
- Students must be enrolled in government schools or recognized institutions.
- Candidates need to register for the YASASVI Entrance Test (YET) conducted by the National Testing Agency (NTA).
- The application can be submitted online through the NTA's official website.
- The scheme consolidates various earlier initiatives aimed at supporting these communities and aims for a streamlined approach to educational empowerment.
- It is expected to benefit a large number of students by providing them with the necessary financial support to continue their education.



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Index and Reports

HAL'S MAHARATNA STATUS: INDIA'S GROWTH TOWARDS AEROSPACE INDUSTRY:



- Hindustan Aeronautics Limited (HAL) was upgraded to Maharatna status on October 12, becoming the 14th Central Public Sector Enterprise (CPSE) to attain this prestigious classification.
- This elevation enhances HAL's financial and operational autonomy, allowing it to invest up to 15% of its net worth in projects and up to ₹5,000 crore in foreign ventures without needing government approval.
- Following the announcement, HAL's stock price rose by 1.42%, trading at ₹4,510.
- Key Details on HAL's Maharatna Status:
 - Approval Process: Approved by Finance Minister Nirmala Sitharaman after recommendations from the Inter-Ministerial Committee and the Apex Committee.
 - **Financial Criteria:** HAL qualified by achieving an average annual turnover above ₹25,000 crore, a net worth of over ₹15,000 crore, and an annual net profit exceeding ₹5,000 crore over the past three years.
 - Current Maharatna CPSEs: HAL joins other prominent Maharatna companies, including NTPC, ONGC, BHEL, and Indian Oil Corporation.

Criteria for Maharatna Status

- To earn Maharatna status, CPSEs must: First hold Navratna status.
- Meet stringent financial criteria:
 - Average Annual Turnover: Exceeding ₹25,000 crore
 - Average Annual Net Worth: More than ₹15,000 crore.
 - Average Annual Net Profit: Over ₹5,000 crore for the last three years.

- Financial Performance: In the first quarter of FY25, HAL reported a 76.5% increase in net profit, reaching ₹1,437.2 crore compared to ₹814.2 crore in the same quarter the previous year, along with an 11% year-on-year revenue increase.
- Advantages of Maharatna Status: With Maharatna status, HAL gains greater flexibility in:
- Decision-Making: Can make strategic investments, mergers, and acquisitions without government preapproval.
- Global Competitiveness: Enhanced potential to compete internationally and pursue major defense sector projects.
- List of Maharatna Companies in India (2024):
 - 1. Bharat Heavy Electricals Limited (BHEL) 1964
 - Bharat Petroleum Corporation Limited (BPCL) -1952
 - 3. GAIL India Limited (GAIL) 1984
 - 4. Coal India Limited (CIL) 1975
 - Hindustan Petroleum Corporation Limited (HPCL)
 1974
 - 6. Steel Authority of India Limited (SAIL) 1954
 - 7. National Thermal Power Corporation (NTPC) 1975
 - 8. Rural Electrification Corporation Limited (REC) 1969
 - 9. Power Finance Corporation (PFC) 1986
 - 10. Power Grid Corporation of India Limited (POWERGRID) 1989
 - 11. Indian Oil Corporation Limited (IOCL) 1959
 - 12. Oil & Natural Gas Corporation Limited (ONGC) 1956
 - 13. Oil India Limited (OIL) 1959
 - 14. Hindustan Aeronautics Limited (HAL) 1940
- The Maharatna classification empowers HAL to expand its capabilities in aerospace and defense sectors, enhancing India's defense self-reliance and fostering further growth in strategic national industries.

INDIA RANKS 105TH IN GLOBAL HUNGER INDEX 2024

 The Global Hunger Index (GHI) is an annual, peer-reviewed report by Concern Worldwide and **Welthungerhilfe** that measures and tracks hunger levels across the world.



- The 2024 GHI report, the 19th edition, evaluates hunger across 127 countries using a score from 0 to 100, where 0 represents no hunger and 100 represents extreme hunger.
- India's 2024 GHI Performance:
 - Rank: 105th out of 127 countries, categorized under "serious" hunger levels.
 - Score: 27.3, indicating severe hunger.
- Key Indicators for India's GHI Score:
 - **Undernourishment:** 13.7% of the population lacks sufficient caloric intake.
 - **Child Stunting:** 35.5% of children under five show stunted growth due to chronic malnutrition.
 - **Child Wasting:** 18.7% of children under five experience acute undernutrition.
 - **Child Mortality:** 2.9% of children die before age five due to inadequate nutrition and health conditions.
- Global Context and Comparison:
 - India ranks lower than several South Asian neighbors, highlighting ongoing challenges in combating hunger.
 - Globally, 733 million people face hunger, and 2.8 billion cannot afford a healthy diet.
- Conflict Impact on Hunger in 2024: Regions like Gaza, Sudan, and Syria face worsened hunger due to ongoing conflicts, while some African nations are in "alarming" states of food insecurity caused by civil unrest.
- Challenges to Achieving Zero Hunger: The 2024
 GHI report underscores that the UN Sustainable
 Development Goal of Zero Hunger by 2030 is
 becoming less attainable without significant progress.

GLOBAL WILDLIFE NUMBERS DECLINED 73% SINCE 1970, SAYS WORLD WIDE FUND (WWF)

 The World Wildlife Fund (WWF) has published the 2024 Living Planet Report, highlighting a drastic 73% decline in global wildlife populations since 1970.



- The report, covering 35,000 wildlife populations and 5,495 species, emphasizes the pressing need for action to curb biodiversity loss.
- Purpose of the Living Planet Index (LPI): The Living Planet Index (LPI), developed by WWF, tracks trends in wildlife populations rather than individual species, serving as an indicator of extinction risks and ecosystem health.
- Key Findings:
 - Overall Wildlife Decline: Wildlife populations have decreased by 73% since 1970, with the steepest declines seen in:
 - Freshwater species: 85% drop
 Terrestrial species: 69% drop
 Marine species: 56% drop
 - Regional Declines: Wildlife population reductions vary globally:
 - **Latin America and the Caribbean:** 95%

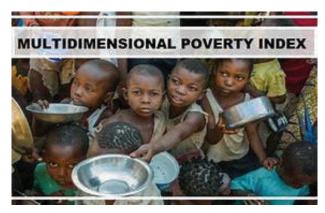
Africa: 76%
Asia-Pacific: 60%
North America: 39%
Central Asia: 35%

- Major Causes of Decline:
 - Habitat loss
 - Overexploitation of resources
 - Invasive species
 - Climate change impacts
- Human activities are cited as the primary drivers of this biodiversity crisis.
- Critical Biodiversity Tipping Points:
 - **Coral Reefs:** Ongoing bleaching threatens 75% of reefs, essential for marine biodiversity and coastal protection.
 - Amazon Rainforest: Degradation impacts carbon storage; loss of seed-dispersing animals affects forest regeneration.
 - Melting Ice Sheets: The Greenland and West Antarctic ice sheets are nearing tipping points, with potential for significant sea-level rise and greenhouse gas emissions.



- Impact on UN Sustainable Development Goals (SDGs): Over half of the UN's 2030 SDGs are at risk, with 30% already lagging behind 2015 benchmarks. Climate change commitments fall short, risking a 3°C temperature rise by century's end.
- Food Security and Overfishing:
 - Hunger: 735 million people experience food insecurity.
 - **Crop Variety Loss:** 90% of crop varieties have vanished, concentrating global food reliance on a few crops.
 - **Overfishing:** 37.7% of marine fish stocks are overfished, impacting seafood supplies for over 3 billion people.
- **Economic and Environmental Costs:** Environmental degradation and health impacts cost **\$10-15 trillion annually**, equating to 12% of global GDP.
- WWF's Call to Action:
 - WWF calls for tripling renewable energy and doubling energy efficiency by 2030, increasing vehicle electrification, and grid modernization.
 - Indigenous community support is emphasized, as these groups manage 25% of the world's land, which is crucial for biodiversity conservation.
- About the WWF: Founded in 1961 and headquartered in Gland, Switzerland, WWF works globally in over 100 countries to conserve nature, tackle pressing environmental threats, and develop sustainable solutions for people and wildlife.

2024 GLOBAL MULTIDIMENSIONAL POVERTY INDEX (MPI)



- The 2024 Global Multidimensional Poverty Index (MPI) report, jointly released by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI), underscores a profound link between violent conflict and multidimensional poverty.
- This year's report covers 112 countries and over 1,359 subnational regions, revealing the complexities of poverty across different settings.

Key Findings

- Global Poverty Scope: Approximately 1.1 billion people live in acute multidimensional poverty, with 455 million in conflict zones where poverty rates are higher, and progress in poverty reduction is significantly hampered.
- **Child Poverty:** Children represent **584 million** of the impoverished, with **27.9% of children** in poverty compared to **13.5% of adults**. This emphasizes a severe impact on youth welfare in vulnerable regions.
- **Basic Needs:** Critical resource deficits affect impoverished populations:
 - Sanitation: 828 million lack adequate sanitation.
 - **Housing:** 886 million live without secure housing.
 - Cooking Fuel: 998 million lack clean cooking fuel.
- Nutrition: Over 637 million people live with at least one undernourished family member, with South Asia and Sub-Saharan Africa most impacted.
- MPI Data for South Asia:
 - **India:** MPI value 0.105; 234 million people (23.8%) in poverty.
 - **Pakistan:** MPI value 0.198; 93 million people (38.3%) in poverty.
 - **Nepal:** MPI value 0.092; 7.5 million people (22.5%) in poverty.
 - **Bangladesh:** MPI value 0.104; 41.7 million people (24.6%) in poverty.
- Conflict and Poverty: The report highlights significantly higher deprivation across all MPI indicators in conflict-affected areas. In these regions:
- **Electricity:** Over 25% of impoverished people lack access, versus 5% in stable areas.
- **Child Education:** 17.7% of children lack access in conflict areas, compared to 4.4% in peaceful regions.
- **Nutrition:** 20.8% face undernutrition in conflict zones, against 7.2% in stable areas.
- Case Study: Afghanistan: Afghanistan exemplifies how conflict exacerbates poverty, with 64.9% of its population living in poverty as of 2022/23. The country experienced an increase of 5.3 million people in poverty from 2015/16 to 2022/23 due to ongoing conflict, underscoring the critical need for targeted intervention.
- Global Poverty Trends: Since the MPI's inception in 2010, it has become a fundamental tool for identifying vulnerabilities within populations. The report reiterates the need for investment in peace, highlighting that addressing poverty sustainably requires a foundation of stability and security.
- **Call to Action:** The 2024 report concludes that advancing poverty reduction necessitates a renewed focus on peace-building, resource accessibility, and protection for populations in conflict-affected areas.



ECONOMIC FREEDOM OF THE WORLD: 2024 ANNUAL REPORT



- The Economic Freedom of the World: 2024 Annual Report, published by the Fraser Institute, assesses economic freedom in 165 jurisdictions by examining the extent to which individuals can make their own economic choices.
- Based on 2022 data, Hong Kong, Singapore, and Switzerland hold the top three spots, highlighting regions with the highest levels of economic freedom.

Key Findings

- Disparities in Economic Freedom: Economically free regions tend to fare significantly better in terms of GDP per capita, life expectancy, life satisfaction, and poverty and infant mortality rates. In the freest countries, GDP per capita is 7.6 times higher than in the least free ones.
- Correlation with Positive Indicators: The report emphasizes a strong association between high economic freedom and improved income levels, longer lifespans, reduced corruption, and greater access to basic services. Additionally, people in economically free countries report higher happiness levels.
- Methodology and Historical Context: The index arose
 as a counterpart to the Freedom House measures of
 political and cultural freedom, reflecting the need for an
 economic lens. The Economic Freedom of the World
 index includes 42 variables across categories such as
 government size, property rights, monetary policy,
 and trade freedom to assess how policies influence
 individual freedoms and overall economic well-being.
- Influence and Criticism: The report is influential in academic and policy spheres, supporting the link between economic freedom, poverty reduction, and development.
- However, some critique the report, questioning whether growth and freedom are strictly linked; for instance, countries with lower economic freedom have shown high growth rates, and welfare-oriented economies, like those in northern Europe, demonstrate that high social welfare can coexist with substantial economic freedom.

2024 Rankings Snapshot

- Top 10 Jurisdictions:
 - Hong Kong
 - Singapore
 - Switzerland
 - New Zealand
 - United States
 - Denmark
 - Ireland
 - Canada
 - Australia
 - Luxembourg
- Other Notable Rankings:

Japan: 11th Germany: 16th South Korea: 32nd

France: 36thItaly: 51stMexico: 65thIndia: 84thBrazil: 85th

China: 104thRussia: 119th

INDIA RANKS 79 OUT OF 142 IN THE WORLD JUSTICE PROJECT RULE OF LAW INDEX 2024



- The World Justice Project (WJP) Rule of Law Index 2024 ranks India at 79th out of 142 countries, reflecting areas for improvement amid a global decline in rule of law standards.
- The Index shows that **57% of countries** experienced declines in the rule of law for the seventh year in a row, often due to increasing authoritarian trends and weakened protection of fundamental rights.

Key Highlights of the WJP Rule of Law Index 2024

- Global Trends:
 - Decline in Rule of Law: This year marks the sixth consecutive year of global declines, with 59% of countries reporting a fall in rule of law standards.



• **Top Performers**: Denmark, Norway, Finland, Sweden, and Germany are the highest-ranked countries, while Venezuela, Cambodia, Afghanistan, Haiti, and Myanmar are at the bottom.

• India's Performance:

- Overall Ranking: India is 79th globally and holds the 3rd position in South Asia, following Nepal (69) and Sri Lanka (75).
- Income Group Ranking: Within lower-middleincome countries, India ranks 8th out of 38.
- **South Asia**: India ranks third in the region, ahead of Bangladesh (127), Pakistan (129), and Afghanistan (140).

Key Observations:

- Progress Against Corruption: India saw improvements in the Absence of Corruption factor, and part of the 59% of countries showed progress here.
- Constraints on Government Powers: Ranked 60th globally, India showed slight declines, indicating challenges in balancing executive powers.
- Open Government: India leads South Asia in Open Government, suggesting advancements in transparency.
- Fundamental Rights: Despite some improvements, India ranks 102nd in Fundamental Rights, highlighting challenges in safeguarding civil liberties.
- Justice System: India's low rankings in Civil (107th) and Criminal Justice (89th) point to issues like delays, enforcement weaknesses, and limited accessibility.

• Global Ranking Summary:

Rank	Country	World Justice Project Rule of Law Score
1.	Denmark	0.87
2.	Norway	0.86
3.	Finland	0.84
4.	Sweden	0.84
5.	Germany	0.81
6.	Netherlands	0.80
7.	New Zealand	0.80
8.	Canada	0.79
9.	Australia	0.79
10.	Singapore	0.78

• India's Areas for Improvement:

 India's ranking in the WJP Rule of Law Index highlights the need for reforms in areas like fundamental rights protection, judicial efficiency, and anti-corruption measures, while

- also recognizing advancements in **transparency** and government accountability.
- The Index serves as a valuable framework for addressing these challenges and enhancing India's rule of law performance.

GREENPEACE REPORT 2024



- The Delhi government's Pink Ticket scheme, which
 has offered free bus travel for women since October
 2019, has seen substantial uptake and benefits, yet
 safety concerns persist, particularly after dark.
- A recent Greenpeace report reveals that 77% of women feel unsafe on buses at night, citing factors such as poor lighting, infrequent schedules, and overcrowding.
- These challenges highlight a critical gap in the scheme's goal to provide not only accessible but also safe public transportation for women.
- Impact of the Pink Ticket Scheme:
 - Economic Benefits: The scheme has issued over 100 crore free tickets for women, resulting in significant financial savings. About 75% of surveyed women reported redirecting their savings to essential needs, including household expenses, emergencies, and healthcare.
 - Increased Ridership: 25% of women stated they now use buses more frequently, with some who previously avoided public transit due to costs or accessibility issues becoming regular riders.
- Safety Concerns and Service Gaps: While the Pink
 Ticket scheme is praised for enhancing financial
 accessibility and environmental impact, safety
 remains a substantial barrier. According to the report:
- **Lighting and Infrastructure**: Poorlighting, particularly in bus interiors and at bus stops, contributes to women's feelings of insecurity after dark.
- Infrequent and Overcrowded Buses: Limited bus availability during night hours, combined with overcrowded conditions, increases the risk of harassment and contributes to a sense of vulnerability.
- Greenpeace India highlights the need for a **larger fleet** of buses and **improved schedules** to provide women with safer travel options at all hours.



- Advocacy for a National Policy: Greenpeace India
 is advocating for a nationwide fare-free transport
 policy for women and transgender individuals, aiming
 to create a safer, more inclusive transit system.
 Campaigner Aakiz Farooq emphasized that the
 scheme's full potential can only be realized through:
- **Fleet Expansion**: More buses to reduce overcrowding and ensure availability, especially during late hours.
- Enhanced Safety Measures: Improved lighting, security personnel, and regular monitoring to create a safer environment.
- **Reliable Connectivity**: Consistent schedules to reduce waiting times and uncertainty.
- The **Riding the Justice Route** report suggests that such measures could help **transform public transport** into a safer, more empowering resource for women, fostering gender equality in urban transit

LAHORE HAS ONCE AGAIN SECURED THE GRIM TITLE OF THE MOST POLLUTED CITY GLOBALLY



- Lahore has recently ranked as the world's most polluted city, with AQI levels reaching a dangerous 708 and PM2.5 concentrations at 431 μg/m³, massively exceeding the WHO's recommended limit by a factor of 86.
- This severe pollution crisis is mainly driven by vehicular emissions, outdated industrial practices, and agricultural burning, resulting in a persistent, hazardous smog that has led to rising respiratory illnesses among Lahore's residents. Health authorities are advising people to limit outdoor activities, wear masks, and use air purifiers to reduce exposure.
- Current Pollution Crisis: The high AQI has placed Lahore consistently at the top of the world's most polluted cities. The thick smog and particulate pollution, particularly PM2.5, are causing serious health risks, including asthma, bronchitis, and other respiratory conditions. Seasonal factors and crop burning contribute significantly to this smog, as pollutants get trapped due to atmospheric conditions that prevent proper dispersion.

- Government Measures and Anti-Smog Initiatives:
 In response, the Punjab government, under Chief Minister Maryam Nawaz, has taken several steps:
- Anti-Smog Squad: Formed to educate and assist farmers with sustainable practices, helping reduce reliance on crop residue burning.
- **Environmental Education**: Schools have introduced lessons on environmental conservation to foster awareness from a young age.
- **Climate Diplomacy**: Engaging in dialogue with **India** to mitigate **transboundary pollution** impacts, especially due to **stubble burning** in Indian Punjab, which affects air quality across the border.
- Proposed Long-Term and Immediate Solutions:
 - While these initiatives are essential, experts caution that substantial results may not be visible for another 8-10 years. Immediate measures, such as artificial rain, are being explored to reduce pollution temporarily. Additionally, sustained crossborder collaboration is crucial to manage the shared pollution from agricultural burning.
 - Lahore's pollution crisis underscores an urgent need for sustained, collaborative, and multifaceted solutions to protect public health and work towards cleaner air for future generations.

WORLD BANK (WB) LAUNCHES THE FIRST EDITION OF ITS BUSINESS-READY INDEX



- Here's a summary of the Business-Ready (B-Ready)
 Index and its features:
 - Overview of the Business-Ready (B-Ready) Index:
 - Purpose: It assesses the business environment in various economies for private sector growth and aims to cover 180 economies by 2026.
 - Successor to EoDB: Replaces the World Bank's Ease of Doing Business (EoDB) rankings, which were discontinued in 2021 due to ethical concerns. The EoDB focused primarily on ease of starting and operating a business.
 - Goal Alignment: Supports the World Bank Group's twin goals of eliminating poverty and boosting shared prosperity.



Structure and Focus

- The B-Ready Index provides a quantitative assessment of business environments based on three pillars:
 - Regulatory Framework: Evaluates rules and regulations for business operations.
 - Public Services: Examines compliance support and infrastructure.
 - Operational Efficiency: Assesses ease of compliance and accessibility of services.
- Key Features of B-Ready Compared to EoDB:
 - Comprehensive: Evaluates the business environment for individual firms and overall private sector development, while EoDB focuses primarily on small and medium enterprises.
 - Qualitative: Assesses both the regulatory burden and quality of regulation, unlike EoDB, which only examined the burden.
 - Balanced: Includes both de jure (statutory) and de facto (practical) information on firms, whereas EoDB indicators sometimes lacked this balance.
 - **Diverse**: Covers a broader range of topics, including areas like **labor**—topics that EoDB excluded.
- The B-Ready Index, therefore, provides a more nuanced, inclusive, and comprehensive look at the global business environment than its predecessor.

INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA) PUBLISHED ITS ANNUAL REVIEW 2024 REPORT TITLED "RENEWABLE ENERGY AND JOBS"



 Here's an overview of India's renewable energy progress based on findings from the International Renewable Energy Agency (IRENA):

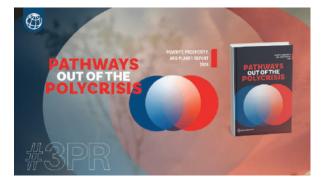
About IRENA

- **Purpose**: An intergovernmental agency promoting energy transformation globally by facilitating international cooperation and supporting countries in their renewable energy (RE) transitions.
- India's Membership: India is an active member.

Key Findings on Renewable Energy Workforce

- **Global Workforce Growth**: The global renewable energy workforce grew to **16.2 million** in 2023, up from **13.7 million** in 2022.
- **India's RE Jobs**: India's renewable energy sector employed an estimated **1.02 million** people in 2023.
- **Sector Employment**: Hydropower is the largest employer in India's RE sector, followed by **Solar Photovoltaic (PV)**.
- Solar PV Growth: India added 9.7 GW of solar PV capacity in 2023, ranking 5th globally in new installations and total capacity, which reached 72.7 GW by the end of 2023.
- Solar PV Jobs: There were 238,000 jobs in gridconnected solar PV in 2023.
- Wind Power: India's wind power capacity reached 44.7 GW in 2023 (ranked 4th globally) with an addition of 2.8 GW.
- India's Renewable Energy Status:
 - Growth in Capacity: India's RE capacity expanded by 165% over the last 10 years (from 76.38 GW in 2014 to 203.1 GW in 2024).
 - Global Ranking: Ranks 4th globally in installed RE capacity.
- Challenges in Renewable Energy Skills:
 - Widening Skill Gaps: Rapid growth in the RE sector is creating demand for a skilled workforce that outpaces current training and development.
 - Lack of Skills Monitoring: The absence of robust systems for anticipating and monitoring skill needs limits the adaptation of education and training to market demand.
- India's commitment to renewable energy is evident in its workforce and capacity growth, though addressing skill gaps remains essential to sustaining this momentum.

POVERTY, PROSPERITY, AND PLANET REPORT 2024 RELEASED BY WORLD BANK



The recent report presents a comprehensive framework aimed at managing trade-offs among the three pillars of the **iron triangle of economic development**: **Poverty**, **Prosperity**, and **Planet**. Below are the key findings and proposed pathways highlighted in the report:



Key Findings

• Stalled Global Poverty Reduction:

- Global efforts to reduce poverty have stagnated over the past five years, primarily due to a phenomenon termed **polycrisis**. This refers to the simultaneous occurrence of multiple crises, including:
 - Slow economic growth.
 - Increased fragility in governance and societies.
 - Climate risks and heightened uncertainty.
 - These combined factors complicate national development strategies and international cooperation efforts.
- Non-attainment of Targets: The projected percentage of the global population living in extreme poverty is expected to reach 7.3% by 2030 (up from 8.5% in 2024), which is significantly higher than the World Bank's target of 3% and further from the UN Sustainable Development Goals (SDGs) target of eliminating extreme poverty.

• Global Prosperity Gap:

- The report highlights a **prosperity gap**, indicating a stall in progress since the COVID-19 pandemic, which has hindered inclusive income growth.
- The prosperity gap is defined as the average factor by which incomes need to be multiplied to meet a standard of \$25 per person per day.

India's Progress:

 India has witnessed a notable decrease in extreme poverty, falling from 431 million in 1990 to an estimated 129 million in 2024.

- The **World Bank** currently defines extreme poverty as living on less than **\$2.15 per person per day**.
- Proposed Pathways and Priorities:
 - Faster and Inclusive Growth: The report emphasizes the need for increasing labor productivity, enhancing income, and boosting employment opportunities to foster inclusive economic growth.

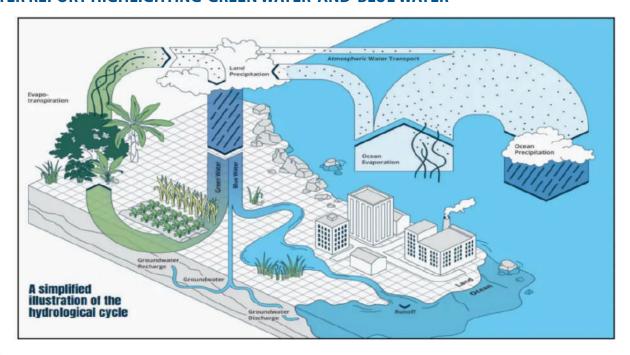
Climate Resilience:

- Strategies must be developed to enhance resilience to climate shocks. This includes:
- Strengthening risk management and mitigation efforts.
- Synergizing policies to balance income growth with efforts to lower greenhouse gas emissions.

• Priorities from a Global Perspective:

- Low-Income Countries: Focus on poverty reduction by investing in human, physical, and financial capital to boost economic development.
- Middle-Income Countries: Aim to increase income growth while reducing vulnerabilities, and seek synergies that include initiatives like cutting air pollution.
- High-Income and Upper-Middle-Income Countries: These countries should accelerate efforts to mitigate climate change while carefully managing the costs associated with the transition to sustainable practices.

THE GLOBAL COMMISSION ON THE ECONOMICS OF WATER RELEASED THE ECONOMIC OF WATER REPORT HIGHLIGHTING 'GREEN WATER' AND 'BLUE WATER'





- The Global Commission on the Economics of Water recently released a report focusing on the critical concepts of 'Green water' and 'Blue water', which are essential components of the hydrological cycle.
- Here's a detailed overview of both:
 - About Green Water:
 - Definition: Green water refers to the moisture present in the soil and vegetation. It is the water that is held in the ground and is available for plant uptake.
 - **\Delta** Hydrologic Cycle:
 - Green water is a significant part of the hydrological cycle.
 - It is absorbed by plant roots, utilized by plants for growth, and eventually released back into the atmosphere through **transpiration**.

Importance:

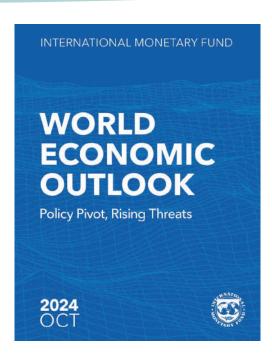
- Rainfall Generation: Green water plays a crucial role in generating rainfall by contributing to local humidity and atmospheric moisture.
- Climate Mitigation: It is vital for mitigating climate change impacts by promoting vegetation cover, which sequesters carbon dioxide.
- Economic Stability: Effective management of green water resources is essential for agricultural productivity, food security, and overall economic stability, especially in rain-fed agricultural systems.

About Blue Water:

- **Definition:** Blue water encompasses the water stored in **surface and groundwater** sources, which includes lakes, rivers, and reservoirs.
- **Recharge Mechanism:** Blue water is primarily recharged by **precipitation**, which contributes to the flow and availability of water in these bodies.
- Significance:
 - Blue water is critical for various uses, including drinking water, irrigation, industrial processes, and maintaining aquatic ecosystems.
 - Sustainable management of blue water resources is essential for addressing challenges related to water scarcity, ensuring access to clean water, and supporting economic development.

INTERNATIONAL MONETARY FUND (IMF) RELEASES WORLD ECONOMIC OUTLOOK (OCTOBER 2024) REPORT

 The report is published twice a year, offering shortand medium-term analyses and projections of the global economy.



Key Highlights

- **Global Growth:** Projected to remain stable at **3.2%** for both 2024 and 2025.
- Uncertainty Factors: Growth is vulnerable to geopolitical conflicts, increasing trade tensions, upcoming elections, and leadership changes in major economies.
- **India's Growth:** Projected at **6.5%** for 2025-26, making it one of the faster-growing major economies.
- Focus on Structural Reforms: The report underscores
 the importance of structural reforms and highlights
 strategies to make these reforms socially acceptable.

Structural Reforms

- Definition: Structural reforms are policy changes aimed at improving resource allocation in the economy by altering existing rights and economic benefits (rents).
- Social Acceptability Challenges: Securing support is challenging because the benefits and drawbacks of reforms are unevenly distributed across society and over time.

Factors Influencing Attitudes Toward Structural Reforms

- **Personal Beliefs and Perceptions:** Misconceptions about policies and their effects can affect attitudes.
- Socioeconomic Interests: Economic self-interest based on socioeconomic background shapes individual policy views.
- Strategies to Build Support for Structural Reforms
- Information: Clear, nonpartisan information is essential to address misperceptions and educate the public.



- **Engagement:** A two-way dialogue with the public allows them to participate in shaping policy.
- Mitigation: Reforms can have uneven impacts, so targeted measures like temporary cash support or capacity building are necessary to cushion affected groups.
- Trust: Establishing credible and independent bodies and prioritizing first-generation reforms (e.g., tackling corruption) can build trust in governance and enhance reform acceptance.

COMMITMENT TO REDUCING INEQUALITY (CRI) INDEX 2024 RELEASED



- The Commitment to Reducing Inequality (CRI) Index 2024, published by Oxfam and Development Finance International (DFI), highlights the challenges many countries face in addressing socio-economic inequalities.
- The report ranks **164 countries** based on their performance across three main pillars.
- Key Findings of the CRI Index 2024:
 - Top Performers: Norway, Canada, and Australia lead in reducing inequality, excelling in public services, progressive taxation, and labor rights.
 - Worst Performers: South Sudan and Nigeria rank at the bottom, reflecting major challenges in addressing socio-economic disparities.
 - India's Rank: India ranks 127th, indicating significant room for improvement in its inequality reduction measures.
 - Low- and Middle-Income Leaders: Belarus, Costa Rica, and South Africa top the rankings among lowand middle-income countries.
- Challenges and Barriers:
 - **Rising Inequality:** Growing wealth disparity is exacerbating socio-economic divides.
 - Conflict and Climate Shocks: Conflict and climate events have severely impacted spending in poorer countries, driving up food prices and hunger.
 - Billionaire Wealth: The number of billionaires has doubled, highlighting a wealth concentration issue.

- Pillars of the CRI Index:
 - **Public Services:** Measures investment in health, education, and social protection.
 - **Progressive Taxation:** Assesses the fairness and effectiveness of tax systems in redistributing wealth.
 - **Labor Rights:** Evaluate the protection of workers' rights, minimum wages, and the ability to unionize.

UN ENVIRONMENT PROGRAMME RELEASES EMISSIONS GAP REPORT 2024



 The United Nations Environment Programme (UNEP) has released the Emissions Gap Report 2024 ahead of the COP 29 meeting in Baku, Azerbaijan. This report assesses the gap between projected greenhouse gas emissions under current policies and the targets set by the Paris Agreement.

Key Highlights of the Emissions Gap Report 2024

- **Current Warming Trajectory:** If countries continue with current policies, global temperatures are projected to rise by **3.1°C above pre-industrial levels**, far exceeding Paris Agreement goals.
- Paris Agreement Risks: Even if all Nationally
 Determined Contributions (NDCs) are fully
 implemented, warming is expected to reach 2.6°C,
 endangering the agreement's goal to limit warming
 below 2°C, ideally to 1.5°C.
- Urgent Reduction Needs: To meet the 1.5°C target, emissions must peak by 2025 and reduce by 43% by 2030.
- Record-High Emissions: Global greenhouse gas emissions reached 57.1 gigatons of CO₂ equivalent in 2023, with India's emissions growing 6.1% and global emissions rising by 1.3% from 2022.

Major Contributors and Emission Data

- G20's Emission Share: G20 nations (excluding the African Union) accounted for 77% of global emissions in 2023. The top six emitters were responsible for 63% of emissions worldwide.
- Per Capita Emissions:
 - India's per capita emissions in 2022 were 2.9 tCO₂e, significantly lower than China's (11 tCO₂e) and the US (18 tCO₂e).



- Developed nations' per capita emissions are roughly three times the global average (6.6 tCO₂e), while India, the African Union, and least developed countries fall below this.
- Necessary Emission Reductions and Financial Requirements:
 - Reduction Targets: A minimum reduction of 7.5% per year until 2035 is essential to achieve the 1.5°C target.
 - Financial Investment: Achieving net-zero by 2050 will require \$900 billion to \$2.1 trillion annually, about 1% of global GDP.

Emission Reduction Pathways

- Renewable Energy: Scaling up solar and wind energy could deliver 27% of required reductions by 2030.
- Forest Conservation: Preservation and restoration of forests could contribute an estimated 20% of emission reductions.

About United Nations Environment Programme (UNEP)

- Established: 1972, following the Stockholm Conference on the Human Environment.
- **Headquarters:** Nairobi, Kenya.
- Governing Body: The United Nations Environment Assembly (UNEA), with all 193 member states, is the highest decision-making body on environmental issues.
- Programs and Initiatives: UNEP runs key initiatives including Climate Action, Ecosystem Restoration, Clean Seas, and Sustainable Development Goals (SDGs) support.

 Reports: UNEP publishes critical reports like the Emissions Gap Report, Global Environment Outlook, and Adaptation Gap Report, shaping global environmental policies.

NATURE CONSERVATION INDEX(NCI), 2024



 Recently, the Nature Conservation Index(NCI) 2024 was released.

About NCI

- India's Rank: 176 out of 180 countries.
- Developed by: Goldman Sonnenfeldt School of Sustainability and Climate Change at Ben-Gurion University of Negev and BioDB.com
- It evaluates conservation efforts using four markers:
 - Land management,
 - Threats to biodiversity,
 - Capacity and governance,
 - and Future trends.
- It is a data-driven analysis of each country's progress in balancing conservation and development.



7

International Affairs

INDIA AND UZBEKISTAN SIGNED A BILATERAL INVESTMENT TREATY (BIT)



India and Uzbekistan recently signed a Bilateral Investment Treaty (BIT) in Tashkent, aimed at enhancing investor confidence and promoting economic cooperation between the two nations.

Key Highlights of the Bilateral Investment Treaty (BIT)

- The BIT aims to provide appropriate protection to investors from both countries, ensuring a minimum standard of treatment and non-discrimination.
- Investor Protections:
 - Assures protection against expropriation.
 - Establishes an independent forum for dispute resolution through arbitration.
 - Promotes transparency and facilitates the transfer of funds and compensation for losses.
- Economic Cooperation: The signing reflects a mutual commitment to creating a robust investment environment, expected to pave the way for increased bilateral investments that will benefit businesses and economies in both countries.

About India- Uzbekistan Relations

- India is among **Uzbekistan's top trade partners**, with bilateral trade reaching approximately \$756.60 million.
- Indian investments in Uzbekistan span various sectors, including pharmaceuticals, amusement parks, automobile components, and hospitality. Total Indian investments amount to around \$61 million.

- India and Uzbekistan have a long-standing relationship dating back over 2,000 years, with significant diplomatic interactions in recent years enhancing bilateral ties.
- Military Collaboration: Joint military exercise, DUSTLIK.
- Multilateral Cooperation: Active cooperation in platforms like **UN, G20, BRICS, and SCO.**

INDIA-FRANCE STRATEGIC DIALOGUE



During the recent India-France Strategic Dialogue, French President Emmanuel Macron praised India's peace efforts in a meeting with National Security Advisor (NSA) Ajit Doval.

Key Highlights

- Focus on Peace Initiatives: France acknowledged India's significant role in promoting peace, particularly in the context of the ongoing Russia-Ukraine conflict.
- The dialogue reaffirmed the commitment to enhance the India-France strategic partnership, focusing on defense cooperation and collaboration in various sectors.
- Horizon 2047 Initiative: NSA Ajit Doval reiterated India's commitment to the Horizon 2047 initiative, which aims to deepen bilateral relations and cooperation over the next two decades.

- Defence Cooperation: Discussions included advancements in military capabilities, including cost reductions for Rafale-M fighter jets and potential collaborations in defense technology and manufacturing.
- Indo-Pacific Framework: Both nations expressed their intent to work together within the Indo-Pacific framework, ensuring stability and security in the region.
- Global Diplomacy: The dialogue highlighted India's growing influence in global diplomacy, with both leaders agreeing on the importance of multilateralism and a rules-based international order.

MALDIVIAN PRESIDENT'S VISIT TO INDIA



Recently, Maldives President Mohamed Muizzu concluded a four-day state visit to India, where he emphasized New Delhi's role as a valued partner in the region.

• This visit underscores the **strengthening ties between India and the Maldives,** particularly in areas of economic cooperation and security.

Key Highlights from the Visit

- Strengthening Bilateral Relations: President Muizzu's visit focused on enhancing bilateral relations, with discussions centered on trade, investment, and security cooperation.
- Five pacts were signed during the meeting, including agreements on a bilateral currency swap, training of judicial officers, prevention of corruption, law enforcement training, and youth and sports cooperation.
- **Economic Cooperation:** The two nations explored avenues for increased economic collaboration, including infrastructure development and tourism, which are vital for the Maldives' economy.
- India provided Treasury bills (T-bill) worth USD 100 million to address its urgent financing needs. India extended a USD 400 million and Rs 30 billion bilateral

- currency swap agreement to further support the Maldives in managing its financial difficulties.
- Security Partnerships: Given regional security concerns, particularly in the Indian Ocean, both leaders discussed strategies to bolster maritime security and counter-terrorism efforts.
- Both sides will collaborate on renewable energy and energy efficiency projects to enable the Maldives to meet its climate goals.
- Cultural Ties: The visit also highlighted the cultural connections between India and the Maldives, fostering goodwill and mutual understanding.
- Both sides acknowledged the importance of completing the Maldives National Defence Force (MNDF) 'Ekatha' harbour project at Uthuru Thila Falhu (UTF), funded by India, which will boost MNDF's operational capabilities.
- President Muizzu's acknowledgment of India as a "valued partner" reflects the Maldives' strategic positioning in South Asia and its commitment to maintaining strong ties with its closest neighbors.

ISRAEL HEZBOLLAH WAR



Recent military actions between **Israel and Hezbollah** have intensified, drawing attention to various militant groups in the Middle East.

- Israeli Operations: Israel has launched a "limited, localized, and targeted" ground operation against Hezbollah, following a series of airstrikes that have reportedly resulted in over 1,000 fatalities in Lebanon since early October 2023. These strikes were a response to Hezbollah's increased rocket attacks on northern Israel, which began after Hamas's unprecedented assault on Israel on October 7, 2023
- Hezbollah's Response: In retaliation, Hezbollah has fired thousands of rockets into Israeli territory, marking one of the most significant escalations since the 2006 Lebanon War. The group has claimed to possess advanced military capabilities, including a large arsenal of missiles and drones



Key Players

- Hezbollah: This Shia Islamist political party and militant group has been a significant force in Lebanon since its formation during the Lebanese Civil War. It operates as both a political entity and a military organization and is heavily supported by Iran. Hezbollah's military capabilities have been bolstered by its involvement in the Syrian Civil War, where it gained combat experience.
- Israel: The Israeli Defense Forces (IDF) have responded with extensive airstrikes targeting Hezbollah positions and infrastructure. The conflict has led to significant civilian casualties and displacement within Lebanon.
- **Regional Implications:** The ongoing conflict has implications for other militant groups in the region:
 - Iran's Influence: As Hezbollah functions as a proxy for Iran, tensions between Israel and Hezbollah may also affect Iran's relationships with other groups in the region, potentially leading to broader regional conflicts.
 - Other Militants: The situation has drawn attention to various militant factions across the Middle East that may either support or oppose Hezbollah and Israel, potentially altering alliances and strategies among these groups

INDIA TO JOIN INTERNATIONAL ENERGY EFFICIENCY HUB



- India's recent membership to the International Energy Efficiency Hub marks a significant step in its commitment to enhancing energy efficiency and sustainable development.
- The Union Cabinet, chaired by Prime Minister Narendra Modi, approved the signing of a Letter of Intent, enabling India to join this global platform dedicated to promoting energy efficiency.
- Established: The Hub was created in 2020 as a successor to the International Partnership for Energy Efficiency Cooperation (IPEEC), which India previously participated in.
- It aims to foster collaboration among member countries, share knowledge, best practices, and innovative solutions related to energy efficiency.

Membership: As of 2024, the Hub includes 16 countries: Argentina, Australia, Brazil, Canada, China, Denmark, the European Commission, France, Germany, Japan, Korea, Luxembourg, Russia, Saudi Arabia, the United States, and the United Kingdom.

Benefits for India

- **Collaboration Opportunities:** Membership provides India access to a network of experts and resources that can enhance domestic energy efficiency initiatives.
- Climate Change Contribution: By promoting energy-efficient technologies and practices, India can contribute significantly to global climate change mitigation efforts.
- Implementation Agency: The Bureau of Energy Efficiency (BEE) has been designated as the implementing agency for India's participation in the Hub. BEE will facilitate India's involvement in Hub activities and ensure alignment with national energy efficiency goals.

Strategic Importance

- Joining the Energy Efficiency Hub aligns with India's broader goals of reducing greenhouse gas emissions and transitioning towards a low-carbon economy.
- This move is a part of India's commitment to its updated Nationally Determined Contributions (NDCs) under the Paris Agreement, aiming for significant reductions in emissions intensity and increased reliance on nonfossil fuel energy sources by 2030.
- Overall, India's membership in this international forum underscores its dedication to sustainable development and positions it as an active participant in global energy.

PRESIDENT MURMU VISITED THREE-NATIONS IN AFRICA



Recently, President Droupadi Murmu of India completed a significant three-nation visit to Algeria, Mauritania, and Malawi from October 13 to 19, 2024.

 This marked the first visit by an Indian Head of State to these three African countries, aimed at strengthening diplomatic ties and enhancing cooperation.



Highlights of the Visit

• Algeria:

- The visit began in Algeria where President Murmu met with President Abdelmadjid Tebboune.
- She was awarded an honorary doctorate and discussed various areas of bilateral cooperation, including energy and defense.
- Algeria is a country in the Maghreb region of North Africa.
- It is bordered to the northeast by Tunisia; to the east by Libya; to the southeast by Niger; to the southwest by Mali, Mauritania, and Western Sahara; to the west by Morocco; and to the north by the Mediterranean Sea.

Mauritania:

- In Mauritania, President Murmu engaged with President Mohamed Ould Ghazouani.
- Focused on expanding bilateral relations and signed several Memorandums of Understanding (MoUs), including agreements on diplomatic training and visa exemptions.
- Formally known as the Islamic Republic of Mauritania, it is a sovereign country in Northwest Africa.
- It is bordered by the Atlantic Ocean to the west, Western Sahara to the north and northwest, Algeria to the northeast, Mali to the east and southeast, and Senegal to the southwest.

Malawi:

- The final leg of her trip was in Malawi, where she held discussions with President Lazarus Chakwera.
- It covered multiple sectors such as agriculture, mining, tourism, and energy.
- During this visit, several MoUs were signed, including support for establishing an Artificial Limb Fitment Centre in Malawi.
- President Murmu also emphasized the role of the Indian diaspora in strengthening ties between the two nations.
- Malawi (formerly known as Nyasaland) is a landlocked country in Southeastern Africa.
- It is bordered by Zambia to the west, Tanzania to the north and northeast, and Mozambique to the east, south, and southwest.

7TH INDIA-GERMANY INTER-GOVERNMENTAL CONSULTATIONS (IGC)

India and Germany convened the 7th Inter-Governmental Consultations (IGC) in New Delhi, chaired by Prime Minister Narendra Modi and German Chancellor Olaf Scholz, **addressing pressing global issues**.



Focus Areas:

- Increased Visa Quota for Skilled Indian Workers:
 Germany will expand annual visas for skilled Indians
 from 20,000 to 90,000, recognizing India's talent as
 an asset to German economic growth.
- Germany's "Focus on India" Strategy: Germany's strategic approach prioritizes India's skilled workforce and strengthens partnerships, underscoring a deeper level of trust.
- Reducing Dependency on China: emphasised the importance of avoiding "one-sided dependencies", especially in areas like critical raw materials, positioning India as a key partner in diversifying supply chains.
- India as a Global Manufacturing Hub: PM Modi promoted India as a trade and manufacturing hub, encouraging German businesses to "Make in India, Make for the World.
- Enhanced Defence and Security Cooperation:
 They signed agreements, including one on classified information exchange, reflecting mutual trust in defense matters.
- The Mutual Legal Assistance Treaty (MLAT) in criminal matters will strengthen legal collaboration to jointly tackle security challenges.
- Clean Energy and Sustainable Development:
 - **Green Hydrogen Roadmap:** This roadmap is a significant step towards renewable energy collaboration, aligning with the climate goals of both nations.
 - Joint Research and Development (R&D): A declaration of intent to cooperate in R&D on advanced materials, highlighting a shared commitment to technological innovation.
- Triangular Development Cooperation (TDC): It pools
 mutual strengths and experiences to offer sustainable,
 viable and inclusive projects in third countries as per
 their priorities to support the achievement of SDGs
 and climate targets in Africa, Asia and beyond.











8

MOU and Agreements

SARTHIE 1.0 INITIATIVE FOR EMPOWERING MARGINALIZED COMMUNITIES



- Recently the Department of Social Justice and Empowerment (DoSJE) and the National Legal Services Authority (NALSA) signed an MoU.
- Primary Goal: Increase awareness and accessibility to legal support and social welfare schemes for marginalized groups.
- **Beneficiary Groups**: This initiative aims to empower various disadvantaged sections, including:
 - Scheduled Castes (SCs)
 - Other Backward Classes (OBCs)
 - Senior citizens
 - Transgender persons
 - Victims of substance abuse
- Launch Date: October 1, 2024.
- **Key Focus Areas**: The initiative will work on:
 - Providing legal assistance and raising awareness about legal rights.
 - Ensuring access to social welfare schemes.
- Overall Impact: SARTHIE 1.0 aims to create a more inclusive society by supporting vulnerable groups in accessing essential services and opportunities for empowerment.

CSIR-CDRI AND ZYDUS COLLABORATE ON NEW DRUG FOR CKD-INDUCED OSTEOPOROSIS

CSIR-Central Drug Research Institute (CDRI), Lucknow, and Zydus Lifesciences Ltd signed an MOU for a new drug.



- **Launch Date**: The partnership was announced on October 1, 2024.
- Developanoral medication specifically for osteoporosis in patients with Chronic Kidney Disease (CKD).
- **Target Protein**: The drug will focus on inhibiting Sclerostin, a protein associated with osteoporosis in CKD patients.
- Advancement in Treatment: Aims to offer a safer alternative to conventional osteoporosis drugs, which often pose risks to renal health.
- **Expected Outcome**: This collaboration could significantly improve the quality of life and safety for CKD patients dealing with osteoporosis.

INDIA, NEPAL, AND BANGLADESH SIGN TRILATERAL POWER TRADE AGREEMENT



- India, Nepal, and Bangladesh signed a trilateral power trade agreement on October 4, 2024.
- Electricity Export: Nepal will export 40 MW of electricity to Bangladesh using India's transmission grid.

- **Transmission Route**: Power will flow from Nepal through the **400 KV** Dhalkebar-Muzaffarpur transmission line in India, then on to Bangladesh.
- Hydropower Development: The agreement includes a plan to develop Nepal's Sunkoshi-3 hydropower project.
- **Future Transmission Plans**: The countries will study the feasibility of establishing a new cross-border transmission line to further enhance connectivity.
- This deal strengthens regional energy cooperation and sustainable power sharing among the three nations.

DEPARTMENT OF POSTS AND AMAZON PARTNER TO STRENGTHEN E-COMMERCE LOGISTICS IN INDIA

- The Department of Posts (DoP) and Amazon signed an MoU on October 5, 2024, to enhance logistics and expand parcel delivery across India.
- **Longstanding Collaboration**: Building on their partnership since 2013, Amazon leverages DoP's extensive postal network to boost e-commerce growth and create employment opportunities.
- Key Focus Areas:
 - Operational Enhancements: Improving logistics processes to increase efficiency in parcel delivery.
 - **Capacity Sharing**: Utilizing DoP's infrastructure to support high e-commerce demands.
 - **Network Utilization**: Expanding Amazon's reach by using DoP's vast postal network across urban and rural regions.
- Impact: This partnership aims to streamline logistics, enhance delivery efficiency, and support job creation, contributing to India's e-commerce ecosystem.

INDIA AND COLOMBIA INK AUDIO-VISUAL CO-PRODUCTION AGREEMENT



- **Agreement Signed**: India and Colombia signed an audio-visual co-production pact on October 17, 2024.
- **Signatories**: Union Minister L. Murugan (India) and Vice Minister Jorge Enrique Rojas Rodriguez (Colombia).
- **Objective**: Facilitate collaboration between film producers from India and Colombia, enabling shared film-making projects.
- Resource Sharing: The agreement encourages pooling creative, technical, and financial resources for co-productions.
- **Milestone**: Colombia becomes the 17th country to establish an audio-visual co-production agreement with India.
- Expected Impact: The collaboration aims to enrich the cinematic landscape, promote cultural exchange, and expand market access for film industries in both nations.

GAIL AND VERBIO PARTNER TO DEVELOP COMPRESSED BIOGAS (CBG) PROJECTS USING AGRICULTURAL RESIDUE



- GAIL and VERBIO signed an MoU on October 28, 2024, to develop CBG projects using agricultural residue.
- **Objective**: Promote sustainable energy solutions by converting agricultural waste into renewable energy.
- Project Scope:
 - Location Identification: Both companies will work to identify suitable locations for setting up CBG plants.
 - **Feasibility Studies**: Detailed feasibility studies will be conducted to assess the viability of each potential site.
 - **Joint Venture Formation**: GAIL and VERBIO plan to form a Joint Venture (JV) to streamline the planning, development, and operation of the projects.
- Significance of the Collaboration:
 - Sustainable Energy Production: The use of agricultural residue, a renewable and abundant source, promotes eco-friendly fuel alternatives.
 - Waste Utilization: By converting agricultural residue into biogas, the initiative helps address waste management challenges while producing clean energy.



- Economic and Environmental Benefits: The collaboration will boost rural income, reduce dependency on fossil fuels, and lower carbon emissions by utilizing waste for energy production.
- Expected Outcome: This partnership is anticipated to support India's sustainable energy goals, reduce the environmental impact of agricultural waste, and enhance the availability of clean energy through CBG production.

RITES AND NMDC COLLABORATE TO ENHANCE RAIL CONNECTIVITY FOR MINING OPERATIONS



- RITES (Rail India Technical and Economic Service) and NMDC (National Mineral Development Corporation) signed a Memorandum of Agreement (MoA) on October 28, 2024.
- Purpose: Provide project management consultancy (PMC) services to improve rail connectivity for NMDC's mining operations.
- Scope of Services:
 - Feasibility Studies: RITES will conduct in-depth feasibility assessments to determine optimal rail connectivity solutions.
 - Detailed Project Reports (DPRs): Preparation of comprehensive project reports outlining project scope, budget, and timelines.
 - End-to-End Project Management: RITES will manage the entire project from concept through commissioning, ensuring efficient implementation.
- Expected Impact: The collaboration aims to streamline NMDC's logistics, enhance rail connectivity to mining sites, reduce transportation costs, and improve the efficiency of mineral exports.

AUDIOVISUAL CO-PRODUCTION AGREEMENT BETWEEN INDIA AND COLOMBIA

The agreement was signed on **15th October 2024** at the **National Media Centre, New Delhi**.



Signatories:

- India: Dr. L. Murugan, Hon'ble Minister of State for Information & Broadcasting
- Colombia: His Excellency Mr Jorge Enrique Rojas Rodriguez, Vice Minister of Foreign Affairs of Colombia
- Key Objectives of the Agreement:
 - Co-Production Benefits: Producers from both countries will pool their creative, artistic, technical, financial, and marketing resources for co-productions.
 - Cultural Exchange: The agreement will foster the exchange of art and culture between India and Colombia.
 - Strengthening Ties: It aims to create goodwill and better understanding among the people of both nations, thus boosting cultural ties.
- Current Co-Production Status:
 - India has co-production treaties with 16 countries, resulting in 29 projects over the past five years.
 - Colombia is the 17th country to sign such an agreement with India.

INDIAN NAVY SIGNS MOU WITH BAJAJ ALLIANZ LIFE INSURANCE FOR PROVIDING INSURANCE TO NAVAL CIVILIANS





• Objective:

 To provide life insurance solutions to Naval Civilians to offer financial relief in case of untimely death or other eventualities.

Key Focus Areas:

- Affordable Insurance Options: Bajaj Allianz Life Insurance will offer a range of insurance products, including Term Insurance, at affordable premiums for Naval Civilians.
- **Voluntary Participation:** The insurance scheme will be available to Naval Civilians **voluntarily**.

Context:

 The Year of Naval Civilians (2024) has been declared by the Indian Navy to emphasize the importance of improving the work environment and welfare measures for naval civilian personnel.

Significance:

- The MoU aims to provide monetary relief to the families of Naval Civilian employees in case of untimely death or other covered events.
- The initiative aligns with the **welfare focus** to enhance the **quality of life** for **Naval Civilians**.

ICMR SIGNS MOU WITH NTPC VIDYUT VYAPAR NIGAM TO BOOST SOLAR POWER USAGE IN HEALTH RESEARCH FACILITIES



On 4th October 2024, the Indian Council of Medical Research (ICMR) and NTPC Vidyut Vyapar Nigam (NVVN) signed an agreement for solar power usage in health research.

• Objective:

 To harness solar power across ICMR institutes to promote sustainable energy adoption in India's healthcare and research sector.

• Key Features of the Agreement:

 Solar Panel Installation: NVVN will supply, install, test, and maintain rooftop solar panels at 15 ICMR institutes with a combined capacity of 4,559 KW.

- Power Purchase Agreement (PPA): A fixed solar tariff for 25 years, ensuring long-term cost efficiency and sustainability for ICMR's operations.
- **Existing Impact: Seven ICMR institutes** are already benefiting from solar power under earlier projects.
- Environmental Benefits: The solarization effort will significantly reduce ICMR's carbon footprint and energy expenditure.
- Alignment with National Goals: The initiative supports India's renewable energy goals and the vision of "Atmanirbhar Bharat" (Self-reliant India), contributing to a cleaner and greener future.
- Long-Term Significance: The collaboration positions ICMR as a leader in green energy adoption within the biomedical field, fostering sustainability in healthcare research.

INDIAN RAILWAYS SIGNS MOU WITH SWITZERLAND'S DETEC

On 29 October 2024, Indian Railways and the Federal **Department of the Environment, Transport, and Communications (DETEC)** of the Swiss Confederation signed an agreement

Objective of the MoU:

- To enhance technical cooperation between India and Switzerland in areas including technology sharing, track maintenance, and infrastructure modernization.
- Aligning with the Indian government's commitment to modernizing Indian Railways.

• Kev Areas of Collaboration:

- Technology Sharing
- Track Maintenance
- Management and Construction
- Operational Efficiency Improvement
- Safety Standards Enhancement
- Service Quality Improvement

Renewed MoU Details:

- The original MoU was signed on 31 August 2017 for a five-year period.
- Areas of focus include:
 - Traction Rolling Stock
 - Electric Multiple Units (EMU) and Train Sets
 - Traction Propulsion Equipment
 - Freight and Passenger Cars
 - Tilting Trains
 - Railway Electrification Equipment
 - Train Scheduling and Operational Improvements
 - Railway Station Modernization
 - Multimodal Transport Solutions
 - Tunneling Technology



• Joint Working Group (JWG):

- The JWG was formed to facilitate collaboration between Indian Railways and Swiss Railways.
- Key discussions in past JWG meetings (October 2019, August 2022, October 2023):
 - Freight and Passenger Cars
 - Railway Electrification Equipment
 - * Railway Station Modernization
 - Tunneling Technology
- The 2023 meeting highlighted investment opportunities for Swiss firms in the Indian Railway sector.

• Expected Outcomes:

- Enhance efficiency and reliability of railway services in India.
- Improvement in passenger and freight operations.
- Supply of machinery, materials, and tunneling consultancy services by Swiss companies.

IASST GUWAHATI SIGNS MOU WITH BHARAT BIOTECH INTERNATIONAL LTD. (BBIL) ON TECHNOLOGY TRANSFER



Institute of Advanced Study in Science and Technology (IASST), Guwahati signed an agreement for technology transfer.

• Objective of the MoU:

- To collaborate on R&D and product development for innovative health products derived from probiotics isolated from traditional fermented foods of Northeast India.
- Probiotics aimed at addressing metabolic diseases, improving gut health, and promoting healthy aging.

• Key Highlights of the Agreement:

- Collaboration aligns with the vision of promoting the bioeconomy of Northeast India by utilizing its rich biodiversity.
- Bharat Biotech will assist in the commercialization of the technology, leveraging its global expertise in biopharmaceuticals, vaccines, and health solutions.

 The agreement involves pre-clinical and clinical studies for the probiotics to ensure they meet regulatory standards.

Roles and Responsibilities:

- IASST: Lead the scientific research, contribute its understanding of probiotics, and spearhead research initiatives.
- **Bharat Biotech:** Manage commercialization, conduct necessary pre-clinical and clinical trials, and ensure product meets regulatory standards.
- Monitoring Committee: A committee from all stakeholders to oversee project progress and ensure timely achievement of milestones.

Expected Outcomes:

- The probiotic products will offer natural solutions for lifestyle diseases such as diabetes and obesity.
- The collaboration aims to advance India's biotechnology sector by turning academic research into commercially viable health solutions.
- IASST will receive royalties from the sales of products developed through this partnership.

SAI SIGNS MOU WITH MAHARASHTRA GOVERNMENT TO DEVELOP NATIONAL CENTRE OF SPORTS EXCELLENCE IN MUMBAI



Sports Authority of India (SAI) and Government of Maharashtra signs an agreement to develop national centre of sport excellence.

Key Highlights

• Purpose:

- The MoU focuses on the development of the National Centre of Sports Excellence at Kandivali, Mumbai.
- The project aims to create world-class sports infrastructure for Indian athletes.

• Land Allocation:

• The Maharashtra Cabinet (30 September 2024) allocated 37 acres of land in Akurli, Malad, and Vadhavan in Kandivali, Mumbai, for the development of the sports centre.



• The land is leased to SAI for 30 years at the nominal rate of Re. 1 per annum.

• Infrastructure Development:

- Modern facilities will be developed, including:
 - Athlete hostels with air conditioning.
 - Central kitchen and dining facilities.
 - International-standard hockey turf.
 - Multipurpose sports hall.
 - High-performance sports science centre for injury management and rehabilitation.
- Estimated investment for the infrastructure: Rs. 500 crore, with funding from government budgetary allocations and CSR contributions.

• Purpose of the Centre:

• The centre will serve as a **National Centre of Excellence** and regional administrative hub for

- Maharashtra, Goa, and Dadra and Nagar Haveli and Daman and Diu.
- The focus will be on implementing central government schemes like **Khelo India** and **Fit India**.

Impact on Athletes:

- The centre will offer high-quality diet, sports training, and expert sports science support.
- Local athletes will have year-round access to multisport facilities through the Come and Play scheme, which includes disciplines like football, athletics, and wrestling.

Significance:

 The project is part of India's ongoing efforts to modernize sports infrastructure and promote sports excellence at both national and international levels.





Polity and Governance

FIVE MORE CLASSICAL LANGUAGES



The Union Cabinet has recently approved the **recognition** of five additional languages as "classical", significantly

of five additional languages as "classical", significa

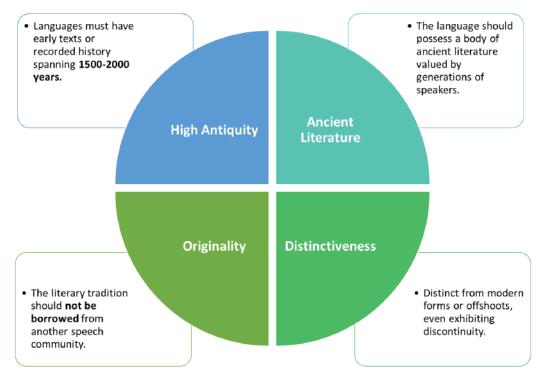
expanding India's list of culturally significant tongues. The newly designated languages are:

- Marathi
- Bengali
- Assamese
- Pali
- Prakrit
- This decision, announced on October 3, 2024, nearly doubles the number of classical languages in India from six to eleven, with the previously recognized languages being Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia

Background and Criteria

- The inclusion of these languages follows a revision of the criteria for classical language status.
- Previously, a language had to demonstrate an "original literary tradition", which was deemed challenging to prove.

• The updated criteria now focus on:



Significance

The recognition as classical languages aims to:

- Preserve Cultural Heritage: These languages are seen as custodians of India's rich cultural and historical legacy.
- **Promote Employment Opportunities:** The designation is expected to create job opportunities in academia and research, particularly in archiving and translating ancient texts
- **Encourage Study and Research**: The government will provide various benefits to promote the study of these languages, including establishing
- Centres of Excellence and offering international awards for scholarly excellence
- This initiative reflects the government's ongoing commitment to celebrate and preserve India's linguistic diversity and cultural heritage.

DIGILOCKER PARTNERS WITH UMANG



- The National e-Governance Division (NeGD) has recently integrated the UMANG app with India's digital wallet-DigiLocker.
- This integration aims to enhance citizen access to a variety of government services, allowing users to manage multiple services conveniently through a unified platform.

Key Features of the Integration

- Seamless Access: The collaboration allows citizens to access a broad range of government services directly through the DigiLocker app, streamlining interactions with the government in a digital-first manner.
- User-Friendly Process: To utilize this new feature, users need to:
 - 1. Update their DigiLocker app to the latest version.
 - 2. Open the DigiLocker app on their Android device.
 - 3. Click on the UMANG icon within the app.

- 4. Install the UMANG app when prompted.
- 5. Access various government services directly through DigiLocker.

Benefits of the Integration

- Enhanced Convenience: Users can manage multiple government services from a single application, significantly improving user experience and accessibility.
- Broader Service Offerings: The integration expands
 the range of services available on DigiLocker, which
 already includes access to personal and official
 documents such as driver's licenses and academic
 certificates.
- **Future Developments:** While currently available only on Android, plans for an iOS version of the UMANG app are in progress, further broadening access for users.

This initiative reflects India's ongoing commitment to **digitizing government services** and making them more accessible to citizens, thereby enhancing ease of living and interaction with governmental bodies.

STRENGTHENING TEACHING-LEARNING AND RESULTS FOR STATES (STARS) KNOWLEDGE SHARING WORKSHOP



The Ministry of Education organized a two-day Strengthening Teaching-Learning and Results for States (STARS) knowledge-sharing workshop in **Bhopal**, **Madhya Pradesh**, from September 30 to October 1, 2024.

- The workshop focused on School-to-Work Transition and Strengthening the Assessment System and aimed to enhance educational outcomes and facilitate collaboration among states in India.
- The workshop was inaugurated by Shri Uday Pratap Singh, Minister of Transport and School Education in Madhya Pradesh.
- Focus Areas: The workshop concentrated on two main themes:
 - School-to-Work Transition: Discussions included bridging the gap between education and employment, with insights from various speakers on



- integrating skill development into the educational framework.
- Strengthening Assessment Systems: The second day focused on improving assessment models to enhance student outcomes, featuring presentations on innovative practices in educational assessment.
- Various panel discussions were held, covering topics such as:
 - Psychometric analysis and career counseling in skill education.
 - Partnerships between schools and industry to enhance work-based learning opportunities.
 - Effective strategies for integrating assessment outcomes with learning objectives.

About Strengthening Teaching-Learning and Results for States (STARS)

- It is a **project that aims to improve the quality of education** in India and was launched in October 2020.
- The STARS project aims to improve student outcomes and school education governance in India. It focuses on systemic reforms and improving the quality of education in participating states.
- The project targets children from ages 3 to 18, teachers, and educational institutions.
- The STARS project is a centrally sponsored scheme implemented in partnership with the World Bank and the Ministry of Education (MoE).
- It became effective on February 23, 2021, and is being implemented for five years, up to FY: 2024-25.

NEW 'LADY JUSTICE' STATUE UNVEILED BY SUPREME COURT



Recently, the Supreme Court of India **unveiled a new Lady Justice statue**, commissioned by Chief Justice D.Y. Chandrachud on October 17, 2024.

 This marks a departure from traditional representations of Lady Justice.

Key Features of the New Statue

- Design Changes: The new statue is depicted without a blindfold, symbolizing that the law is aware and sees all individuals equally, rather than being blind to their circumstances, promoting the idea of equality in justice.
 - This contrasts with the traditional image where Lady Justice is blindfolded, representing impartiality and the ideal that justice should be administered without bias.
- Symbolism: In place of the sword, which traditionally represented the authority and punitive power of the law, the new statue holds a copy of the Indian Constitution.
 - This change signifies a shift towards constitutional values and emphasizes justice as rooted in rights and equality rather than punishment.
- Cultural Representation: The statue is clothed in a saree, reflecting Indian cultural identity and moving away from Western depictions of Lady Justice.
 - This design choice aligns with efforts to make the judiciary more representative of Indian society.
- Retention of Scales: The scales held by Lady Justice remain, symbolizing balance and fairness in weighing evidence and arguments from both sides before reaching a judgment.
- In 2024, a new 6-foot statue was unveiled by the Supreme Court of India, created by Vinod Goswami.
- The unveiling of this statue is seen as part of a broader initiative to decolonize legal symbols in India, moving away from colonial legacies that have historically influenced the judicial system.

SC REAFFIRMED "SOCIALIST" AND "SECULAR" AS PART OF BASIC STRUCTURE



- Recently, the Supreme Court of India reaffirmed that the terms "socialist" and "secular" are integral to the Constitution's Basic Structure, rejecting a petition that sought their removal from the Preamble.
- This ruling was delivered on October 21, 2024, during a hearing of petitions challenging the 42nd Amendment, which added these terms in 1976.



- The court acknowledged that the terms were introduced during a politically tumultuous period under the Emergency through the 42nd Constitutional Amendment Act of 1976 but maintained that
- their inclusion reflects India's commitment to these principles.
- It stated that these terms hold specific significance in the Indian context, distinct from their Western interpretations.

Arguments for Removing "Socialist" and "Secular" from the Preamble

Constituent Assembly Rejection

 On November 15, 1948, Professor KT Shah proposed adding "secular" and "socialist" to the Preamble, but the Constituent Assembly rejected this proposal. Attempts to include "secular" in Article 18 were also dismissed.

Inconstitutionality Claim

• A petitioner argued that the inclusion of these terms in the 42nd Amendment Act of 1976 was unconstitutional, as the Constitution's adoption date is fixed at November 26, 1949. However, the Supreme Court recognized the Constitution as a living document that evolves with societal needs.

Representation of People Act Amendment

• Petitioners challenged the 1989 amendment, which required political parties to pledge allegiance to socialism and secularism for registration, arguing it infringed on their freedom of speech under Article 19(1)(a).

Ambedkar's Concerns

• It was argued that Dr. B.R. Ambedkar believed including "socialism" could limit personal liberty, raising concerns about potential overreach in defining state ideology.

Historical Context:

• The petitioners pointed out that India functioned as a secular state before 1976, questioning the necessity of explicitly stating it in the Preamble.

Indian Secularism (Positive Secularism)

- Key difference between Western Secularism and Indian Secularism:
 - Indian secularism refers to treating all religions equally and without bias among its members.
 - Western Secularism refers to Western civilization's separation of state and religion and worldwide religious freedom.
- Indian Secularism was a unique form of secularism tailored to India's needs. It does not practice secularism like France nor identify a state-sponsored religion.
- It was different from that of countries like the USSR or China. It didn't involve nationalising all industries but focused on selective nationalisation where necessary.

KARMAYOGI SAPTAH

- Prime Minister Narendra Modi launched the Karmayogi Saptah, also known as National Learning Week, on October 19, 2024, at the Dr. Ambedkar International Centre in New Delhi.
- This initiative is part of the broader Mission Karmayogi, which was introduced in September 2020 to enhance the capabilities of civil servants in India.



- The primary goal of Karmayogi Saptah is to foster continuous learning among government employees, ensuring they are equipped with the necessary skills to meet evolving governance demands and contribute effectively to national development.
- National Learning Week (NLW) will provide fresh impetus towards individual and organisational capacity development for Civil Servants creating a "One Government" message and aligning everyone with national goals and promoting lifelong learning.



 The iGOT platform, integral to Mission Karmayogi, has seen significant engagement, with over 4 million government employees registered and more than 1.5 crore certifications issued across various courses.

GRAM PANCHAYAT-LEVEL WEATHER FORECASTING INITIATIVE



- The Gram Panchayat-Level Weather Forecasting initiative was recently launched by the Indian
- The forecasts will be disseminated through:

- government to enhance climate resilience and support rural communities.
- The initiative was launched on **October 24, 2024.**
- The initiative is a collaborative effort involving:
 - The Ministry of Panchayati Raj (MoPR).
 - The India Meteorological Department (IMD).
 - The Ministry of Earth Sciences (MoES).
- Objective: To provide localized weather forecasts at the gram panchayat level, enabling farmers and rural communities to make informed decisions regarding agricultural activities and disaster preparedness.

Features

- **Localized Forecasts:** For the first time, over 2.5 lakh gram panchayats will have access to localized weather information, including:
- Daily updates on temperature, rainfall, wind speed, cloud cover, and relative humidity.
- A five-day weather forecast with hourly updates.
- Forecasts include critical weather parameters such as: Temperature, Rainfall, Wind speed, Cloud cover.

e-GramSwaraj:

A platform for efficient governance and project tracking.

Gram Manchitra:

A spatial planning tool providing geospatial insights for development projects.

Meri Panchayat App:

An app that fosters community engagement.



10

Summit and Conference

PM MODI ATTENDS 16TH BRICS SUMMIT IN KAZAN, RUSSIA



- Prime Minister Modi attends the 16th BRICS Summit in Kazan, Russia.
- Expanded BRICS: BRICS now includes Brazil, Russia, China, South Africa, Iran, Egypt, Ethiopia, and UAE.
- BRICS Purpose:
 - Coalition promoting cooperation among emerging economies, aiming for global economic growth and development.
 - Promoting a multipolar world and addressing global challenges.

• Main Themes:

- Focus on multilateralism: Fair, equal global cooperation.
- Discussions on continued collaboration and new initiatives for development and security.

Economic and Political Goals:

- Push for economic sovereignty: Reducing BRICS countries' dependence on Western powers.
- Boost global economic growth through BRICS cooperation.

• Strategic Projects:

- President Putin's infrastructure focus: Arctic Sea route and North-to-South corridor.
- Aims to improve trade links between Eurasia and Africa, enhancing goods transportation.

• Historical Context:

- First BRICS Summit: 2009 in Russia.
- BRICS represents 42% of the global population and 23% of the world's economy.

- Term "BRICS" coined by economist Jim O'Neill in 2001. Focuses on economic and political cooperation among emerging economies.
- **Global Cooperation**: BRICS seeks a fairer international order through the **Kazan Declaration**.
- Bilateral Meetings: Modi to meet with leaders from China, Turkey, and Iran for discussions on mutual interests.
- **Ukraine Conflict**: Bilateral talks between Modi and Putin on the Ukraine conflict and diplomatic solutions.
- India-Russia Trade: Target to boost bilateral trade to \$100 billion by 2030, with further discussions in November.
- Cultural Exchanges: Strengthening cultural ties through Indian studies, films, and people-to-people exchanges with BRICS nations.

COP16 TARGETS GLOBAL AGREEMENT ON GENETIC INFORMATION USE AND FAIR COMPENSATION



- The COP16 nature summit in October 2024 focuses on negotiations regarding the use of genetic information from nature, known as Digital Sequence Information (DSI).
- What is DSI: Refers to the genetic codes of living organisms, stored in digital databases, accessible for research and commercial use.
- **Importance of DSI**: Used in industries like pharmaceuticals, cosmetics, and agriculture; linked to sectors generating \$1.6 trillion annually.
- Biodiversity-Rich Countries' Concerns: Nations like Brazil and India seek fair compensation for the

use of their genetic resources, wary of exploitation by corporations.

Negotiation Goals at COP16:

- Establish a system for payment and compensation for DSI use.
- Proposed charges range from 0.1% to 1% of annual revenue in key sectors, potentially raising \$1 billion to \$10 billion per year.
- Funds would support biodiversity conservation and enhance genetic research in poorer nations.
- **Implementation Challenges**: Countries must adopt the rules post-agreement; voluntary payment systems might accelerate the process.
- **Balance of Interests**: Non-profit research must retain free access to DSI, ensuring scientific progress and biodiversity protection.
- **Future of DSI**: A successful deal could lead to a transparent global system that encourages innovation while protecting biodiversity and ensuring fair compensation.
- Cali Fund: The Cali Fund, established at COP16, is
 a global fund designed to share the benefits derived
 from the use of Digital Sequence Information (DSI),
 which involves the digital representation of genetic
 data. The fund aims to ensure a fairer deal for nature
 and communities by ensuring that companies profit
 from nature's genetic resources in a sustainable and
 equitable manner.

URBAN MOBILITY INDIA CONFERENCE 2024



- 17th Urban Mobility India Conference and Exhibition begins in Gandhinagar, Gujarat.
- Organizers and Participants: Organized by the Union Ministry of Housing and Urban Affairs; over 3,000 participants including senior officials, policymakers, and urban transport experts.

Main Focus Areas:

- Standardization of Urban Mobility Solutions: Establishing uniform standards for transport systems to enhance efficiency and accessibility.
- Integration of Urban Mobility Modes: Improving connectivity by enabling different transport modes to work together.
- **Key Sessions**: Three days of expert sessions sharing best practices and innovative urban transport solutions.

- Awards and Recognition: Cities will be awarded in eight categories for excellence in urban management during the concluding session led by Union Minister Manohar Lal Khattar.
- Importance of Urban Mobility: Efficient transport systems drive economic growth and improve residents' quality of life.
- Policy Influence: Outcomes may shape future urban transport policies in India, promoting sustainability and efficiency.
- **Networking Opportunities**: The conference fosters collaboration and knowledge-sharing among urban transport stakeholders.

INDIA MOBILE CONGRESS 2024: AI INNOVATIONS AND SMARTPHONE DEALS



- India Mobile Congress 2024 (IMC 2024) held in New Delhi, with AI as the central theme.
- **Inauguration**: Prime Minister Narendra Modi inaugurated the event, emphasizing India's technological growth.
- AI Use Cases: Focus on practical AI applications in areas like:
 - Conservation: Resource preservation.
 - Convenience: Enhancing user experience.
 - Efficiency: Streamlining operations.
 - Safety: Improving security measures.
 - Automation: Reducing human involvement in hazardous tasks.
 - Healthcare: Addressing shortages in remote regions.

• Notable Innovations:

- Bharti Airtel: AI-powered spam detection tool for real-time alerts.
- **Ericsson**: 5G-powered robotic dog, Rocky, for emergency assistance.
- Nokia: Showcased 5G, 6G, and AI technologies focused on sustainability.
- **Reliance Jio**: Previewed PhoneCall AI for call transcription and summaries.
- Vodafone Idea: Demonstrated real-time diagnostic transmission for remote consultations.



• Startups and Innovations:

- Humanoid co-workers for mental health support.
- AI-driven de-addiction programs.
- AI tools for HR tasks like hiring and payroll automation.
- Education Sector Involvement: IITs and educational institutions showcased AI innovations and engaged with industry leaders; students benefited from mentorship opportunities.

CLIMATE AND HEALTH AFRICA CONFERENCE 2024: ADDRESSING CLIMATE'S IMPACT ON HEALTH



- Inaugural Climate and Health Africa Conference (CHAC 2024) held from October 29 to 31 in Harare, Zimbabwe.
- **Attendees**: Over 400 representatives from 54 African countries, including government officials, health experts, and researchers.

Purpose of CHAC 2024:

- Address the urgent health impacts of climate change in Africa.
- Share innovations and best practices for climate resilience in health.
- Incorporate research into understanding climate health mechanisms.
- Develop effective adaptation strategies.

Key Themes:

- Health impacts of climate change.
- Developing equitable climate research.
- Translating research into actionable policy.
- Redefining Africa's health approach within climate context.

Expected Outcomes:

- Scientific publications.
- African Health and Climate Declaration.
- Action plans for implementation.
- New partnerships and funding commitments.

Africa's Climate Challenges:

- Africa suffers disproportionately from climate change effects despite contributing only 3% of global carbon emissions.
- The UN IPCC reports over 800 million Africans are food insecure.
- African Development Bank estimates climaterelated losses between \$289.2 billion to \$440.5 billion annually.

• Health Implications of Climate Change:

- Droughts and climate-sensitive diseases, especially in the Horn of Africa and the Sahel.
- HIV crisis in Eswatini worsened by climate change, affecting treatment access and care.
- CHANCE Networking: Concurrent Climate and Health Africa Network for Collaboration and Engagement (CHANCE) initiative promotes:
 - Knowledge exchange and information sharing.
 - Collaboration on climate and health research.
 - Advocacy for evidence-based policy development.
 - · Access to climate financing.

Host and Collaborators:

- Hosted by the Centre for Sexual Health and HIV/ AIDS Research Zimbabwe (CeSHHAR).
- Collaborating with Zimbabwe's Ministry of Environment, Climate and Wildlife, and the Ministry of Health and Childcare.
- Theme: "Cultivating Resilience in Health", focusing on unified and equitable climate adaptation strategies.

14TH BIENNIAL LAKE CONFERENCE



- 14th biennial Lake Conference held from October 17 to 20, 2024, in Moodbidri.
- Theme: Lake 2024 Wetlands for Human Wellbeing.
- Organizers: Wetlands Research Group at the Indian Institute of Science and Alva's Education Foundation.



Key Recommendations and Focus Areas

1. Ecologically Sensitive Panchayats:

- Urged government to notify ecologically sensitive panchayats under Section 5(1) of the Environment Protection Act 1986.
- Goal: Enhance ecosystem health through locationspecific conservation practices.

2. Effectiveness of Biodiversity Management Committees (BMCs):

- Noted ineffectiveness of most Gram Panchayat BMCs under the Biodiversity Act 2002.
- Suggested zilla panchayat oversight to improve ecosystem health and resource management.

3. Phased Programme for Improvement:

- Recommended a phased program supervised by State Biodiversity Boards.
- Aims to enhance local biodiversity management and strengthen the Biodiversity Act's implementation.

4. Introduction of Gross Ecosystem Product (GEP):

- Proposed GEP as a new metric to measure Nature's contributions to society.
- Highlighted limitations of GDP, which often overlooks resource depletion and ecological degradation.

5. Natural Capital Accounting Framework:

- Emphasized the need for a natural capital accounting framework to integrate ecological benefits into government evaluations.
- This framework would support eco-compensation policies based on ecosystem services.

6. Hydro-Centric Development Approach:

- Advocated for a hydro-centric development approach focusing on strict protection of water bodies and catchments.
- Urged avoidance of intrusive projects that could harm these ecosystems.

7. Formation of Western Ghats Task Force:

- Recommended establishing a Western Ghats Task Force for each peninsular Indian state.
- The task force would ensure the sustainable use and conservation of water and biodiversity in the region.

SEVENTH SESSION OF INTERNATIONAL SOLAR ALLIANCE (ISA) ASSEMBLY

The event, held from November 3-6, 2024, in New Delhi, India, was attended by representatives from 120 countries. It was led by Shri Pralhad Joshi, India's Union Minister of New and Renewable Energy.

Purpose of ISA Assembly:

- Promote global cooperation on solar energy.
- Improve energy access, energy security, and support transition to renewable energy.



Key Initiatives Discussed:

- **SolarX Startup Challenge**: Supports new businesses in solar energy with scalable ideas.
- STAR-C Initiative: Provides training and infrastructure to ensure high-quality solar products.
- **Global Solar Facility**: Increases investments in regions lacking solar energy access.
- First International Solar Festival: Encourages creativity and collaboration in solar energy development.

Challenges in Expanding Solar Energy:

- Insufficient investments for solar projects.
- Infrastructure limitations for installation and maintenance.
- Need for domestic manufacturing to reduce import dependency.

International Cooperation:

- India and France lead discussions, highlighting the importance of teamwork.
- Collaborative efforts to increase solar investments and share technologies globally.

• Future Plans:

- Increase funding for solar energy projects.
- Support local entrepreneurs in the solar industry.
- Strengthen policies promoting solar energy adoption.

Importance of Solar Energy:

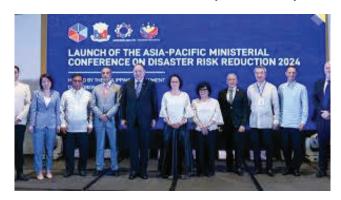
- Focus on making solar power more accessible and affordable.
- ISA's efforts critical to achieving sustainable development goals and combating climate change.

• About the International Solar Alliance (ISA):

- Founded in 2015 by India and France.
- Goal: Achieve 1,000 GW of solar energy capacity by 2030.
- Headquarters: Gurugram, India.
- First international organization based in India, works with global organizations like the UN.



ASIA-PACIFIC MINISTERIAL CONFERENCE ON DISASTER RISK REDUCTION (APMCDRR) 2024



The Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR) 2024 was held in Manila, Philippines, on October 17, 2024. The Indian delegation was led by Shri Nityanand Rai, Union Minister of State for Home Affairs.

Conference Agenda:

- Focus on reducing disaster risks in the Asia-Pacific region.
- Address increasing frequency and severity of natural disasters due to climate change.

India's Commitment:

- Emphasis on proactive and inclusive disaster risk reduction (DRR).
- Reference to Prime Minister Modi's 10-point agenda for Disaster Risk Reduction, highlighting India's strategic approach.

• Focus Areas for Disaster Risk Reduction:

- Early Warning Systems (EWS): Implementation of advanced technologies like the Common Alerting Protocol (CAP) and Cell Broadcast Systems for fast disaster alerts.
- **Disaster Resilient Infrastructure**: Promotion of infrastructure that withstands natural disasters, encouraging sustainable development.
- **Financial Provisions**: Creation of financial mechanisms to manage resources effectively for disaster risk reduction.

• Technological Advancements:

- Progress in Indian Tsunami Early Warning Centre (ITEWC): Provides tsunami warnings to 25 countries, enabling better preparedness.
- Coalition for Disaster Resilient Infrastructure (CDRI):
 - Initiative by India with 47 member countries.
 - Focus on providing technical assistance and building capacity for disaster-resilient infrastructure investments.

• Financial Investments in Disaster Risk Reduction:

- 15th Finance Commission allocated USD 30 billion for the National Disaster Risk Management Fund (NDRMF) and State Disaster Risk Management Fund (SDRMF) (2021-2026).
- Aim: Strengthen disaster response and recovery capabilities.

• India's Leadership in Disaster Preparedness:

 India showcased its strong leadership and commitment to enhancing disaster preparedness and resilience at APMCDRR 2024.

PRIME MINISTER ATTENDS THE 19TH EAST ASIA SUMMIT (EAS)



The 19th East Asia Summit (EAS) took place on October 11, 2024, in Vientiane, Lao PDR.

• India's Role in the Indo-Pacific:

- Emphasis on the significance of ASEAN (Association of Southeast Asian Nations) in shaping the future of the region.
- Introduction of India's Pacific Vision, focusing on collaboration with Quad nations (India, Australia, Japan, and the United States) to promote peace.

Act East Policy:

- Participation reflects India's Act East Policy, aimed at strengthening relations with Southeast Asian countries.
- Advocacy for a free, open, and inclusive Indo-Pacific, fostering opportunities for growth and prosperity for all.

Common Initiatives:

- Comparison of India's Indo-Pacific Ocean Initiative with ASEAN's Outlook on the Indo-Pacific, emphasizing cooperation over expansionism.
- Shared commitment to regional development and collaboration to address issues.

Support for EAS Mechanism:

- Reaffirmation of India's support for the East Asia Summit (EAS).
- Acknowledgment of member countries' backing for reviving Nalanda University.



 Invitation extended for an upcoming Heads of Higher Education Conclave to enhance educational cooperation.

• Dialogue and Diplomacy:

- Emphasis on resolving global conflicts, especially in the Global South, through dialogue and humanitarian solutions rather than military action.
- Advocacy for peaceful dispute resolution and providing relief to conflict-affected populations.

Global Threats:

- Highlighting serious threats such as terrorism and cybersecurity.
- Call for collective efforts among nations to ensure global peace and security.

• Expressions of Gratitude:

- Thanks to the Prime Minister of Laos for hosting the summit.
- Support expressed for Malaysia as the new ASEAN Chair.
- Reaffirmation of India's commitment to collaborating closely with ASEAN and regional partners.

• About the East Asia Summit (EAS):

- Established in 2005 to enhance cooperation in the region.
- Comprises 18 countries, including 10 ASEAN members and partners like India, China, Japan, South Korea, Australia, and New Zealand.
- Focuses on security, economic growth, and sustainable development, promoting dialogue over military conflict.

INDIA'S MARITIME DECARBONIZATION CONFERENCE

India's Maritime Decarbonization Conference was held on October 5, 2024, in New Delhi. The event was co-hosted by the Ministry of Ports, Shipping and Waterways and the Asian Development Bank.

• Objective:

- Discuss strategies for making shipping and port operations more environmentally friendly.
- Focus on sustainable practices to combat climate change.

• Importance of the Maritime Sector:

- Secretary TK Ramachandran highlighted the sector's role in the economy and its impact on climate change.
- Commitment from the Indian government to enhance sustainability in maritime operations.

Green Initiatives:

- Harit Sagar Green Port Guidelines: Rules for ports to adopt green energy and eco-friendly practices.
- Harit Nauka Green Transition Guidelines: Focus on sustainable shipping practices.

• Both guidelines aim to model clean energy use and pollution reduction across the maritime sector.

Net-Zero Emissions Goal:

- Emphasis on India's aim to achieve net-zero carbon emissions by 2070.
- Alignment with Maritime India Vision 2030 for sustainable maritime practices.

• Key Discussion Themes:

- Development of green infrastructure for ports utilizing eco-friendly energy.
- Promotion of clean harbor crafts to reduce pollution.
- Exploration of zero-carbon fuels, such as hydrogen and ammonia.
- Strategies for emission reduction from ships and ports.
- Electrification of inland waterways to operate on electric energy.

Definition of Maritime Decarbonization:

- Refers to reducing greenhouse gas emissions from ships, which currently contribute nearly 3% of global CO2 emissions.
- The International Maritime Organization (IMO) targets a 50% reduction in emissions by 2050.

Challenges and Solutions:

- Transitioning to alternative fuels (ammonia, hydrogen, methanol) is costly and requires new infrastructure.
- Adoption of wind-assist technologies to decrease fuel consumption in shipping.

• Significance:

 The conference is part of broader efforts to enhance the sustainability of the maritime industry and address global climate concerns.

INDO-PACIFIC REGIONAL DIALOGUE (IPRD) 2024

The Indo-Pacific Regional Dialogue (IPRD) 2024 took place on October 4, 2024, in New Delhi. The theme of the event was "Resource Geopolitics and Security in the Indo-Pacific".





• Purpose of IPRD:

- Strategic platform for the **Indian Navy to discuss** maritime security issues in the Indo-Pacific.
- Encourages cooperation among countries to address challenges like piracy, resource competition, and security threats.

• Focus of 2024 Theme:

- Discussions on marine resources and their geopolitical influence.
- Covers both traditional resources (oil and gas) and emerging resources (rare minerals).

• Importance of Offshore Energy Resources:

- Offshore hydrocarbons (oil and gas) shape global geopolitics.
- Focus on securing and sustainably managing these resources as extraction technologies evolve.

• Government Involvement:

- Defence Minister Rajnath Singh expected to address the conference.
- Highlights the government's commitment to enhancing maritime security and resource management in the region.

• Future Impact:

- Discussions may shape future policies on resource management and security in the Indo-Pacific.
- Ideas shared could guide international cooperation and strategies addressing regional and global geopolitical trends.

About IPRD:

- Initiated by India in 2018 to promote maritime security, economic cooperation, and regional stability.
- Involves policymakers, defense experts and scholars.
- Addresses emerging challenges like piracy, climate change, and technological advancements.
- Supports India's Act East policy, fostering ties with Japan, Australia, and the United States, enhancing multilateral engagement in the Indo-Pacific.

WETEX 2024

26th Water, Energy, Technology, and Environment Exhibition (WETEX) 2024 held in Dubai World Trade Centre. It was organized by the Dubai Electricity and Water Authority (DEWA).

Global Participation:

• Features over 1,500 exhibitors from around 50 countries.

- Includes 16 international pavilions from 14 countries.
- Expected to attract over 20,000 visitors.



• Focus Areas:

- Showcases developments in renewable energy, water treatment, and environmental technologies.
- Promotes sustainable technologies related to water, energy, and the environment.

• Indian Participation:

- 29 Indian companies are participating, showcasing technologies and projects aimed at promoting a green economy.
- Emphasis on achieving Sustainable Development Goals (SDGs) related to clean energy, water conservation, and environmental protection.

• UAE-India Economic Relationship:

- Reflects growing economic ties between India and the UAE post-CEPA (Comprehensive Economic Partnership Agreement) in May 2022.
- Trade between the two countries reached \$84.5 billion from April 2022 to March 2023, with predictions to rise to \$100 billion by 2027.

• Investment Landscape:

- UAE is the seventh-largest foreign investor in India, having invested \$18 billion in various sectors in 2023.
- Strengthens economic ties and collaboration between the two nations.

• Significance of WETEX:

- Serves as a collaborative platform for countries and companies to address environmental challenges.
- Features conferences where experts discuss pressing environmental issues.
- Integral to the UAE's strategy for promoting sustainability and conserving water.



11

Science and Technology

BHARATGEN, A GENERATIVE AI INITIATIVE



- The BharatGen initiative, launched by the Ministry of Science and Technology on September 30, 2024, is a groundbreaking generative AI project aimed at enhancing public service delivery in India.
- This initiative is notable for being the world's first government-funded multimodal large language model (LLM) project, specifically designed to cater to India's diverse linguistic and cultural landscape.

Key Features of BharatGen

- Multilingual and Multimodal Models: BharatGen will develop foundational models that support various Indian languages and formats, integrating text, speech, and imagery.
- Bhartiya Dataset: The initiative emphasizes the creation of AI systems trained on India-centric datasets, ensuring that the models reflect the country's unique socio-cultural context.
- Open-Source Platform: BharatGen aims to foster an open-source ecosystem for generative AI research, promoting collaboration across academic and industrial sectors.
- Focus on Data Sovereignty: By prioritizing the collection of data that accurately represents India's linguistic diversity, BharatGen strengthens the nation's control over its digital resources.

Objectives and Impact

BharatGen is designed to address several critical objectives:

• **Enhancing Accessibility:** The initiative seeks to make generative AI accessible to all citizens, thereby promoting social equity and cultural preservation.

- Supporting National Priorities: It aligns with India's broader goals of technological self-reliance under the Atma Nirbhar Bharat vision, reducing dependence on foreign technologies.
- Encouraging Research and Development: The project will create a vibrant AI research community through training programs, hackathons, and collaborations with global experts.
- The BharatGen initiative is expected to unfold over a two-year period, with a roadmap extending until July 2026.
- Key milestones include extensive development of AI models tailored for Indian needs and scaling AI adoption across various sectors such as agriculture, education, and healthcare14.
- BharatGen represents a significant step towards establishing a robust domestic AI ecosystem in India, aimed at leveraging generative AI technologies for public good while ensuring inclusivity and cultural relevance.

WHO CONFIRMS INDIA'S ELIMINATION OF TRACHOMA



The World Health Organization (WHO) has officially recognized India for eliminating trachoma as a public health issue, marking a significant milestone in the global fight against preventable blindness.

• This achievement **positions India alongside Nepal** and Myanmar in the WHO South-East Asia region, and it is one of 20 countries worldwide to have reached this goal.

About Trachoma

- Trachoma is a contagious bacterial infection caused by *Chlamydia trachomatis*, which primarily affects the eyes and can lead to irreversible blindness if left untreated.
- The disease spreads through direct contact with infected eye or nasal secretions, often facilitated by poor sanitation and inadequate access to clean water.
- Symptoms: Itching, irritation, and discharge from the eyes, which can progress to scarring of the eyelids and inward turning of the eyelashes, a condition known as trichiasis.

India's Journey to Elimination

- India's efforts to combat trachoma date back to 1963, when the Ministry of Health and Family Welfare launched a control project supported by WHO and UNICEF.
- The strategy implemented was based on the WHOrecommended SAFE approach, which includes:
 - Surgery for those with trichiasis
 - Antibiotics to treat infections
 - Facial cleanliness promotion
 - Environmental improvements to reduce transmission

SPACE BASED SURVEILLANCE (SBS) MISSION



- The Cabinet Committee on Security (CCS) has approved Phase III of India's Space-Based Surveillance (SBS-III) initiative.
- The Space Based Surveillance 3 mission will be strengthened by India's purchase of 31 Predator drones from the US, collaboration with France on military satellites, and anti-satellite missile capabilities.
- This initiative will involve the launch of 52 satellites into low Earth orbit (LEO) and geostationary orbit (GEO), with a total estimated cost of approximately ₹26,968 crore.

- The new fleet of satellites will be based on artificial intelligence (AI) that can "interact with each other in space to gather geo-intelligence" on the Earth.
- The project will see the construction and launch of 21 satellites by ISRO and 31 by private companies, reflecting a growing collaboration between public and private sectors in India's space endeavors.
- The project involves **launching 52 spy satellites in low Earth and geostationary orbits.**

Purpose and Importance

- The projectaims to enhance **India's space surveillance** capabilities for national security.
- The National Security Council Secretariat and the Defence Space Agency under the Ministry of Defence are managing the SBS mission.
- Each branch of the armed forces (Army, Navy, Air Force) will have dedicated satellites for their specific operations.

Previous Phases of SBS

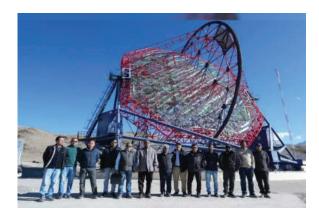
- **SBS 1 was launched in 2001** with four satellites, such as Cartosat 2A, Cartosat 2B, Eros B and Risat 2.
- It was initiated in 2001 under Vajpayee government.
- SBS 2 was introduced in 2013 with the launch of six satellites like Cartosat 2C, Cartosat 2D, Cartosat 3A, Cartosat 3B. Microsat 1 and Risat 2A.



MACE OBSERVATORY

The Major Atmospheric Cherenkov Experiment (MACE) Observatory was inaugurated on October 4, 2024, by Dr. Ajit Kumar Mohanty, Secretary of the Department of Atomic Energy (DAE) and Chairman of the Atomic Energy Commission, at Hanle, Ladakh.





- This observatory is notable for being the largest imaging Cherenkov telescope in Asia and the highest of its kind in the world.
- It is located at an altitude of approximately 4,300 meters at Hanle, Ladakh
- The MACE telescope has been indigenously developed by the Bhabha Atomic Research Centre (BARC) with support from the Electronics Corporation of India Limited (ECIL) and various other Indian industry partners.
- MACE is designed to observe high-energy gamma rays, contributing to global research efforts aimed at understanding some of the universe's most energetic phenomena, such as supernovae, black holes, and gamma-ray bursts. This facility will enhance India's capabilities in space and cosmic-ray research.

LUNAR POLAR EXPLORATION MISSION

The Lunar Polar Exploration Mission (Lupex) has been officially approved by India's National Space Commission, marking the country's fifth lunar mission. This initiative follows the successful Chandrayaan-3 mission, which made India the fourth nation to successfully land on the Moon in August 2023.

About LUPEX

- Collaboration: Lupex is a joint effort between the Indian Space Research Organisation (ISRO) and Japan's Japan Aerospace Exploration Agency (JAXA). This collaboration aims to explore the Moon's polar regions, focusing on the potential presence of water and other resources.
- The primary goals of Lupex include:
 - Investigating the distribution and quantity of water on the lunar surface and beneath the regolith (lunar soil).
 - Collecting data on how water interacts with the Moon's environment, which is crucial for future lunar exploration and potential human habitation.
- The mission is designed to operate for up to 100 days on the lunar surface, significantly longer than previous missions.

- JAXA will develop the rover, which will weigh approximately 350 kg, while ISRO will construct the lander.
- Scientific Instruments: The lander and rover will be equipped with advanced scientific instruments, including:
 - Ground-penetrating radar
 - Mid-infrared spectrometer
 - Raman spectrometer
 - A payload called PRATHIMA for lunar resource scouting
- It is **targeted for launch in 2025**, with preparations already underway to ensure its success.

CHINA'S JIANGMEN UNDERGROUND NEUTRINO OBSERVATORY



- China's Jiangmen Underground Neutrino Observatory (JUNO), located 700 meters underground in Kaiping, Guangdong province, is poised to begin data collection aimed at solving critical questions in particle physics, particularly related to neutrinos.
- This facility, which has been under construction since 2014 and cost approximately \$311 million, features a massive neutrino detector—a stainless steel and acrylic sphere about 35 meters in diameter surrounded by a 12-storey pool of water to shield it from radiation interference.

Features of JUNO

- JUNO is situated **700 meters underground in Kaiping, Guangdong province.** The observatory features a massive spherical detector made of stainless steel and acrylic, surrounded by a 12-storey pool of water.
- This design helps shield the detector from cosmic radiation, allowing it to detect neutrinos more effectively.
- The observatory houses a 20-kiloton liquid scintillator detector, which will utilize thousands of light-detecting tubes to capture the faint signals produced when neutrinos interact with matter.
- JUNO's research team includes scientists from the US, France, Germany, Italy, Russia, and Taiwan, demonstrating extensive international cooperation.



What are Neutrinos?

- Neutrinos are subatomic particles that are electrically neutral, have a very small mass, and exhibit left-handedness (their spin direction is opposite to their motion).
- They are the most abundant massive particles in the universe.
- Neutrinos are generated during nuclear reactions, such as:
 - Fusion in stars (like the sun)
 - Fission in reactors
 - Particle collisions in accelerators
 - Neutrinos interact with matter primarily through: Gravity and weak nuclear force
- **Neutrino Types:** There are three types of neutrinos:
 - Electron-neutrino
 - Muon-neutrino
 - Tau-neutrino
- Neutrino Oscillation: Neutrinos can switch between types as they travel, a phenomenon known as neutrino oscillation.
- Due to their low interaction rate with matter, neutrinos can carry information over vast distances. They hold potential for future communication technologies, possibly serving as an alternative to electromagnetic waves.

CHINA LAUNCHES 3 ASTRONAUTS TO TIANGONG SPACE STATION



- China has successfully launched a new crew to its Tiangong space station as part of its ongoing space exploration efforts.
- The Shenzhou-19 crewed spaceship was launched on October 30, 2024, from the Jiuquan Satellite Launch Centre using a Long March-2F rocket.
- Approximately 10 minutes post-launch, the spacecraft successfully entered its designated orbit.

- The crew consists of:
 - Cai Xuzhe (Commander)
 - Song Lingdong (Rookie astronaut)
 - Wang Haoze (First female space engineer in China and third Chinese woman in space)
- The astronauts will spend about six months aboard the Tiangong space station, conducting various experiments and activities.
- The mission involves performing 86 scientific experiments across multiple disciplines, including:
 - Space life sciences
 - Microgravity fundamental physics
 - Space material science
 - · Space medicine
- Extravehicular Activities: The crew will also engage in extravehicular activities (spacewalks) and install protective devices against space debris.
- **International Collaboration:** China is exploring opportunities to include astronauts from partner nations in future missions, highlighting a commitment to international cooperation in space exploration.
- This mission marks a significant step in China's ambitions for sustained human presence in low Earth orbit and further advancements in scientific research.

INDIA'S FIRST DEMONSTRATION FACILITY FOR BIOPOLYMERS IN PUNE



- India has inaugurated its first Demonstration Facility for Biopolymers in Jejuri, near Pune, marking a significant milestone in the country's biotechnology sector.
- The facility was inaugurated on October 13, 2024, by Union Minister Jitendra Singh, highlighting its role in advancing eco-friendly plastic alternatives.

Facility Overview

Spread over three acres, the facility is designed for the production of 100 tons per annum (TPA).



- It features advanced sections for **fermentation**, **chemical synthesis**, **separation**, and **purification**.
- Developed by Praj Industries, this facility showcases indigenously developed integrated PLA technology and represents a shift from fossil-based plastics to biodegradable alternatives, addressing the global plastic pollution crisis.
- Strategic Goals: The initiative aligns with India's objectives of "Atma Nirbhar Bharat" (self-reliant India), BioE3 Policy and "Make in India", positioning the country as a leader in sustainable solutions and bio-manufacturing.
- Industry Impact: Praj Industries aims to expand its focus from biofuels to renewable chemicals and materials through its Bio-Prism initiative, emphasizing bioplastics as a key area for growth.
- Future Vision: This facility is expected to play a crucial role in establishing India as a global hub for biomanufacturing while contributing to environmental sustainability and innovation in the bioplastics sector.

SHAKTHISAT MISSION



The **ShakthiSAT Mission** is an **ambitious initiative aimed at empowering young girls** globally through space exploration.

- The mission seeks to train 12,000 girls from 108 countries, providing them with knowledge in space technology, payload development, and spacecraft systems.
- Participants will undergo 120 hours of online training, designed for high school students aged 14-18. This training will culminate in the selection of 108 students, one from each country, who will travel to India for hands-on training in building spacecraft prototypes.
- Countries involved include the UK, UAE, Brazil, Kenya, Australia, France, Greece, Sri Lanka, and

- **Afghanistan**. The mission aims to foster international cooperation and inspire millions of young girls worldwide.
- After the training, the selected students will work on spacecraft prototypes between June and August 2025. The mission plans to launch a satellite as part of ISRO's Chandrayaan-4 mission in 2026.
- The mission is led by Srimathy Kesan, who emphasizes the importance of empowering young women and fostering unity through space exploration.
- Previous Initiatives: ShakthiSAT builds on earlier projects like AzaadiSAT, which successfully involved rural girls in satellite construction and launched a satellite in February 2023.

ESA LAUNCHED MOONLIGHT PROGRAMME

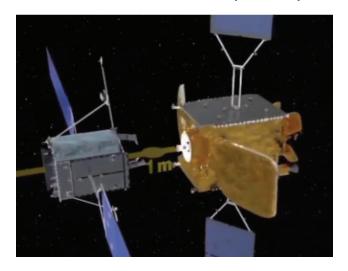


- The European Space Agency (ESA) recently launched its Moonlight Lunar Communications and Navigation Services (LCNS) program during the International Astronautical Congress on October 15, 2024.
- The Moonlight program aims to establish a satellite constellation around the Moon to provide essential communications and navigation services for over 400 planned lunar missions by various space agencies and private companies over the next two decades.
- The program will deploy a constellation of five satellites—four dedicated to navigation and one for communications. This infrastructure will enable precise autonomous landings and facilitate high-speed, low-latency data transfer between Earth and the Moon.
- The satellites will prioritize coverage of the Moon's south pole, an area of significant interest due to its favorable solar conditions and potential water ice deposits in permanently shadowed craters.
- The first satellite, named Lunar Pathfinder, is scheduled to launch in 2026, with initial services expected to begin by the end of 2028 and full operational capability by 2030.
- ESA is collaborating with NASA and JAXA (Japan Aerospace Exploration Agency) on the LunaNet



- **framework**, which aims to standardize lunar communication and navigation protocols. This collaboration ensures compatibility with future lunar infrastructures.
- The Moonlight program is seen as a crucial step in supporting ongoing lunar missions, enhancing commercial opportunities in the emerging lunar economy, and contributing to future deep space exploration efforts.

SPACE DOCKING EXPERIMENT (SPADEX)



Hyderabad-based Ananth Technologies has recently handed over two 400 kg class satellites to the **Indian Space Research Organisation (ISRO).**

- These satellites are part of the Space Docking Experiment planned for later this year.
- The satellites were handed over on **October 11**, **2024**.

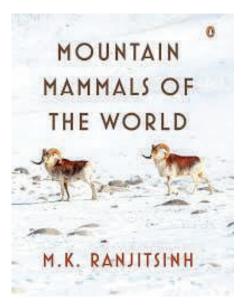
Mission Details

- The satellites will be launched as part of the PSLV-C60 mission, scheduled for December 2024.
- This mission is considered a crucial step towards future projects, including the Indian Space Station and the Chandrayaan-4 mission, which aims to return lunar rock and soil samples to Earth.
- **Integration Facility:** The satellites were integrated at Ananth Technologies' facility located in Bengaluru, specifically in the KIADB Aerospace Park.
- This project involved over 100 engineers and technicians, marking it as one of the most sophisticated satellite integration efforts undertaken by a private sector company in India.
- Ananth Technologies has been a key player in India's space sector, providing electronic subsystems for ISRO since 2000 and contributing to various Indian space missions.



Books and Author

A BOOK TITLED "MOUNTAIN MAMMALS OF THE WORLD" BY M.K. RANJITSINH



M.K. Ranjitsinh is a prominent conservationist in India, recognized for his significant impact on wildlife conservation policies. He is a member of the royal family of Wankaner, Gujarat.

Book Overview

- Title: "Mountain Mammals of the World".
- Publisher: Penguin Random House.
- Published on: October 21, 2024.

Content and Focus

- Comprehensive guide covering 62 species and 78 subspecies of large mammals.
- Focuses on mammals inhabiting rugged and inaccessible mountain ranges globally.

Features of the Book

- Combines detailed scientific insights with stunning photography.
- Includes personal anecdotes from Ranjitsinh's extensive field research and exploration.

Legacy and Impact

• The book reflects Ranjitsinh's lifelong dedication to protecting endangered species.

 Described by his daughter, Radhika Raje Gaekwad, as his magnum opus, highlighting its significance in the field of wildlife conservation.

A NEW BOOK "WAR" BY VETERAN INVESTIGATIVE JOURNALIST BOB WOODWARD



Bob Woodward is a veteran investigative journalist renowned for uncovering the Watergate scandal.

Book Title and Theme

- Title: "War".
- The book explores the dynamics of power among former U.S. President Donald Trump, current President Joe Biden, and Russian President Vladimir Putin.

Impact on Political Landscape

• "War" is already causing significant ripples in the political landscape with its revelations and insights.

Focus on Donald Trump

- This is Woodward's fourth book about Donald Trump since 2016, following "Fear", "Rage", and "Peril".
- The book aims to provide an in-depth behind-the-scenes look at Trump's political strategies and relationships.

Post-Presidency Insights

• "War" goes beyond Trump's presidency, revealing his actions and conversations after leaving office.

Revelations about Trump and Putin

- The book discloses private conversations between Trump and Putin that occurred post-presidency.
- Raises concerns regarding Trump's ongoing influence and relationships with foreign leaders.

Ongoing Relevance

 Woodward suggests that these discussions are part of Trump's efforts to remain relevant in international politics despite not being in office anymore.



Sports

INDIA TO HOST FIRST-EVER KHO KHO WORLD CUP IN 2025



- The Kho Kho Federation of India (KKFI) on Friday named the 24 nations that will participate in the inaugural Kho Kho World Cup, scheduled to take place from 13 to 19 January 2025, at New Delhi's IGI Stadium.
- This landmark tournament marks a significant step in the evolution of this indigenous Indian sport into a global phenomenon, with nations spanning six continents competing for the title of world champion.

DEEPIKA BAGS HER FIFTH SILVER AT ARCHERY WORLD CUP FINAL



- India's premier recurve archer Deepika Kumari won her fifth silver medal at the World Cup Final after losing the summit clash 0-6 to China's Li Jiaman in Mexico.
- Returning to the World Cup Final after three years following the birth of her daughter in December 2022, four-time Olympian Deepika was seeded third in the eight-archer field.
- She had a smooth run through the semifinals but probably the pressure of the gold medal match got

- to her against fourth-seed Li Jiaman, a team silver medalist from the Paris Olympics.
- It was Deepika's ninth appearance at the World Cup Final where she also bagged a bronze.

SRI LANKA SPINNER PRAVEEN JAYAWICKRAMA BANNED FOR BREACHING ICC ANTI-CORRUPTION CODE



- The International Cricket Council (ICC) banned Sri Lanka spinner Praveen Jayawickrama for one year from all forms of cricket for breaching its anti-corruption code.
- Praveen admitted to the breach, and six months of his ban have been suspended, according to a statement from the governing body.
- Praveen Jayawickrama was charged by the ICC Anti-Corruption Unit in August for failing to report details of an approach he received, in which he was asked to influence another player on behalf of a corrupter to engage in fixing during the 2021 Lanka Premier League.
- He was also charged with obstructing the investigation by deleting messages related to the approaches and offers of corrupt conduct.

INDIAN MEN'S TEAM WINS RAPID FIRE PISTOL GOLD

• In shooting, the trio of Mukesh Nelavalli, Raajwardan Patil, and Harsimar Singh Rattha secured victory in the men's 25-meter rapid-fire pistol team competition at the ISSF Junior World Championship in Peru.



- This win also marks the 11th gold medal for India in the championship.
- India remained at the top of the medal tally with a total of 16 medals, which included one silver and four bronze.
- China is in second place with three golds and one silver.

MUMBAI WON THE IRANI CUP FOR THE 15TH TIME AFTER 27 YEARS





- Mumbai won their 15th Irani Cup title, beating the Rest of India on the basis of a first-innings lead.
- Ajinkya Rahane's Mumbai brought an end to a 27-year wait as they reclaimed the prestigious Irani Cup title, defeating the Rest of India (RoI) at the Ekana Stadium in Lucknow.
- The win, secured on a first-innings lead, marked Mumbai's 15th Irani Cup triumph, the most by any Ranji Trophy team.
- This victory holds special significance as the side had not won the title since the 1997-98 season, despite making eight final appearances in the intervening years.

About Irani Cup

- The Irani Cup was first introduced in 1960 to celebrate the 25th anniversary of the Ranji Trophy.
- The Irani Cup is a first-class cricket tournament in India that's played annually between the Ranji Trophy champions and a Rest of India (RoI) team.

NITISH KUMAR UNVEILED LOGO, MASCOT FOR WOMEN'S ASIAN CHAMPIONS TROPHY-2024



- Bihar Chief Minister Nitish Kumar unveiled the logo and mascot for the Women's Asian Champions Trophy-2024, which will be held in Rajgir from November 11-20
- The mascot, named 'Gudiya', is inspired by the state bird of Bihar, Sparrow.
- The Women's Asian Champions Trophy-2024 is a joint venture of Hockey India and the Bihar government and will be held at the newly developed Rajgir Hockey Stadium.

ASIAN TABLE TENNIS CHAMPIONSHIPS 2024

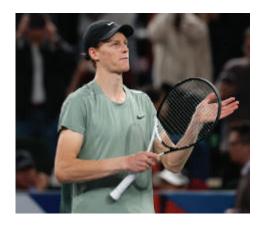


- India's top-ranked women's doubles pair of Ayhika Mukherjee and Sutirtha Mukherjee made history, securing a historic bronze medal, the country's firstever medal in the category, at the Asian Table Tennis Championships in Astana, Kazakhstan.
- Ayhika and Sutirtha have become the first-ever all-India women's doubles pair from India to win a medal at the competition.

JANNIK SINNER WINS SHANGHAI MASTERS TO EXTEND DJOKOVIC'S WAIT FOR 100TH TITLE

 World number one Jannik Sinner defeated 24-time Grand Slam champion Novak Djokovic 7-6 (7/4), 6-3 to win the Shanghai Masters in China.





- Sinner took a crucial break in the fourth game of the second set to defeat the Serbian in one hour, 37 minutes on Sunday, denying Djokovic a 100th career singles title.
- Sinner broke the contest open in the fourth game of the second set, breaking Djokovic's serve with a superb forehand down the line to go ahead 3-1.

RIFLE SHOOTER AKHIL SHEORAN REDEEMS HIMSELF WITH BRONZE IN WORLD CUP FINAL



- In a year marred by disappointments, shooter Akhil Sheoran redeemed himself by winning the men's 50m rifle 3-positions bronze medal even as the other Indian participants failed to make a mark in the ISSF World Cup Final.
- Akhil remained calm to win India's second medal in the year-ending tournament with a score of 452.6.
- He beat back the challenge from China's Liu Yukun, the Paris Olympics gold medallist, who finished fourth.
- India had won a silver medal through Sonam Maskar in women's 10m air rifle.

SHOOTING WORLD CUP: VIVAAN WINS SILVER WHILE NARUKA CLAIMS BRONZE MEDAL

 Vivaan Kapoor claimed silver in men's trap event after compatriot Anant Jeet Singh Naruka's bronze in the men's skeet competition, taking India's tally to four medals at the ISSF World Cup Final.



- Vivaan shot 44 in the final to finish behind gold medal winner Ying Qi of China.
- Turkey's Tolga N Tuncer won the bronze medal with a score of 35.
- Vivaan had come up with a score of 120 out of 125 in the qualification round to enter the six-man finals.
- Earlier, Naruka, the 26-year-old from Rajasthan, shot 43 in the six-man final, earning third place, while Italy's Tammaro Cassandro and Gabriele Rossetti took home the gold and silver with scores of 57 and 56, respectively.

JSW SPORTS ROPES IN SOURAV GANGULY AS DIRECTOR OF CRICKET



- Cricketing icon and former India captain Sourav Ganguly has been appointed as the Director of Cricket for JSW Sports.
- In this new role, Ganguly will oversee all cricketing operations for JSW Sports, including the Delhi Capitals men's IPL and women's WPL teams, as well as the Pretoria Capitals team in South Africa's SA20 League.
- He later took on the role of Director of Cricket for the franchise.

ARJUN ERIGAISI BEATS LAGRAVE TO WIN WR CHESS MASTERS CUP BUT MISSES OUT ON 2800

 GM Arjun Erigaisi beat France's Maxime Vachier-Lagrave in Armageddon to clinch the 2024 WR Chess



Masters Cup, picking up the €20,000 top prize and 27.84 FIDE Circuit points.



- However, despite the win, Erigaisi could not cross the 2800 mark after his French opponent forced two consecutive two draws in the classical games.
- Erigaisi knew he had to win in classical chess on the final day to cross 2800 for the first time in his career.
- Erigaisi, who is world no. 4 with a live rating of 2796.1, beat compatriot Vidit Gujrathi and R. Praggnanandhaa on the way to winning the title.

NEW ZEALAND'S HISTORIC WOMEN'S T20 WORLD CUP WIN



- New Zealand captain Sophie Devine, in her final assignment as captain of the women's team, led her team to a maiden T20 World Cup victory as the Kiwis triumphed over South Africa in Dubai to lift the trophy.
- It turned out to be a historic Sunday for New Zealand cricket as the White Ferns got their hands on the ICC trophy hours after the men recorded their first Test win in India after 36 years.

BALA DEVI BECAME FIRST INDIAN WOMAN TO SCORE HER 50 INTERNATIONAL GOAL

 Bala Devi, often referred to as the "goal machine" of Indian women's football, etched her name in the history books by becoming the first Indian woman to score her 50th international goal during the 2024 SAFF Women's Championship in Nepal, in a match against Pakistan.



 The 34-year-old forward netted the ball in the 35th minute of the match.

GOA HOSTED 24TH NATIONAL PARA-SWIMMING CHAMPIONSHIP



- The 24th National Para-Swimming Championship was held in Panjim, Goa from October 19–22, 2024.
- The event was organized by the Paralympic Committee of India (PCI), the Office of the Commissioner for Persons with Disabilities, and the Goa Paralympic Association.
- The championship featured over 700 participants from more than 27 states and union territories in India.
- The 24th National Para-Swimming Championship concluded with Karnataka emerging as the overall champion.

ZIMBABWE HITS 344 TO SET WORLD RECORD T20 SCORE IN WIN OVER GAMBIA

- Zimbabwe Cricket Team put Gambia under the sword by thumping the team for 344/4, which is the new world record in T20Is.
- Zimbabwe's world-record setting score came in an ICC Men's T20 World Cup Sub-Regional Africa Qualifier Group B match.





- Zimbabwe then wrapped up the Gambia team in 54 runs, thereby winning the match by a margin of 290.
- Sikandar Raza was the Player of the Match for his unbeaten score of 133 from 43 balls. He was ably supported by Tadiwanashe Marumani (62 runs off 19 balls) and Clive Madande (53* off 17 deliveries).

UNDER-23 WORLD WRESTLING CHAMPIONSHIPS: CHIRAG CHIKKARA CLINCHES GOLD AS INDIA SHINES WITH NINE MEDALS

• Chirag Chikkara became only the third Indian to become Under-23 world champion as India capped a rich haul

of nine medals, including a gold and silver each, at the age group tournament.



- Chikkara, competing in the men's freestyle 57kg category, eked out a narrow 4-3 in the closing seconds of the final win over Abdymalik Karachov of Kyrgyzstan.
- He becomes the second Indian man, after Paris Olympics bronze medallist Aman Sehrawat, to win the gold at the U23 Championships.



14

Person in News

MITHUN CHAKRABORTY HONORED WITH DADASAHEB PHALKE AWARD

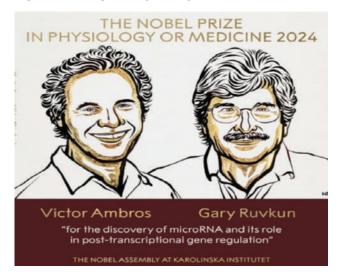


- Mithun Chakraborty received the Dadasaheb Phalke Award, India's highest film honour, at a ceremony in New Delhi's Vigyan Bhawan.
- The 70th National Awards were presented by President Droupadi Murmu.
- The Dadasaheb Phalke Award is the country's highest film honour and is given by the government.
- Earlier this year, Mithun Chakraborty was announced as the recipient of the Padma Bhushan, India's thirdhighest civilian honour.

Ceremonial year	Recipient	Film industry
2024 (74th)	Mithun Chakraborty	Hindi
2023 (73rd)	Rekha	Hindi
2022 (72nd)	Asha Parekh	Hindi
2021 (71st)	Rajnikanth	Tamil
2020 (70th)	Asha Parekh	Hindi
2019 (67th)	Rajnikanth	Tamil
2018 (66th)	Amitabh Bachchan	Hindi

NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 2024

 The Nobel Prize in Physiology or Medicine for 2024 has been awarded to Victor Ambros and Gary **Ruvkun** for the discovery of microRNA and its role in post-transcriptional gene regulation.

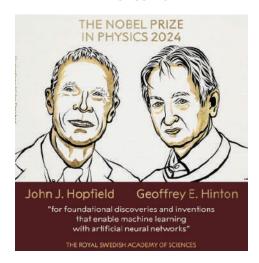


- The information in our chromosomes acts like an instruction manual for all our cells.
- While every cell contains the same genes, different cell types, like muscle and nerve cells, have unique characteristics.
- This happens through gene regulation, where each cell activates only the genes it needs.
- The 2023 Nobel Prize in Physiology or Medicine was awarded to Katalin Kariko, and Drew Weissman for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against Covid-19.

About Nobel Prize

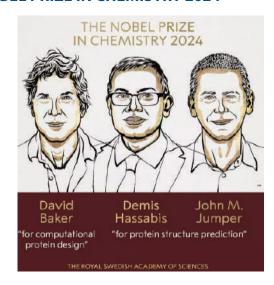
- The Nobel Prizes are five separate prizes awarded to those who, during the preceding year, have conferred the greatest benefit to humankind, as established by the 1895 will of Swedish chemist, engineer, and industrialist Alfred Nobel, in the year before he died.
- Prizes were first awarded in 1901 by the Nobel Foundation.
- Nobel's will indicated that the awards should be granted in the fields of Physics, Chemistry, Physiology or Medicine, Literature, and Peace.

NOBEL PRIZE IN PHYSICS 2024



- The Royal Swedish Academy of Sciences awarded the 2024 Nobel Prize in Physics to John J. Hopfield and Geoffrey E. Hinton for their foundational contributions to machine learning through artificial neural networks.
- The two Nobel Laureates used tools from physics to develop methods that are the foundation of today's powerful machine learning.
- John Hopfeld created an associative memory that can store and reconstruct images and other types of patterns in data.
- Geoffrey Hinton invented a method that can autonomously find properties in data, and perform tasks such as identifying specific elements in pictures.

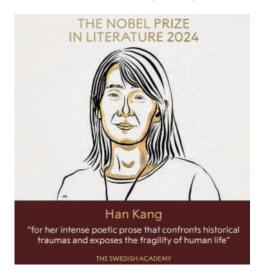
NOBEL PRIZE IN CHEMISTRY 2024



- The 2024 Nobel Prize for Chemistry has been awarded to David Baker, Demis Hassabis, and John Jumper on October 9, 2024, in Stockholm, Sweden.
- The Nobel Prize in Chemistry 2024 is about proteins, life's ingenious chemical tools.

- David Baker has succeeded with the almost impossible feat of building entirely new kinds of proteins.
- Demis Hassabis and John Jumper have developed an AI model to solve a 50-year-old problem: predicting proteins' complex structures.
- This program has successfully created proteins that can serve as pharmaceuticals, vaccines, and sensors.
- Their work has revolutionized how scientists approach protein engineering, enabling the design of proteins tailored to combat diseases like COVID-19 and cancer.

NOBEL PRIZE IN LITERATURE 2024



- Han Kang, the first South Korean Nobel Prize winner for Literature, hopes to maintain normal life despite historic honour.
- The short story writer and novelist is best known overseas for her Man Booker Prize-winning "The Vegetarian", her first novel translated into English.
- Han, 53, is the first South Korean writer and 18th woman to win the Nobel Literature Prize.

NOBEL PEACE PRIZE 2024

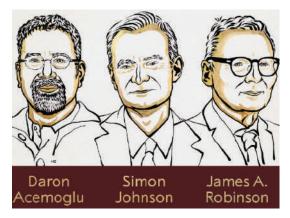


 Japanese atomic bomb survivor movement Nihon Hidankyo won the Nobel Peace Prize in recognition of the organization's efforts to achieve a world free of nuclear weapons.



- The awards committee said that the grassroots movement had "worked tirelessly" to raise awareness about the catastrophic humanitarian consequences of using nuclear weapons.
- A presentation of the Nobel Prizes will take place in Oslo, Norway on Dec. 10, a date which marks the anniversary of the death of Swedish inventor and philanthropist Alfred Nobel.
- Iranian human rights activist Narges Mohammadi received the Nobel Peace Prize in 2023 for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all.

NOBEL PRIZE IN ECONOMICS 2024



- The Royal Swedish Academy of Sciences on October 14 awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2024 to three US-based economists — Daron Acemoglu, Simon Johnson, and James A Robinson — "for studies of how institutions are formed and affect prosperity".
- The Nobel citation states the three economists "have helped us understand differences in prosperity between nations".
- The economics award is not one of the original prizes for science, literature and peace created in the will of dynamite inventor and businessman Alfred Nobel and first awarded in 1901.
- It is a later addition established and funded by Sweden's central bank in 1968.

ISRO CHAIRMAN S. SOMANATH RECEIVED IAF WORLD SPACE AWARD FOR CHANDRAYAAN-3

• In a momentous recognition of India's achievements in space exploration, Dr. S. Somanath, Secretary of the Department of Space and Chairman of the Indian Space Research Organisation (ISRO), has been awarded the prestigious International Astronautical Federation (IAF) World Space Award for the remarkable success of the Chandrayaan-3 mission.



- The award ceremony, held in Milan, Italy, celebrates India's significant contributions to lunar exploration and its growing prominence in the global space community.
- The IAF World Space Award recognises outstanding contributions to space science, technology, and exploration.
- This honour for Chandrayaan-3 shows the mission's significance in advancing our understanding of the Moon and paving the way for future lunar exploration endeavours.
- The success of Chandrayaan-3 has inspired a new generation of scientists and engineers in India, boosting interest in space exploration and STEM fields across the country.

HON'BLE PRESIDENT OF INDIA CONFERRED 5TH NATIONAL WATER AWARDS, 2023

- Hon'ble President of India, Smt Droupadi Murmu, conferred the 5th National Water Awards, 2023 at Vigyan Bhawan in New Delhi.
- 38 winners, including joint winners across 09 categories were awarded for their exemplary work in the field of water conservation and management.
- Each award winner was conferred with a citation and a trophy as well as cash prizes in certain categories.
- Odisha state, the first winner in the state category, has made exemplary strides in water conservation by creating about 53,000 water conservation & rain water harvesting structures, 10,800 reuse & recharge structures, 68,700 watershed development and 21,000 wastewater treatment plants as well as renovating 11,000 traditional water bodies.
- Uttar Pradesh, the second winner in the state category, under Jal Jeevan Mission over 1.91 crore households constituting 72.78% of the total rural houses in UP have been provided with tap water.
- Winners in best District category, BANDA (UTTAR PRADESH) from North Zone (joint winner)- around 400 ponds rejuvenated, 3,300 farm bunds & 530 farm ponds, 250 rooftop rainwater harvesting structure, 4,690 soak pits, and 460 check dams constructed.



 GANDERBAL (J&K) from north zone (joint winner)
 maintenance works of about 400 km of canals, and lining of 1.35 km of canals to prevent water wastage completed.

NIKITA PORWAL CROWNED FEMINA MISS INDIA 2024



- Nikita Porwal from Madhya Pradesh has been crowned as the winner of Femina Miss India 2024 this year.
- Rekha Pandayy, representing Union Territories, stood second.
- Nikita is an actor who has been working since 18-yearsold.
- She began her career as a TV anchor.
- She was crowned by last year's winner Nandini Gupta.

ACTOR DARASING KHURANA WON MAHATMA GANDHI LEADERSHIP AWARD IN UK



- Actor Darasing Khurana has received the Mahatma Gandhi Leadership Award for his work towards raising awareness around mental health issues as the 'Commonwealth Year of Youth Champion'.
- Khurana, 32, the Indian actor and philanthropist, also served as the keynote speaker at the Global Mental

Health Summit 2024 at the Oxford University's historic Oxford Union before heading over to Samoa for the Commonwealth Heads of Government Meeting (CHOGM).

NEPAL'S URMILA CHAUDHARY WINS GLOBAL ANTI-RACISM CHAMPIONSHIP AWARD 2024



- Urmila Chaudhary of Nepal won the Global Anti-Racism Championship Award 2024 which was presented by Secretary of State Antony J. Blinken.
- This award honours six civil society leaders for their exceptional courage, leadership, and commitment to advancing racial equity, justice, and human rights.
- Urmila Chaudhary is an abolitionist and labour activist who was rescued from child servitude at age 17.
- She co-founded the Freed Kamlari Development Forum and established 42 cooperatives to empower former bonded labourers.
- She is currently studying law to further her fight against injustice. Urmila Chaudhary is honoured for her dedication to advancing the rights of marginalized castes and ethnic communities in Nepal and for combating systemic racism and intersectional abuses.

IUCN AWARD CONFERRED ON CONSERVATION SCIENTIST BIBHAB TALUKDAR





- A passionate conservation scientist of global repute from Assam Bibhab Kumar Talukdar has been conferred 'The Harry Messel Award' for Conservation Leadership by the Species Survival Commission (SSC) of the International Union for Conservation of Nature (IUCN).
- The award was presented to him at the 5th IUCN SSC Leaders' Meeting that is underway in Abu Dhabi.
- The award has been presented for Talukdar's contribution to species Conservation on the ground and through leadership, as part of the work of the Species Survival Commission.

FRANCIS FORD COPPOLA TO RECEIVE AFI LIFE ACHIEVEMENT AWARD IN 2025



- Francis Ford Coppola, the visionary director behind numerous cinematic classics, is set to receive the prestigious AFI Life Achievement Award at a ceremony on April 26, 2025, at Hollywood's Dolby Theatre.
- This honor marks the 50th installment of the award, recognizing outstanding contributions to the film industry.
- The AFI Life Achievement Award tradition began in 1973 with John Ford.

SRI SRI RAVI SHANKAR HONORED WITH FIJI'S HIGHEST CIVILIAN AWARD



- The South Pacific island nation of Fiji has conferred its highest civilian honour upon Gurudev Sri Sri Ravi Shankar, the global spiritual master and humanitarian leader, for his tireless contribution to the upliftment of the human spirit and connecting diverse communities in peace and harmony.
- Gurudev was given the title of 'Honourary Officer Of The Order of Fiji' by the President of the Republic of Fiji, Ratu Wiliame M. Katonivere.
- Fiji has become the sixth country to confer the highest civilian award upon Sri Sri Ravi Shankar, recognising the vast scope of his humanitarian work globally through his 'The Art of Living Foundation'.

SPAIN'S RODRI AND BONMATÍ WIN BALLON D'OR AWARD FOR BEST MEN'S AND WOMEN'S PLAYERS IN WORLD SOCCER



- Spanish midfielders Rodri and Aitana Bonmatí won the men's and women's Ballon d'Or award for the world's best soccer player on Monday.
- The 28-year-old Rodri won the prestigious award for the first time after helping Manchester City win the Premier League and being a key player in Spain's European Championship triumph.

SHREYAMS KUMAR IS NEW INDIAN NEWSPAPER SOCIETY PRESIDENT





- M V Shreyams Kumar, managing director of the Mathrubhumi Printing & Publishing Company, was on Friday elected president of the Indian Newspaper Society (INS), an apex body of publishers of newspapers, magazines, and periodicals.
- Kumar succeeds Rakesh Sharma of Aaj Samaj newspaper.
- During the 85th annual general meeting of the INS, which was held through video-conferencing, Vivek Gupta of Sanmarg was elected deputy president, and Lokmat's Karan Rajendra Darda became vice president.

AIR MARSHAL SP DHARKAR APPOINTED AS THE NEXT IAF VICE CHIEF



- Air Marshal SP Dharkar, a distinguished fighter pilot, has been appointed as the next Vice Chief of Air Staff.
- He will succeed Air Marshal AP Singh, who is set to become the Chief of Air Staff. Dharkar will assume his new role once the Chief takes over.
- With more than 3,600 flying hours, Air Marshal Dharkar brings extensive experience to the position.
- Commissioned in June 1985, he has earned credentials as a Qualified Flying Instructor, Fighter Strike Leader, Instrument Rating Instructor and Examiner, and Air Force Examiner.

DIA MIRZA APPOINTED AS JURY FOR ALT ENVIRONMENTAL FILM FESTIVAL 2024



- Actor Dia Mirza is appointed as a part of the jury at the All Living Things Environmental Film Festival (ALT EFF), which will take place from November 22 to December 8.
- A total of 72 films will be showcased at the festival with 38 making their India premieres.
- The diverse selection of films at the festival highlight critical environmental issues, ranging from climate change to wildlife conservation.

PARAMESH SIVAMANI TAKES OVER AS COAST GUARD CHIEF



- The Indian Coast Guard has welcomed S Paramesh as its new chief, following his appointment to the post by the central government.
- Paramesh, who has been serving as the acting Director General since the passing of his predecessor, Rakesh Pal, will officially assume his duties on October 15.
- Paramesh has been recognised for his service, receiving accolades such as the President's Tatrakshak Medal and the Tatrakshak Medal, in addition to various commendations.

VIJAYA KISHORE RAHATKAR APPOINTED NEW NCW CHAIRPERSON



- Smt. Vijaya Kishore Rahatkar has been appointed as the Chairperson of the National Commission for Women (NCW).
- She will be the 9th Chairperson of NCW.



- Smt. Rahatkar has demonstrated leadership skills across various political and social responsibilities.
- During her tenure as Chairperson of the Maharashtra State Commission for Women (2016-2021), she spearheaded initiatives like "Sakshama" (support for acid attack survivors), "Prajwala" (linking self-help groups to central government schemes), and "Suhita" (24x7 helpline service for women).

JUSTICE SANJIV KHANNA TO TAKE OATH AS CHIEF JUSTICE OF INDIA



- The central government has officially notified the appointment of Justice Sanjeev Khanna as the next Chief Justice of India, set to take effect on November 11.
- This appointment comes in the wake of the retirement of the current Chief Justice, DY Chandrachud, on November 10.
- Justice Khanna will become the 51st Chief Justice of India.
- The Ministry of Law and Justice issued a notification confirming that, under clause (2) of Article 124 of the Constitution, the President has appointed Justice Sanjeev Khanna, currently serving as a Supreme Court judge, as the new Chief Justice.

VETERAN MALAYALAM ACTOR MOHAN RAJ DIES AT 70



- Veteran Malayalam actor Mohan Raj, widely known by his stage name Keerikkadan Jose, died at his residence in Kanjiramkulam.
- He was 70. The actor died while undergoing treatment for various ailments at his home in Kanjiramkulam.
- Chief Minister Pinarayi Vijayan and State Cultural Affairs Minister Saji Cheriyan offered condolences on Mohan Raj's death.
- Mohan Raj, who played notable villain characters in Malayalam cinema, is best known as Keerikkadan Jose in the movie Kiridam.

RATAN TATA, TATA SONS CHAIRMAN EMERITUS, DIES AT 86



- Ratan Tata, the Chairman Emeritus of Tata Sons, has passed away at the age of 86 after a prolonged illness.
- Ratan Tata, who became chairman in 1991, transformed the Tata Group into a global powerhouse.
- His leadership saw iconic milestones such as the development of the Tata Nano and the acquisition of Jaguar Land Rover.
- Tata's legacy of innovation, integrity, and social impact will continue to influence generations.

AKASHVANI DARBHANGA FORMER RADIO PRESENTER INDRANAND SINGH JHA PASSES AWAY





- Indranand Singh Jha, the famous former radio presenter and compere of Akashvani Darbhanga passed away this morning at his ancestral village Chanaur in Darbhanga.
- He was 77 years old.
- Well-known for his rural radio talk programme Gamghar from Akashvani Darbhanga station with the pen name of Khur Khur Bhai, he was very popular among radio listeners during his service.
- People associated with social and cultural organizations expressed grief over the death of former Akashvani staff.

MARATHI ACTOR ATUL PARCHURE PASSES AWAY AT 57



- Veteran actor Atul Parchure has died at the age of 57.
- His death has sent shockwaves through the film fraternity, leading to an outpouring of tributes on social media.
- He was a well-known Marathi actor who appeared in numerous Hindi television shows and films, including a memorable stint on Kapil Sharma's comedy show.

SANSKRIT SCHOLAR VASANT ANANT GADGIL PASSES AWAY AT 94 IN PUNE



 Sanskrit scholar and the founder of Sharda Gyan Peetham, Vasant Anant Gadgil, passed away on Friday morning in Pune. He was 94.

- In 2010, the first Sanskrit biography of Dr Bhimrao Ambedkar called Bhimayanam was written by Prabhakar Joshi under Gadgil's 'Sharada Gaurav Granthamala' series.
- In 2012, Gadgil was also felicitated by then Gujarat chief minister and current Prime Minister Narendra Modi.
- He was also awarded the Mahakavi Kalidas Sanskrit-Vrati National Award for the propagation, research, and development of Sanskrit by the Kavikulaguru Kalidas Sanskrit University.

RENOWNED PHYSICIST, GENDER EQUITY PROPONENT ROHINI GODBOLE DIES AT 71



- Professor Rohini Godbole, a well-known physicist and Padma Shri recipient, passed away in Bengaluru at the age of 72 after a short illness.
- She was among the prominent voices advocating equal opportunities for women in the field of science.
- She researched elementary particle physics field theory and phenomenology.
- She was among the members who submitted the report titled 'INSA Report: Access of Indian Women to Careers in Science', a first-of-its-kind document that dealt with issues that Indian women faced while pursuing science in college and later as a career.

JUSTICE KS PUTTASWAMY, PETITIONER IN RIGHT TO PRIVACY CASE, PASSES AWAY AT 98

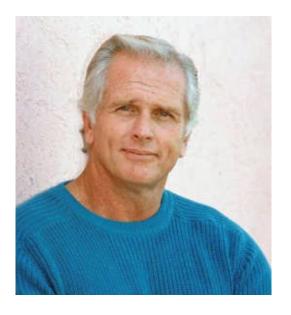




- Over seven years after the Supreme Court, in a landmark ruling, declared privacy to be a fundamental right, Justice KS Puttaswamy, a key petitioner in the 'right to privacy' matter and a former judge at the Karnataka high court, passed away at the age of 98.
- Justice Puttaswamy, who was born in February 1926 in Karnataka's Kolar, enrolled as an advocate in 1952 and became a judge in the state's high court in 1977.
- He served there till his retirement in 1986, following which he was appointed as the first vice chairperson of the Central Administrative Tribunal, Bengaluru.

TARZAN STAR RON ELY DIES AGED 86

- Ron Ely, a veteran television actor best known for his role as an educated, urbane vine-swinger on the 1960s show "Tarzan", died.
- He was 86.





Places in News



Limpiyadhura Kalapani, Lipulekh and Limpiyadhura CHINA (disputed) Kalapani Lipulekh Pass INDIA Uttarakhand NEPAL Google Sudurpashchim 10km Pradesh 5 miles BBC

ALBANIA (CAPITAL: TIRANA)

• India opened a new mission in Albania to boost its diplomatic footprint.

Political Features:

- **Location:** Southern Europe (western part of the Balkan Peninsula).
- Balkan Peninsula is located between the Adriatic Sea, Mediterranean Sea, Aegean and Black sea.
- **Bordering Areas:** Montenegro (Northwest), Kosovo (Northeast), North Macedonia (East), Greece (Southeast and south).
- Maritime Boundaries: Adriatic Sea (West) and Ionian Sea (Southwest).

Geographical Features:

- **Mountains:** North Albanian Alps (extension of Dinaric Alps)
- Highest Point: Mount Korab
- **Strait:** Otranto (connecting Adriatic Sea with Ionian Sea).
- Rivers: Drin, Seman, etc.

LIPULEKH PASS

- The first batch of pilgrims viewed Mount Kailash (abode of Lord Shiva) from Old Lipulekh pass.
- Previously, pilgrims had to travel to Tibet Autonomous Region (TAR) to view the peak.

About Lipulekh Pass:

- **Location:** International Mountain pass, above Kalapani valley, forming a tri-junction between India, Nepal, and TAR (China).
- Situated in Vyas valley, Pithoragarh district, Uttarakhand inhabited by Bhutiya people.
- **Significance:** Ancient trade and pilgrimage route.
- Closed in 1962 by India fearing Chinese incursions and was reopened in 2020.



TELANGANA(CAPITAL: HYDERABAD)

Telangana set to establish Dry Ports to boost export.

About Dry Ports:

- Also known as an inland port, it is an inland terminal that is meant to provide connectivity to a seaport by rail or road.
- It includes Inland Container Depots (ICDs), Container Freight Stations (CFSs), and Air Freight Stations (AFSs), etc.
- Benefits: Provide a more efficient and cost-effective gateway
 to international trade for landlocked states/ regions, reduce
 pressure on coastal ports, easing congestion and improving
 efficiency, etc.



COLOMBIA (CAPITAL: BOGOTÉ)

 India has signed an Audio-visual Co-production Agreement with Colombia.

Political features:

- Land boundaries: Venezuela and Brazil (east); Panama (north); Peru and Ecuador (south).
- Maritime Boundaries: Caribbean Sea, Pacific Ocean
- Known as the Gateway of South America because it lies in the northwestern part of the continent where South America connects with Central and North America.
- Ioined OECD in 2020.



BLUE LINE

• The UN said that the Israeli military has fired on its peacekeepers near the Blue Line.

About Blue Line:

- Established by the United Nations Interim Force in Lebanon (UNIFIL) in 2000.
- It is an area spanning 120 km along southern Lebanon to ensure the complete withdrawal of Israeli forces.
- It acts as a de-facto border between Israel and Lebanon, mapped by the UN.
- It is made of blue barrels and runs from the Mediterranean to the Golan Heights.





ALGERIA (CAPITAL: ALGIERS)

• The President of India recently paid a visit to Algeria.

Political Features:

- The country of North Africa located in the Maghreb region.
- The Maghreb region comprises essentially the Atlas Mountains and the coastal plain of Morocco, Algeria, Tunisia, and Libya.
- Bounded by Tunisia and Libya (east); Niger, Mali, and Mauritania (south); Morocco and Western Sahara (west); and Mediterranean Sea (north).



SRI KARTARPUR SAHIB CORRIDOR

- India and Pakistan have renewed agreement on Sri Kartarpur Sahib Corridor for next five years.
- Agreement originally signed in 2019 was valid for 5 years.

About Sri Kartarpur Sahib corridor:

- It facilitates the visit of pilgrims from India to Gurdwara Darbar Sahib Kartarpur, Narowal in Pakistan without a visa.
- Guru Nanak, founder of Sikhism, spent the last 18 years of his life at Kartarpur (located at west bank of river Ravi).
- Corridor provides a 4.5-kilometer route from the Indian border at Dera Baba Nanak in Punjab to Kartarpur.



MORMUGAO PORT

- Mormugao Port Authority is recognized globally as an incentive provider on the Environmental Ship Index (ESI) platform.
- ESI has been published by the International Association of Ports and Harbors (IAPH) since 2011.
- It identifies ships that perform better in reducing air emissions than required by the current emission standards of the International Maritime Organization (IMO).

About Mormugao Port:

- It's a major port of India located in Goa,
- India's first port to introduce Green Ship Incentives (Harit Shrey scheme) through the ESI.
- **Harit Shrey scheme (2023):** Incentivises ships with favourable ESI scores; and "it aims towards decarbonization and green shipping".





BIHTA DRY PORT

- **Bihar's first dry port** also known as inland container depot (ICD) inaugurated in Bihta near Patna.
- Dry Ports provide a logistics facility away from a seaport or airport for cargo handling, storage, and transportation.

Significance of Bihta Dry Port:

- **Exports:** It will boost exports, mainly agro-based, garments and leather products from Bihar.
- Improved Logistics: It will streamline cargo handling and transportation, lowering transportation costs, and securing storage and handling.
- Benefits to adjoining states: Catering to entire eastern India.
- It is connected by rail to major gateway ports of Kolkata,
- Haldia, Visakhapatnam, Nhava Sheva, & major national and international trade routes.



ITALY (CAPITAL: ROME)

• First India-Italy bilateral cyber dialogue was held in India.

Political Features:

- **Location:** South-central Europe.
- Land boundaries: France, Switzerland Austria and Slovenia (on the Northern side).
- Maritime Boundaries: Mediterranean Sea and Ionian Sea(South), Adriatic Sea (East), Tyrrhenian Sea (West),

Geographical features:

- **Major Rivers:** Po,Adige,Tiber.
- Highest point: Monte Bianco (Mont Blanc).
- Climate: majorly Mediterranean climate.



MAURITANIA (CAPITAL: NOUAKCHOTT)

• The President of India visited Mauritania.

About Mauritania:

Political Features:

- Form of Government: Presidential.
- **Boundary:** It borders Western Sahara to the northwest, Algeria to the northeast, Mali to the east and southeast, and Senegal to the southwest, and Atlantic ocean in the west.
- It is a former French colony, It achieved independence in 1960.

Geographical features:

- **Location:** Lies on the Atlantic coast of Africa, Much of the country is part of the Sahara desert.
- **Drainage:** Senegal River and its tributaries.
- **Climate:** Dry, hot, and windy climate, and severely exposed to the effects of desertification.
- Northeastern trade winds and Harmattan winds affect its climate.





MALAWI (CAPITAL: LILONGWE)

• The President of India paid a visit to Malawi.

Political Features:

- **Location:** It is a landlocked country in southeastern Africa.
- **Neighbouring countries:** Mozambique (East and South), Zambia (West), and Tanzania (North).

Geographical Features:

- **Relief:** Occupies a narrow, curving strip of land along the East African Rift Valley.
- Major Lakes: Lake Malawi (or Lake Nyasa)
- Major Rivers: Rukuru, Dwangwa, Lilongwe, Bua, etc.
- **Highest Peak:** Sapitwa peak (in Mt. Mulanje)



ARMENIA (CAPITAL: YEREVAN)

As per reports, Armenia has emerged as India's one of leading defense export destinations.

Political Boundaries:

- **Location:** Landlocked country of Transcaucasia (populated region to the south of the Caucasus Mountains).
- **Border:** Azerbaijan, Turkey, Nakhchivan Autonomous Republic (an exclave of Azerbaijan), Georgia, and Iran.
- Nagorno-Karabakh is a disputed territory between Armenia and Azerbaijan.

Geographical features:

- **Highest Peak**: Mount Aragats (Alaghez)
- Rivers: Aras River



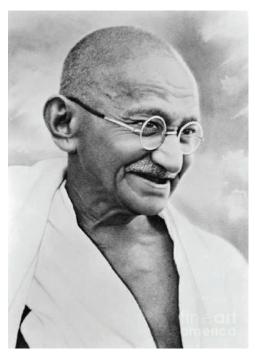
Important Days

LAL BAHADUR SHASTRI JAYANTI 2024



- Lal Bahadur Shastri Jayanti is celebrated on October 2nd each year, and in 2024 it marks the 120th birth anniversary of the third Prime Minister of India.
- Shastri was born in Mughalsarai, Uttar Pradesh on October 2, 1904.
- Role in Freedom Struggle: Highlights his active participation in key movements like the Non-Cooperation Movement and Quit India Movement.
- Leadership During Indo-Pak War: Discusses his famous slogan "Jai Jawan, Jai Kisan" and his efforts to protect India's sovereignty during the 1965 war.
- National Observance: Describes the significance of Lal Bahadur Shastri Jayanti, including official ceremonies and educational programs.
- **Contemporary Relevance**: Emphasizes his vision on economic self-reliance, agricultural focus, and ethical leadership, which remain relevant today.

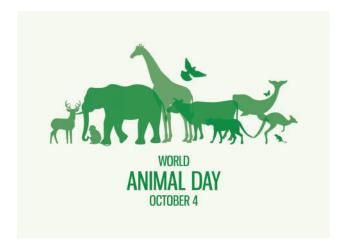
GANDHI JAYANTI 2024



- Gandhi Jayanti falls every year on 2nd October.
- The year 2024 marks the 155th birth anniversary of Mahatma Gandhi.
- **Historical Context:** Mahatma Gandhi, born October 2, 1869, in Porbandar, Gujarat, became a global icon through his principles of non-violence and truth.
- **South African Experience:** Gandhi developed Satyagraha in response to racial discrimination, shaping his philosophy of non-violent resistance.
- Independence Movement: Gandhi led India's struggle for independence through mass non-cooperation movements like the Salt March and boycotts of British goods.
- **Day of National Importance:** Gandhi Jayanti on October 2nd is a day for India to reflect on Gandhian values of truth, non-violence, and peace.
- **Global Recognition:** Recognized by the UN as International Day of Non-Violence, Gandhi's teachings continue to inspire global peace efforts.

- **Celebration and Observance:** Raj Ghat in Delhi hosts tributes and cultural events, while schools emphasize Gandhian principles through assemblies, essays, and community service.
- **Contemporary Relevance:** Gandhi's principles remain pertinent in modern conflict resolution, environmental awareness, and social justice education.

WORLD ANIMAL DAY 2024



- World Animal Day is observed annually on October
 4th, aligning with St. Francis of Assisi's feast day, emphasizing compassion for animals.
- 2024 Theme: "The World Is Their Home Too", highlighting the importance of coexistence and animals' rights to a secure environment.
- **Historical Background:** Originated in 1925, with the date officially moved to October 4th in 1929 to connect animal welfare with spiritual traditions.
- Awareness and Advocacy: Serves as a platform for raising awareness about issues like habitat destruction, illegal wildlife trade, and animal cruelty.
- **Global Impact:** Contributes to stronger animal protection laws, increased funding for conservation, and a global network of advocacy organizations.

WORLD TEACHERS' DAY 2024



- World Teachers' Day is held annually on 5 October, established by UNESCO in 1994 to honor teachers globally.
- Historical Significance: Commemorates the 1966 UNESCO-ILO Recommendation on teachers' rights and responsibilities.
- **2024 Theme**: "Valuing Teacher Voices: Towards a New Social Contract for Education", focusing on teacher empowerment and inclusion in policy-making.
- Challenges for Educators: Highlights issues like technological integration, resource constraints, and work-life balance.
- Global Observances: Various countries celebrate with award ceremonies, educational conferences, and student-led tributes.

WORLD HABITAT DAY 2024



- World Habitat Day, observed annually on the first Monday of October, is a global event aimed at raising awareness about the fundamental right to adequate housing.
- Established by the United Nations General Assembly in 1985, the day serves as a reminder that everyone deserves a safe, decent, and affordable home. This year, it was celebrated on October 7th.
- Importance of World Habitat Day:
 - Advocating for Housing Rights: The day emphasizes that housing is a basic human right, calling for policies and actions to ensure access to adequate housing for everyone, regardless of income or social standing.
 - Tackling Urban Challenges: As cities grow rapidly, issues like overcrowding, lack of infrastructure, and housing shortages emerge. World Habitat Day highlights the need for sustainable and inclusive urban development to address these challenges.
 - **Promoting Community Involvement:** It also highlights the importance of communities in shaping their living spaces, encouraging active participation in the planning and execution of housing initiatives.



- Raising Environmental Awareness: The day focuses on the environmental impact of housing, promoting sustainable building practices that reduce resource use and pollution.
- Theme of World Habitat Day 2024: "Engaging Youth to Create a Better Urban Future"
- This year's theme underscores the significant role
 of young people in shaping the future of cities. It
 recognizes their fresh perspectives, creativity, and
 potential to foster positive change. Engaging youth is
 seen as key to building more inclusive, sustainable, and
 resilient urban spaces.

WORLD CEREBRAL PALSY DAY 2024



- World Cerebral Palsy Day 2024 Observed on October 06th.
- It aims to raise awareness and advocate for the rights of individuals living with CP.
- **Cerebral Palsy Overview**: CP is a neurological condition affecting movement and coordination due to brain damage during development, often before birth.
- World Cerebral Palsy Day: Observed on October 6, this day raises awareness and advocates for the rights of individuals with CP, emphasizing early intervention and support.
- Theme of Uniquely CP: The 2024 theme celebrates the individuality within the CP community, promoting the idea that a person's disability does not define their entire identity.

WORLD COTTON DAY 2024



- World Cotton Day: Celebrated annually on October 7, it honors cotton's significance in various industries beyond textiles, including medical supplies and animal feed.
- Historical Context: Initiated by the "Cotton Four" nations (Burkina Faso, Benin, Chad, Mali) in 2019 to promote cotton and its by-products.
- **Economic Impact:** Cotton production is vital for developing nations, contributing to economic development and poverty alleviation.
- **Sustainable Development Goals:** Cotton supports several UN goals, with international organizations collaborating to enhance the cotton sector.
- Awareness and Support: The day aims to raise awareness about challenges in the cotton sector and promote sustainable practices.

INDIAN AIR FORCE DAY 2024



- As India prepares to celebrate the 92nd Indian Air Force Day on October 8, 2024, the nation honors the exceptional dedication and sacrifices of its air warriors.
- This significant occasion highlights the IAF's remarkable journey to becoming one of the world's leading aerial forces.
- **Venue and Schedule:** The celebrations will take place at Marina Beach in Chennai, featuring a spectacular airshow on Sunday from 11 a.m. to 1 p.m., showcasing India's aerial capabilities and advancements in aviation.
- **Distinguished Attendees:** The event will be attended by high-ranking officials, including Defence Minister Rajnath Singh, Tamil Nadu Chief Minister M.K. Stalin, Air Chief Marshal A.P. Singh, and Chief Secretary N. Muruganandam.

• Theme:

- The theme for this year, "Bhartiya Vayu Sena: Saksham, Sashakt, Atmanirbhar" (Potent, Powerful, and Self-Reliant), reflects the IAF's vision for self-sufficiency in defense capabilities and operational excellence.
- The IAF Chennai Air Show 2024, held on October 6, attracted over 1 million spectators, with attendees arriving as early as 7 AM to secure good viewing spots.



- Indian Air Force Day 2024 Slogan:
 - The theme for Indian Air Force Day 2024 is "Bhartiya Vayu Sena: Saksham, Sashakt, Atmanirbhar" (Capable, Strong, and Self-Reliant).
 - This theme underscores the IAF's commitment to self-sufficiency and modernization, aligning with India's vision for a robust defense capability.
- Historical Journey of the Indian Air Force:
 - The Indian Air Force was founded on October 8, 1932, originally serving as an auxiliary air force under British rule.
 - It officially began operations with its first flight on April 1, 1933.
 - Despite starting with limited resources and personnel, the IAF has undergone remarkable growth and transformation over the past nine decades.
 - The motto of the Indian Air Force (IAF) is "Nabha Sparsham Deeptam" which translates to "Touch the sky with glory".
 - The motto comes from the eleventh chapter of the Bhagavad Gita, where Lord Krishna describes his form as reaching the sky with glory.
 - The IAF's goal is to use aerospace power to defend the nation.
- The IAF's air warrior code includes the following principles:
 - **Excellence:** Air warriors pursue excellence in everything they do.
 - **Honesty:** Air warriors are honest and live up to the trust placed in them.
 - **Safety and welfare:** Air warriors lead with concern for the safety and welfare of their subordinates.

WORLD MENTAL HEALTH DAY 2024



- World Mental Health Day is observed annually on October 10 and was first established in 1992 by the World Federation for Mental Health (WFMH).
- This global event aims to raise awareness about mental health issues and mobilize support for mental health care around the world.

Objectives

- The primary goal of this day is to increase awareness of mental health issues globally and to mobilize efforts in support of mental health.
- It serves as a platform for stakeholders working in mental health to discuss their work and identify what more needs to be done to make mental health care accessible to all.

Theme for 2024

- The theme for 2024 is "Mental Health at Work", emphasizing the vital link between mental health and the workplace.
- With approximately 60% of the global population engaged in some form of employment, it is crucial to address mental health in work environments.
- Safe and inclusive workplaces can enhance mental well-being, while poor conditions can pose significant mental health risks.
- This theme underscores the importance of collective action to create work environments that promote mental health, mitigate harm, and support those in need

Mental Health in the Workplace: Key Factors and Considerations



WORLD POST DAY 2024

- **Date and Significance**: Celebrated annually on **October 9**, marking the establishment of the **Universal Postal Union (UPU) in 1874**.
- History: Officially declared during the UPU Congress in Tokyo in 1969, aimed at raising awareness about postal services' roles.





- Global Participation: Over 150 countries celebrate, with various activities including promotions and employee recognition.
- Impact on Society: Highlights the importance of postal services in communication, economic growth, and disaster relief.
- 2024 Theme: Focuses on "150 years of enabling communication and empowering peoples across nations", reflecting on UPU's achievements.

NATIONAL POSTAL DAY 2024



- Every year on October 10th, India commemorates
 National Postal Day, a significant observance that marks the establishment of the Indian Postal Service.
- This annual celebration serves as a tribute to the vast network of postal workers and the crucial role they play in connecting the nation.
- Historical Significance: Established on October 10, 1854, marking the foundation of the Indian Postal Service during the East India Company's rule.
- **Evolution**: Transitioned from basic mail delivery to a comprehensive service offering financial, insurance, and digital solutions.
- **National Postal Week**: Celebrated from October 9 to 15, featuring themed days like PLI Day and Stamp Collection Day.
- Community Impact: Plays a vital role in bridging urban-rural divides and providing employment opportunities.
- Modernization Initiatives: Embracing technology for efficiency, including digital tracking and online services.

WORLD MIGRATORY BIRD DAY 2024



- Event Dates: World Migratory Bird Day will be observed on 11 May and 12 October 2024, focusing on seasonal bird migrations.
- **Theme:** The 2024 theme is "Insects for Birds", emphasizing the critical role of insects in the survival of migratory birds.
- **Call to Action:** The campaign encourages organic farming, reducing pesticide use, and restoring habitats to combat insect population decline.
- **International Cooperation:** There is a focus on protecting bird populations from avian flu, with initiatives like webinars for wildlife management.
- Importance of Insects: Insects are vital for many migratory birds, influencing their migration timing and breeding success.

BREAST CANCER AWARENESS DAY 2024



- **Breast Cancer Awareness Month (BCAM):** Observed every October to raise awareness about breast cancer and the importance of early detection.
- Metastatic Breast Cancer Awareness Day: October
 13 is dedicated to increasing awareness about stage four breast cancer.



- Campaign Theme: In 2024, "No one should face breast cancer alone", highlighting the importance of peer support.
- **Symptoms to Watch:** Unexplained nipple discharge and skin changes can be warning signs of breast cancer.
- Global Impact: Breast cancer is the most common cancer worldwide, with significant effects in low- and middle-income countries due to limited healthcare access.

WORLD STANDARDS DAY 2024



- World Standards Day: Celebrated on October 14, it recognizes contributions to international standards, promoting safety, quality, and efficiency in various industries.
- The theme for 2024: "Shared Vision For a Better World", focusing on standards' role in addressing global challenges like digital transformation and climate change.
- Importance of Standards: They enhance safety, reliability, and quality in products and services, facilitating international trade and improving quality of life.
- Healthcare Standards: Ensure medical devices and pharmaceuticals are safe and effective, especially crucial in low-resource settings.
- Environmental Standards: Address climate change through sustainable practices, helping to reduce the global carbon footprint.

WORLD FOOD DAY 2024



- World Food Day, observed annually on October 16th, serves as a global call to action in the fight against hunger and malnutrition.
- As we approach World Food Day 2024, it's crucial to understand the significance of this year's theme and the ongoing challenges in global food security.
- Theme: The 2024 World Food Day focuses on "Right to Foods for a Better Life and a Better Future", emphasizing the human right to adequate nutrition.
- **Global Hunger:** Approximately 733 million people face hunger, with over 2.8 billion unable to afford a healthy diet, highlighting ongoing food security challenges.
- Malnutrition: Unhealthy diets lead to various forms of malnutrition, including undernutrition and obesity, affecting all socio-economic classes.
- Agrifood Systems: Vulnerable agrifood systems are impacted by crises and climate change, contributing to environmental degradation.
- **World Food Forum:** Scheduled for October 14-18, 2024, it aims to address food system challenges and promote sustainable practices.

BIRTH ANNIVERSARY OF DR. A.P.J. ABDUL KALAM 2024



- Every year, October 15 is celebrated as World Students' Day to honor the birth anniversary of Dr. APJ Abdul Kalam.
- This day is a special effort to recognize his contribution to education and his role as a role model for young people.
- World Students' Day encourages students worldwide to dream big and work hard to achieve their goals.

Early Life and Education

- Born on October 15, 1931, in Rameswaram, Tamil
 Nadu, Dr. Kalam came from a humble background.
- Despite financial hardships, he pursued his studies with determination, earning degrees in physics and aerospace engineering.
- His early struggles and dedication to learning made him an inspirational figure, especially for students from underprivileged backgrounds.



Career in Science and Technology

- Dr. Kalam's career began at the Defence Research and Development Organisation (DRDO), where he started working on defense projects. His work on India's first Satellite Launch Vehicle (SLV-III) at ISRO helped successfully launch the Rohini satellite into orbit in 1980.
- Dr. Kalam's dedication to missile technology led to India's indigenous missile development, with notable projects like Agni and Prithvi missiles, earning him the title "Missile Man of India".

Role in India's Nuclear Program

- Dr. Kalam played a pivotal role in India's Pokhran-II nuclear tests in 1998, solidifying India's stance as a nuclear power.
- His work not only strengthened India's technological capabilities but also raised national pride.

President of India

- Serving as the 11th President of India from 2002 to 2007, Dr. Kalam was widely known as the "People's President".
- His leadership style and focus on education and development endeared him to the public, particularly the youth.

World Students' Day

- The United Nations designated Dr. Kalam's birthday, October 15, as World Students' Day, honoring his lifelong dedication to education and student empowerment.
- Dr. Kalam believed education to be the foundation for social transformation and encouraged students to dream big and work hard toward their aspirations.

Awards and Honors

- Dr. Kalam received numerous awards, including the Bharat Ratna, Padma Vibhushan, and Padma Bhushan, which are among India's highest civilian honors.
- His legacy endures in the fields of science, technology, education, and public service.
- Dr. Kalam's life continues to inspire millions. His commitment to empowering youth and fostering educational growth remains a guiding force for students around the world, encouraging them to dream, persevere, and achieve.

WORLD ANAESTHESIA DAY 2024

- World Anaesthesia Day Significance: Celebrated on October 16, it marks the first successful public demonstration of diethyl ether anaesthesia in 1846, highlighting its impact on modern medicine.
- Historical Milestone: The day commemorates William Thomas Green Morton's administration of ether during surgery, which allowed for pain-free operations and transformed surgical practices.



- Awareness and Advancements: It is a platform to promote advancements in anaesthesia technology, emphasizing the importance of staying updated for improved patient safety and outcomes.
- Equitable Access: The day also highlights the need for equitable access to anaesthesia services globally, particularly in low-income countries where such access is limited.

WORLD STATISTICS DAY 2024



- Celebration Date: World Statistics Day celebrated on October 20, 2024, marking its fourth occurrence since 2010.
- Significance of Statistics: The day emphasizes the importance of reliable data in governance, economics, and achieving the Sustainable Development Goals (SDGs).
- Focus on National Challenges: National Statistical Offices (NSOs) will demonstrate how data is used to address issues like food security and income inequality.
- **Future of Statistics**: The role of statistics is expected to grow, especially in tackling global challenges such as climate change and pandemics.

WORLD IODINE DEFICIENCY DAY 2024

 World Iodine Deficiency Day—also known as Global Iodine Deficiency Disorders Prevention Day is observed every year on October 21st. This day highlights the essential role of iodine in human health, especially in preventing iodine deficiency disorders, which remain a significant global health concern.





Importance of Iodine

- Iodine is a trace mineral crucial for the production of thyroid hormones, which regulate growth, metabolism, and brain development.
- An adequate intake of iodine is particularly vital during pregnancy, infancy, and early childhood to ensure healthy brain development and to prevent physical and cognitive impairments.

Consequences of Iodine Deficiency

- Iodine deficiency can lead to a range of health issues collectively known as Iodine Deficiency Disorders (IDDs). These include:
 - Goiter (enlargement of the thyroid gland)
 - **Cretinism** (severe physical and mental retardation in children born to iodine-deficient mothers)
 - Intellectual Disabilities and Learning Difficulties in children
- Increased risk of **stillbirths** and **miscarriages** in pregnant women

Global and National Efforts to Prevent Iodine Deficiency

- Various national and international health organizations, including the World Health Organization (WHO) and UNICEF, have implemented initiatives to combat iodine deficiency. One of the most effective interventions has been Universal Salt Iodization (USI), ensuring that all salt for human consumption is fortified with iodine.
- Many countries, including India, have adopted USI programs to improve iodine intake among their populations.

Achievements in Eradicating Iodine Deficiency

- Thanks to these preventive measures, the prevalence of iodine deficiency has significantly decreased globally. Continuous awareness campaigns, regular monitoring of iodine levels, and mandatory salt iodization policies in several countries have been instrumental in reducing the risks associated with iodine deficiency.
- World Iodine Deficiency Day serves as a reminder of the importance of maintaining adequate iodine intake and encourages individuals, governments,

and organizations to continue their efforts toward eradicating iodine deficiency disorders worldwide.

GLOBAL MEDIA AND INFORMATION LITERACY WEEK 2024, 24-31 OCTOBER



- Global Media and Information Literacy Week: Celebrated from October 24-31, focusing on raising awareness about Media and Information Literacy (MIL) for all.
- The theme for 2023: "Media and Information Literacy for Public Interest Information", addressing challenges in the digital landscape, including misinformation and AI-generated content.
- **Importance of Critical Thinking**: Emphasizes the need for individuals to evaluate information reliability and understand ethical implications.
- UN Recognition: In 2021, the UN General Assembly acknowledged the significance of MIL to combat the digital divide.
- **Empowerment through MIL**: Equips citizens to engage in dialogue, freedom of expression, and sustainable development.

UNITED NATIONS DAY 2024



 United Nations Day is celebrated on October 24, marking the UN's foundation in 1945 and its mission for global peace and development.



- **Annual Theme**: The theme for 2024 has not been announced yet, but it will likely focus on current global challenges like sustainability and human rights.
- Global Celebrations: Events include school programs, diplomatic ceremonies, and virtual activities to engage people worldwide.
- Awareness and Reflection: The day emphasizes the importance of human rights, sustainable development, and addressing global challenges like climate change and inequality.

WORLD POLIO DAY 2024



- World Polio Day, observed every year on October 24, brings global attention to the fight against polio, a debilitating disease caused by the poliovirus.
- This day emphasizes the critical need for worldwide vaccination efforts, collaboration, and vigilant monitoring to eliminate the virus and prevent its return.
- Poliovirus, which can lead to paralysis or even death, exists in three forms: Wild Poliovirus Type 1 (WPV1), Type 2 (WPV2), and Type 3 (WPV3).

History of World Polio Day

- World Polio Day was established in 1985 by Rotary International to honor Dr. Jonas Salk, who pioneered the first effective polio vaccine.
- His groundbreaking work laid the foundation for the Global Polio Eradication Initiative (GPEI), a collaboration between Rotary International and the World Health Organization (WHO) in 1988.
- Since then, polio cases have plummeted by over 99%, with regions like the Americas, Europe, Southeast Asia, and the Western Pacific achieving polio-free status.

Importance of World Polio Day in 2024

- World Polio Day reminds the global community of the ongoing need to eliminate polio and ensures continued support for this cause.
- Key goals of this day include:
 - Acknowledging the efforts of healthcare professionals, organizations, and volunteers dedicated to polio eradication.

- Stressing the role of vaccination in preventing the virus from re-emerging.
- Increasing awareness of the persistent challenges faced by countries where polio still exists.
- Encouraging public support for campaigns like End Polio Now and the Global Polio Eradication Initiative.
- Organizations like Rotary International, WHO, and UNICEF conduct events, rallies, and educational programs to promote polio awareness and prevention.

Current Polio Challenges

- While polio has largely been eradicated, it continues to pose challenges in certain countries. Pakistan and Afghanistan remain the last countries with wild poliovirus, with Pakistan reporting 16 cases as of August 2024 and Afghanistan 14 cases by July 2024.
- Additionally, the spread of vaccine-derived poliovirus (VDPV) has led to outbreaks in several areas, including Mozambique, Malawi, and the United States.
- In 2022, the U.S. documented a case of paralysis from type 2 VDPV in New York.
- In August 2024, the Gaza Strip recorded its first polio case of the century, affecting a 10-month-old boy who experienced partial paralysis.
- This case, a result of vaccine-derived poliovirus, illustrates that while wild poliovirus is under control in many regions, vaccine-derived strains can still pose risks, especially in communities with low vaccination rates.

INFANTRY DAY, 2024



- **Infantry Day** is celebrated annually in India on **October 27** to honor the contributions of the infantry in defending the nation's sovereignty and security.
- This date commemorates a critical event in 1947 when the 1st Battalion of the Sikh Regiment landed at Srinagar airfield to protect Jammu and Kashmir from the Pakistani Kabaili Raiders.
- Their courageous action played a vital role in preventing Pakistan from occupying Jammu and Kashmir.
- Historical Context:
 - October 27, 1947: The 1st Battalion of the Sikh Regiment arrived in Srinagar, marking a decisive moment in India's defense of Jammu and Kashmir.



- This operation helped halt Pakistan's incursion, safeguarding the territory and its people.
- "Queen of the Battle": The infantry is often called the "Queen of the Battle", symbolizing its central role in military operations and its valorous contributions throughout history.
- Recognition of Valor:
 - Prime Minister Narendra Modi praised the bravery and unwavering commitment of infantry personnel and veterans, stating,
 - "On Infantry Day, we all salute the indomitable spirit and courage of all ranks and veterans of the infantry, who tirelessly protect us".
 - He highlighted their dedication to ensuring national security and peace, emphasizing that the infantry embodies strength, valor, and duty.

Role of Infantry in India's Defense

- Sovereignty Protection: The infantry has been instrumental in defending India's sovereignty since independence, participating in key conflicts, such as:
 - 1947-48 War with Pakistan (Defense of Jammu and Kashmir)
 - 1962 War with China
 - 1965 and 1971 Wars with Pakistan
 - 1999 Kargil Conflict
- Counter-Insurgency and Counter-Terrorism:
 - The infantry has demonstrated its professionalism and dedication through involvement in numerous operations:
 - Counter-Insurgency/Counter-Terrorism Operations in North and Northeast India.
 - Operation Blue Star and Operation Rakshak in Punjab.
 - Operation Pawan in Sri Lanka.
 - Operation Snow Leopard in Eastern Ladakh.
 - Infantry Day celebrates the sacrifice, courage, and resolve of India's infantry soldiers, recognizing their pivotal role in preserving the nation's integrity and inspiring future generations of the armed forces.

INTERNATIONAL ANIMATION DAY, 2024



• International Animation Day (IAD) is an annual celebration held on October 28 to honor the rich history and global impact of animation as an art form. Established by the Association Internationale du Film d'Animation (ASIFA) in 2002, IAD marks the anniversary of the first public projection of animated images by Émile Reynaud on October 28, 1892, in Paris. Reynaud's Théâtre Optique introduced audiences to the magic of moving images, setting a foundation for what animation would become.

Purpose and Significance

- Cultural Recognition: Animation is celebrated as a dynamic and expressive medium that spans various forms—film, television, theater, advertising, and digital platforms.
- Artistic Expression: The day showcases the diversity in animation styles, from traditional hand-drawn and claymation to digital animation and sand animation.
- Global Connection: Animation transcends language, making it a powerful tool for cultural exchange and storytelling across borders.

ASIFA's Mission

- ASIFA promotes animation globally by:
 - Encouraging public awareness of animation's artistic value.
 - Supporting collaboration among international animation communities.
 - Facilitating the exchange of animated works, fostering a shared appreciation for the medium worldwide.

Celebrating IAD: Activities and Events

- People celebrate International Animation Day through:
 - **Film Screenings**: Animated films and shorts are shown to highlight animation's evolution.
 - Workshops and Hands-On Activities: Participants can explore various animation techniques.
 - Conferences and Exhibitions: Discussions on animation history, current trends, and technological advances.
 - Film Program Exchange: IAD encourages international film program exchanges to share cultural perspectives through animation.
- Whether through attending screenings, engaging in workshops, or watching animated films at home, IAD allows fans and creators to come together to celebrate this vibrant art form.

VIGILANCE AWARENESS WEEK 2024

 Vigilance Awareness Week is an annual initiative by India's Central Vigilance Commission (CVC) to promote transparency, ethics, and active anticorruption measures.





- Observed during the week of October 31 (aligning with the birth anniversary of Sardar Vallabhbhai Patel), the week encourages citizens to uphold integrity and contribute to building a vigilant society.
- For 2024, Vigilance Awareness Week runs from October 28 to November 3 with the theme, "Culture of Integrity for Nation's Prosperity".

Objectives of Vigilance Awareness Week 2024

- Raise Awareness:
 - Educate the public about the negative impacts of corruption on social justice, economic growth, and national security.
 - Highlight the role of ethics in strengthening public life and governance.
- Encourage Reporting and Action: Promote public involvement in reporting corrupt activities and support mechanisms like the Public Interest Disclosure and Protection of Informers (PIDPI) Resolution, which protects whistleblowers.
- Promote Integrity in Governance:
 - Showcase the role of vigilance organizations in deterring corruption.
 - Emphasize the importance of ethical governance in protecting public interests.
- Significance of Vigilance Awareness Week:
 - Anti-Corruption Focus: It dedicates a platform for anti-corruption efforts, urging individuals and institutions to commit to integrity.
 - **Public Education:** Informs citizens about corruption's harm to national progress and the importance of ethical standards.
 - Preventive Vigilance: Promotes awareness of resolutions like PIDPI to empower safe reporting and discourage corrupt practices.
 - **Capacity Building:** Provides training for individuals and organizations to counter corruption effectively.
 - Systemic Enhancements: Focuses on systemic improvements to increase institutional resistance to corruption.

- Why Vigilance Awareness Week is Essential for India:
 - With India ranked **93rd on the Corruption Perception Index** (2023), the country faces ongoing challenges in combating corruption.
 - Vigilance Awareness Week serves as a reminder of the importance of transparency and ethics in achieving socio-economic goals, enhancing anticorruption agencies, and fostering openness, particularly in business and education sectors.
- Central Vigilance Commission (CVC):
 - The CVC is India's apex institution overseeing vigilance administration.
 - Established on the recommendations of the **K. Santhanam Committee** in **1964** and given statutory status through the **CVC Act of 2003**, it operates independently, accountable only to Parliament.
 - The CVC's autonomy allows it to supervise vigilance activities across organizations under the executive power of the Government of India, making it a crucial body in India's anti-corruption framework.

AYURVEDA DAY 2024



- Ayurveda Day is celebrated annually to honor Ayurveda, one of the world's oldest holistic health systems originating from ancient India.
- Observed on **Dhanvantari Jayanti** (Dhanteras), Ayurveda Day highlights the principles of balance and natural healing that are foundational to Ayurveda.
- In 2024, the 9th Ayurveda Day falls on October 29, uniting over 150 countries under the theme, "Ayurveda Innovations for Global Health".

Understanding Ayurveda: The Science of Life

- The term **Ayurveda** combines "**ayu**" (life) and "**veda**" (knowledge), meaning "knowledge of life".
- Ayurveda focuses on harmonizing the body, mind, and spirit to promote overall well-being.
- Using natural elements, Ayurveda provides both preventive and curative healthcare, originating from Lord Dhanvantari, the divine healer in Hindu tradition.



- Significance of Ayurveda Day:
 - Ayurveda Day was initiated by the Government of India in 2016 to increase awareness of Ayurvedic practices and medicinal herbs.
 - This observance promotes a better understanding of Ayurveda's principles, with the Ministry of Ayush leading this national initiative as part of India's healthcare heritage.

Ayurveda Day 2024 Theme: "Ayurveda Innovations for Global Health"

- This theme emphasizes Ayurveda's potential to address global health challenges, such as:
 - Non-communicable diseases (NCDs)
 - Antimicrobial resistance (AMR)
 - Climate-related health issues
- Ayurveda's role in preventive health aligns with UN Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) initiatives.

Key Objectives of Ayurveda Day 2024

- Addressing Global Health Issues: Targeting NCDs, AMR, climate-related health concerns, geriatric care, mental health, and nutrition.
- **Promoting Holistic Wellness:** Encouraging preventive healthcare and lifestyle adjustments.
- Supporting International Collaboration: Facilitating Ayurveda's expansion through global health platforms and collaborations.
- Prime Minister's Inauguration of Health Initiatives:
 On Ayurveda Day 2024, Prime Minister Narendra

 Modi will launch major projects valued at over Rs
 12,850 crore to advance India's healthcare, focusing on Ayurveda's integration into mainstream health services.

Major Projects

- Expansion of the All India Institute of Ayurveda (AIIA): Inauguration of a Panchakarma hospital, Ayurvedic pharmacy, sports medicine unit, central library, and IT incubation center.
- Four Avush Centers of Excellence:
 - Centre for Diabetes and Metabolic Disorders (IISc, Bengaluru)
 - Sustainable Ayush for Advanced Technological Solutions (IIT Delhi)
 - Fundamental and Translational Research in Ayurveda (CDRI, Lucknow)
 - Avurveda and Systems Medicine (INU, New Delhi)

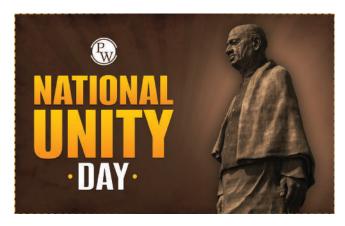
- Central Research Institutes in Yoga and Naturopathy: Foundation stones in Khordha, Odisha, and Raipur, Chhattisgarh.
- Focus Areas for Ayurveda Day 2024:
 - Women's Health: Providing guidance on diet, lifestyle, and preventive care for women.
 - Workplace Wellness: Promoting Ayurvedic practices to manage stress and improve productivity in work settings.
 - School Wellness Programs: Focusing on children's health through immunity-boosting measures and personalized nutrition.
 - **Food Innovation**: Merging Ayurvedic dietary guidelines with modern culinary techniques.
- Celebratory Activities (October 21-29, 2024):
 - Global Awareness Campaigns: Promoting Ayurveda's health benefits.
 - Educational Lectures: Offering insights on Ayurvedic wellness and disease prevention.
 - Public Rallies: Engaging communities in Ayurvedic practices.
 - Free Diagnostic Camps: Providing access to Ayurvedic consultations.

Historical Roots of Ayurveda

- Ayurveda originated in the Vedic period (5000–1000 BC), with classical texts like Caraka Samhita and Susruta Samhita systematizing Ayurvedic knowledge.
- Influencing countries like China, Japan, Egypt, and Greece, Ayurveda became an early international medical system, with Takshashila and Nalanda universities attracting global students by 200 BC.
- Global Recognition of Ayurveda:
 - Ayurveda is legally recognized as a traditional medicine in 24 countries.
 - WHO has included Ayurveda in its ICD-11 TM Module 2 and established benchmarks for Ayurvedic training and practices.
 - The Global Traditional Medicine Centre (GTMC) in Jamnagar, Gujarat, promotes international research, education, and practice in Ayurveda.
- Ayurveda's Expanding Global Role:
 - The 9th Ayurveda Day celebrates Ayurveda's enduring relevance and potential for addressing modern health challenges through a holistic, sustainable approach.
 - With expanding global participation, Ayurveda Day underscores the importance of traditional knowledge in achieving global health goals.



NATIONAL UNITY DAY 2024



- National Unity Day is celebrated in India every October 31st to honor the birth anniversary of Sardar Vallabhbhai Patel, a key figure in India's independence movement and its first Deputy Prime Minister and Home Minister. Known as the "Iron Man of India", Patel played a crucial role in uniting the country's numerous princely states into a single, independent nation.
- Overview of National Unity Day:
 - Date: October 31st (annually)
 - **Significance**: Honors the birth anniversary of Sardar Vallabhbhai Patel, commemorating his efforts in shaping modern India.
 - Purpose: Serves as a reminder of Patel's dedication to uniting India's diverse states, fostering a spirit of national unity and solidarity.
- Highlights of the Ekta Diwas Parade: The Ekta Diwas Parade is a central feature of the celebrations, showcasing the unity and strength of India's diverse forces.
- **Participants: Marching Contingents**: 16 contingents from nine states, one Union Territory, four Central Armed Police Forces, NCC, and a marching band.
- Special Attractions:
 - Hell March: Performed by the National Security Guard (NSG).
 - Daredevil Biking Show: Stunt performances by BSF and CRPF bikers.

- Martial Arts Display: Traditional Indian martial arts by BSF personnel.
- **Piped Band Performance**: School children's band performance adding a ceremonial touch.
- **Surya Kiran Flypast**: Aerial aerobatics by the Indian Air Force's **Surya Kiran** team.

Key Messages of National Unity Day

- Reinforces the significance of unity in diversity within India.
- Pays tribute to Sardar Patel's vision and leadership in uniting the nation.
- Encourages citizens to uphold a spirit of togetherness and strengthen bonds across regions.
- Tribute by Prime Minister Narendra Modi in 2024:
- **Location**: PM Modi paid tribute at the **Statue of Unity** in **Kevadia, Gujarat**.
- Ceremonial Tribute: He laid a wreath, participated in a Unity Oath, and attended the grand Unity Day Parade.
- Message on X: PM Modi wrote, "My salutations to Bharat Ratna Sardar Vallabhbhai Patel on his birth anniversary. Protecting the unity and sovereignty of the nation was the top priority of his life. His personality and work will continue to inspire every generation of the country".
- Sardar Vallabhbhai Patel's Legacy:
 - Birth: October 31, 1875, in Nadiad, Gujarat.
 - A prominent freedom fighter and close ally of Mahatma Gandhi.
 - Known as the Iron Man of India for his firm resolve and leadership.

Key Contributions

- First Deputy Prime Minister and Home Minister of independent India (1947-1950).
- United 562 princely states into a cohesive India, ensuring sovereignty and stability.
- His efforts laid the foundation for a unified and independent nation.
- National Unity Day serves as a powerful reminder of Sardar Patel's enduring legacy and the importance of unity for a prosperous and resilient India.



Practice Set

- 1. Consider the following statements regarding the recognition of Classical Languages in India:
 - The Union Cabinet oicially recognized Marathi, Pali, Prakrit, Assamese, and Bengali as Classical Languages on October 3, 2024.
 - 2. The total number of Classical Languages in India is now eleven.
 - The criteria for Classical Language status include the presence of a large contemporary speaker population.

Which of the above statements is/are correct?

- (*a*) 1 only
- (b) 1 and 3
- (c) 1 and 2
- (d) 1, 2 and 3
- **2.** In which present-day region did the Battle of Walong take place?
 - (a) Jammu and Kashmir
 - (b) Arunachal Pradesh
 - (c) Sikkim
 - (d) Ladakh
- **3.** Where did the Indian Prime Minister recently inaugurated the Banjara Virasat Museum?
 - (a) Bhopal, Madhya Pradesh
 - (b) Lucknow, Uttar Pradesh
 - (c) Jaipur, Rajasthan
 - (d) Poharadevi, Maharashtra
- **4.** Consider the following statements given below:
 - The Production Linked Incentive (PLI) Scheme was launched in April 2020 to promote domestic manufacturing and reduce import dependency.
 - It provides financial incentives to companies on their incremental sales of products manufactured in India.

Which of the statements given above is/are correct?

- (a) 1 only
- (*b*) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **5.** Which company has been selected as the system integrator for the Food Corporation of India's (FCI) Anna DARPAN Project?
 - (a) Infosys
- (b) Wipro
- (c) Coforge Limited
- (d) TCS

- **6.** Exercise KAZIND-2024 is a joint military exercise between India and which country?
 - (a) Russia
- (b) Uzbekistan
- (c) Kazakhstan
- (d) Kyrgyzstan
- 7. Consider the following statements about Nirdeshak (Yard 3026):
 - 1. It is the second of four Survey Vessel (Large) ships being built for the Indian Navy.
 - 2. It was built at Cochin Shipyard Limited.
 - 3. Its purpose is to perform coastal and deep- water hydrographic surveys.

Which of the above statements is/are correct?

- (a) 1 and 3
- (b) 2 only
- (c) 2 and 3
- (d) 1, 2 and 3
- **8.** Naseem Al Bahr is the naval exercise between:
 - (a) India and Royal Navy Oman
 - (b) Indian and UAE
 - (c) India and Bahrain
 - (d) India and USA
- **9.** Which countries currently participated in Exercise MALABAR along with India?
 - (a) USA, Japan, Australia
 - (b) USA, Russia, Japan
 - (c) France, UK, USA
 - (d) USA, China, Japan
- **10.** SIMBEX is an annual joint maritime bilateral exercise conducted between which two countries?
 - (a) China and India
 - (b) Singapore and Indonesia
 - (c) India and Singapore
 - (d) Malaysia and India
- 11. What is the type ship is represented by the 'Abhay'?
 - (a) Destroyer
 - (b) Frigate
 - (c) Anti-Submarine Warfare Shallow Water Craft
 - (d) Mine Countermeasure Vessel
- **12.** What is the theme of the second edition of the Chanakya Defence Dialogue?
 - (a) Strengthening Military Alliances
 - (b) Drivers in Nation Building: Fuelling Growth Through Comprehensive Security

- (c) Innovations in Defence Technology
- (d) Global Security Trends
- **13.** What is the primary aim of the Anna DARPAN Project by the Food Corporation of India (FCI)?
 - (a) To enhance international trade
 - (b) To improve supply chain management processes
 - (c) To promote organic farming
 - (d) To create a new food subsidy system
- 14. Recently, where was Bihar's first dry port inaugurated?
 - (a) Bhagalpur
- (b) Sitamarhi
- (c) Barh
- (d) Bihta
- **15.** The Sri Kartarpur Sahib Corridor connects which of the following locations?
 - (a) Amritsar, India to Lahore, Pakistan
 - (b) Dera Baba Nanak, India to Kartarpur, Pakistan
 - (c) Delhi, India to Karachi, Pakistan
 - (d) Jalandhar, India to Rawalpindi, Pakistan
- **16.** Consider the following statements:
 - 1. India and Uzbekistan signed the Bilateral Investment Promotion Agreement (BIPA) in 2024.
 - 2. The BIT aims to provide appropriate protection to investors from both countries, ensuring a minimum standard of treatment and non-discrimination.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 17. Which of the following was an important outcome of Maldivian President Muizzu's visit to India in October 2024?
 - (a) Increase in military presence in the Maldives
 - (b) Signing of agreements on a bilateral currency swap, prevention of corruption, etc.
 - (c) Complete withdrawal of Indian investments from the Maldives
 - (d) Establishment of a new embassy in Maldives
- **18.** Consider the following statements regarding the Indian Air Force Day:
 - 1. The theme of this year is "Bhartiya Vayu Sena: Saksham, Sashakt, Atmanirbhar".
 - 2. It was officially established on October 10, 1932.
 - 3. India celebrated the 91st Indian Air Force Day.

Which of the above given statements is/are correct?

- (a) 1, 2 and 3
- (b) 1 only
- (*c*) 1 and 3 only
- (d) 2 and 3 only
- **19.** Consider the following statements regarding World Mental Health Day:
 - 1. It is observed annually on October 10.
 - 2. The theme for this year is "Mental Health for All".

Which of the above given statements is/are correct?

- (*a*) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **20.** Scientists have recently detected the gases carbon dioxide and hydrogen peroxide on which of the following moons of Pluto?
 - (a) Nix
- (b) Hydra
- (c) Styx
- (d) Charon
- **21.** Which of the following will be the second tiger reserve in Bihar after Valmiki Tiger Reserve?
 - (a) Rajgir Wildlife Sanctuary
 - (b) Kaimur Wildlife Sanctuary
 - (c) Bhimbandh Wildlife Sanctuary
 - (d) Vikramshila Gangetic Dolphin Sanctuary
- 22. Consider the following statements about Auroras:
 - 1. They were recently captured at India's highest observatory located in Jammu.
 - 2. They observed in the Northern Hemisphere is called Aurora Australis.

Which of the statements given above is/are correct?

- (*a*) 1 only
- (b) 2 only
- (*c*) Both 1 and 2
- (d) Neither 1 nor 2
- **23.** Which of the following is the designation of the first confirmed Trojan asteroid of Saturn?
 - (a) 2020 TK7
- (b) 2019 UO14
- (c) 588 Achilles
- (d) 2011 OF99
- **24.** In which of the following states is the National Breeding Centre for the Great Indian Bustard located?
 - (a) Gujarat
- (b) Rajasthan
- (c) Madhya Pradesh
- (d) Maharashtra
- **25.** What is the primary function of the Monetary Policy Committee (MPC)?
 - (a) To set the cash reserve ratio (CRR)
 - (b) To determine the repo rate to control inflation
 - (c) To decide on foreign exchange rates
 - (d) To issue banking licenses
- 26. Which of the following would *not* be an appropriate use of the MLA-LAD Fund?
 - 1. Building parks
 - 2. Installing streetlights
 - 3. Repairing personal property
 - 4. Developing community centers

Select the correct answer using the options given below:

- (a) 1 and 2 only
- (b) 2 and 4 only
- (*c*) 1 and 3 only
- (*d*) 3 only
- **27.** Which United Nations Sustainable Development Goal does the e-Migrate Portal align with?
 - (a) Goal 2: Zero Hunger
 - (b) Goal 8: Decent Work and Economic Growth



- (c) Goal 10: Reduced Inequalities
- (d) Goal 5: Gender Equality
- **28.** Which of the following is the primary function of the SWIFT system?
 - (a) To transfer physical currency across borders
 - (b) To provide secure communication for financial transactions between banks
 - (c) To manage international stock market transactions
 - (d) To operate as a financial institution holding assets
- **29.** Which of the following statements about Lipulekh Pass is correct?
 - (a) It is located in the Kalapani Valley, forming a trijunction between India, Nepal, and Tibet (China).
 - (b) It is situated in the Vyas Valley, Kullu district, Himachal Pradesh.
 - (c) It is located above the Nanda Devi Sanctuary and is known for its dense forests.
 - (d) It is a popular tourist destination in Uttarakhand, mainly inhabited by the Rajput people.
- **30.** Match the List-I with List-II and select the correct answer using the code given below:

	List-I (Day)	List-II (Celebrated on)		
A.	United Nations Day	1.	October 2	
B.	Lal Bahadur Shastri Jayanti	2.	October 10	
C.	National Unity Day	3.	October 24	
D.	National Postal Day	4.	October 31	

- (a) A-3, B-1, C-4, D-2
- (b) A-3, B-4, C-2, D-1
- (c) A-3, B-1, C-2, D-4
- (d) A-3, B-2, C-4, D-1
- **31.** According to the Global Hunger Index 2024, which of the following is the rank of India?
 - (a) 104th
- (b) 105th
- (c) 106th
- (d) 107th
- **32.** Which of the following is the Central Public Sector Enterprise to get the 14th Maharatna status recently?
 - (a) Oil India Limited
 - (b) Indian Petroleum Limited
 - (c) Hindustan Aeronautics Limited
 - (d) National Mineral Development Limited
- **33.** Which of the following is the rank of India in the Nature Conservation Index 2024?
 - (a) 176th
- (b) 166th
- (c) 156th
- (d) 146th
- **34.** Often seen in the news, which country is militant group of Hezbollah primarily associated with?
 - (a) Syria
- (b) Iran
- (c) Lebanon
- (d) Iraq

- **35.** Which Indian agency has been designated as the implementing body for India's participation in the International Energy Eiciency Hub?
 - (a) Ministry of Power
 - (b) Bureau of Energy Eiciency (BEE)
 - (c) Indian Renewable Energy Development Agency (IREDA)
 - (d) National Thermal Power Corporation (NTPC)
- **36.** How many of the following languages have been given Classical language status in India?
 - 1. Tamil
- 2. Bengali
- 3. Hindi
- 4. Sanskrit

Select the correct answer from the codes given below:

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- **37.** Which of the following ports of India has been listed as an incentive provider on the Environment Ship Index (ESI) platform?
 - (a) Kandla Port
- (b) Mormugao Port
- (c) Mumbai Port
- (d) Paradip Port
- **38.** On which of the following days is Infantry Day celebrated in India?
 - (a) October 8
- (b) October 15
- (c) October 27
- (d) October 28
- **39.** Who received the Dadasaheb Phalke Award at the 70th National Awards ceremony?
 - (a) Amitabh Bachchan
 - (b) Rajinikanth
 - (c) Aamir Khan
 - (d) Mithun Chakraborty
- **40.** Match the following Nobel Prize categories with their respective 2024 awardees:

Nobel Prize Category			Awardees			
1.	Physics	A.	David Baker, Demis Hassabis, John Jumper			
2.	Chemistry	B.	John J. Hopfield, Geoffrey E. Hinton			
3.	Physiology or Medicine	C.	Daron Acemoglu, Simon Johnson, James A Robinson			
4.	Economics	D.	Victor Ambros, Gary Ruvkun			

Select the appropriate option from below:

- (a) 1-B, 2-A, 3-D, 4-C
- (b) 1-D, 2-C, 3-A, 4-B
- (c) 1-C, 2-C, 3-D, 4-B
- (d) 1-D, 2-B, 3-C, 4-A



- **41.** Han Kang is the first Nobel Prize winner for Literature from which country?
 - (a) Japan
- (b) China
- (c) South Korea
- (d) India
- **42.** Which organization won the Nobel Peace Prize for its efforts to achieve a world free of nuclear weapons?
 - (a) Greenpeace
 - (b) Nihon Hidankyo
 - (c) International Red Cross
 - (d) Amnesty International
- **43.** Deepika Kumari is a renowned athlete associated with which sport?
 - (a) Badminton
- (b) Tennis
- (c) Archery
- (d) Shooting
- **44.** Which of the following is a key feature of the Musaned platform of Saudi Arabia?
 - (a) It tracks financial transactions between employers and foreign workers to ensure compliance with wage agreements.
 - (b) It provides a marketplace for domestic workers to find employers directly.
 - (c) It allows employers to manage the salaries of their workers in multiple currencies.
 - (d) It serves as a job search platform for foreign workers in various sectors.
- **45.** Which department signed an MoU with the National Legal Services Authority (NALSA) for the SARTHIE 1.0 initiative?
 - (a) Ministry of External Affairs
 - (b) Department of Social Justice and Empowerment (DoSJE)
 - (c) Ministry of Labour and Employment
 - (d) Ministry of Finance
- **46.** Which among the following was the primary focus of the STARS knowledge-sharing workshop held in Bhopal?
 - (a) Enhancing sports education amongst the children
 - (b) Strengthening teaching-learning processes and assessment systems
 - (c) Developing vocational training programs
 - (d) Promoting higher education
- **47.** Which of the following correctly describes the significant change that is made in the design of the new 'Lady Justice' statue?
 - (a) It now holds a sword instead of scales.
 - (b) It is now depicted in a Western attire instead of a saree.
 - (c) It is been depicted as a 60 year old woman.
 - (d) It has removed the blindfold and holds the Constitution instead of a sword.

- **48.** What does the term "One Government" signify in the context of Karmayogi Saptah?
 - (a) A unified approach among all government departments towards national goals.
 - (b) The merging of similar departments of the state governments into one.
 - (c) The elimination of bureaucracy in government operations.
 - (d) The establishment of a single government agency for all services.
- **49.** Which of the following ministries are involved in the implementation of the Gram Panchayat-Level Weather Forecasting initiative?
 - (a) Ministry of Agriculture and Farmers' Welfare and NITI Aayog
 - (b) Ministry of Panchayati Raj, Ministry of Earth Sciences, and India Meteorological Department (IMD)
 - (c) Ministry of Rural Development and Ministry of Home Affairs
 - (d) Ministry of Environment and Ministry of Earth Sciences
- **50.** With reference to the NAMASTE scheme, consider the following statements:
 - 1. The scheme is aimed at ensuring the safety and dignity of sanitation workers in urban India.
 - 2. It is a joint initative by the Ministry of Social Justice and Empowerment and the Ministry of Housing and Urban Affairs.

Which of the above statements is/are correct?

- (*a*) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **51.** With reference to the Prime Minister's Internship Scheme, consider the following statements:
 - 1. This initiative aims to enhance their employability and bridge the gap between education and practical work experience.
 - 2. It has been jointly launched by the Ministry of Education and Ministry of Corporate Affairs.

Which of the above statements is/are correct?

- (*a*) 1 only
- (*b*) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **52.** Consider the following statements regarding the MAHA- EV Mission
 - 1. It is an initiative of the Ministry of New & Renewable Energy (MNRE).
 - 2. It focuses on the development of key Electric Vehicle technologies to reduce dependency on imports and promote domestic innovation in India.

Which of the statements given above is/are correct?

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



- **53.** Which of the following is the primary objective of the eShram initiative?
 - (a) To provide loans to small businesses to unorganized sector workers
 - (b) To offer social security benefits to unorganized sector workers
 - (c) To enhance working condiitons of the unorganized sector workers
 - (d) To promote digital literacy among the unorganized sector workers
- **54.** Which of the following pairs is/are correctly matched?

	Products	Categories			
1.	Bodo Napham	Unique Varieties of Rice Beer			
2.	Bodo Aronai	Cultural Textile			
3.	Maibra Jou Bidwi	Traditional Food Products			

Select the correct answer using the code given below:

- (*a*) 2 only
- (*b*) 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- 55. Which company signed a memorandum of understanding (MoU) with the Department of Posts (DoP) to enhance logistics and expand parcel delivery in India?
 - (a) Flipkart
- (b) Amazon
- (c) Snapdeal
- (d) Paytm
- **56.** Which two organizations signed a Memorandum of Agreement to enhance rail connectivity for mining operations?
 - (a) NMDC and Coal India Limited
 - (b) RITES and NMDC
 - (c) RITES and Coal India Limited
 - (d) GAIL and NDMC
- **57.** Which of the following is the primary objective of the partnership between GAIL and VERBIO?
 - (a) To build new mining sites
 - (b) To promote sustainable energy solutions by converting agricultural waste into renewable energy
 - (c) To develop fossil fuel reserves
 - (d) To export agricultural residue
- **58.** Consider the following statements:
 - 1. Electricity from Nepal to Bangladesh will be transmitted through this transmission line using India as a transit.
 - 2. Nepal will export 40 MW of electricity to Bangladesh using this transmission grid.

Identify the transmission grid based on the descriptions provided above.

- (a) Dhalkebar-Muzaffarpur 400 KV line
- (b) Dhaka-Kathmandu 500 KV line

- (c) Sunkoshi-Kolkata 400 KV line
- (d) Kathmandu-Delhi 300 KV line
- **59.** Consider the following statements:
 - CSIR-Central Drug Research Institute (CDRI), Lucknow, and Zydus Lifesciences Ltd signed an MOU for developing a drug specifically for osteoporosis in Chronic Kidney Disease (CKD) patients.
 - 2. The new drug being developed will target and inhibit the protein Sclerostin.
 - 3. The collaboration aims to provide a safer alternative to conventional osteoporosis drugs, which may pose risks to renal health.

How many of the above statements is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **60.** Which of the following countries is *not* part of the newly expanded BRICS?
 - (a) Iran
- (b) South Africa
- (c) Nigeria
- (d) UAE
- 61. Which organization is responsible for conducting the entrance examination for the PM-YASASVI scholarship?
 - (a) National Council of Educational Research and Training (NCERT)
 - (b) National Testing Agency (NTA)
 - (c) Ministry of Education
 - (d) University Grants Commission (UGC)
- **62.** Which among the following is the primary focus of the recently launched BharatGen initiative?
 - (a) To develop indigenous military technologies.
 - (b) To enhance trade relations with the bordering countries.
 - (c) To create a multimodal large language model for Indian languages.
 - (d) To promote traditional art forms amongst younger generation.
- **63.** Which disease has India successfully eliminated as a public health problem, according to the World Health Organisation in October 2024?
 - (a) Tuberculosis
- (b) Malaria
- (c) Trachoma
- (d) Leprosy
- **64.** Which technology will the new satellites in the Space Based Surveillance (SBS) Mission utilize to enhance their capabilities?
 - (a) Solar power only
 - (b) Quantum computing
 - (c) Blockchain technology
 - (d) Artificial Intelligence (AI)



- **65.** Which of the following organization has built the Major Atmospheric Cherenkov Experiment (MACE) telescope?
 - (a) Indian Space Research Organisation (ISRO)
 - (b) National Aeronautics and Space Administration (NASA)
 - (c) Bhabha Atomic Research Centre (BARC)
 - (d) Indian Institute of Astrophysics (IIA)
- **66.** The India's first Demonstration Facility for Biopolymers has been inaugurated in which of the following places?
 - (a) Mumbai
- (b) Pune
- (c) Hyderabad
- (d) Bengaluru
- **67.** Which of the following is the main purpose of the Cali Fund established at COP16?
 - (a) To promote the development of new digital technologies
 - (b) To share profits from nature's genetics through Digital Sequence Information (DSI)
 - (c) To support environmental conservation efforts in the private sector
 - (d) To fund global trade agreements on genetic resources
- **68** Who is the author of the book "Mountain Mammals of the World"?
 - (a) Radhika Raje Gaekwad
 - (b) M.K. Ranjitsinh
 - (c) Jim Corbett
 - (d) Valmik Thapar
- **69.** Which of the following type of geographical feature is Armenia?
 - (a) Island
- (b) Peninsula
- (c) Landlocked country (d) Coastal country
- **70.** Consider the following statements about the Irani Cup:
 - 1. It was introduced in 1960 to commemorate the 25th anniversary of the Ranji Trophy.
 - 2. Mumbai won the 15th Irani Cup title recently.

Which of the above statements is/are correct?

- (*a*) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 71. Which Indian chess players did Arjun Erigaisi defeat on his way to winning the WR Chess Masters Cup?
 - 1. Vidit Gujrathi
- 2. R. Praggnanandhaa
- 3. Viswanathan Anand
- 4. Nihal Sarin

Select the correct codes using below:

- (a) 1 and 2
- (b) 1, 2 and 3
- (c) 2 and 3
- (d) All of the above
- **72.** Where did the 24th National Para-Swimming Championship take place?
 - (a) Maharashtra
- (b) Tamil Nadu
- (c) Goa
- (d) New Delhi
- **73.** Ayhika Mukherjee and Sutirtha Mukherjee are associated with which sport?
 - (a) Badminton
- (b) Table Tennis
- (c) Tennis
- (d) Squash
- **74.** The mascot 'Gudiya' for the Women's Asian Champions Trophy-2024 is inspired by which of the following?
 - (a) Bihar's cultural heritage
 - (b) The state animal of Bihar
 - (c) The state bird of Bihar
 - (d) Traditional Bihari attire
- **75.** Consider the following statements with reference to Moonlight Programme:
 - 1. It was launched by the European Space Agency (ESA).
 - 2. The programme aims to establish a lunar communications and navigation infrastructure.
 - 3. Hundreds of satellites will be part of the Moonlight constellation.

Which of the above statements is/are correct?

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

Answer Key

1. (c)	2. (<i>b</i>)	3. (<i>d</i>)	4. (c)	5. (<i>c</i>)	6. (<i>c</i>)	7. <i>(a)</i>	8. (a)	9. (a)	10. (<i>c</i>)
11. <i>(c)</i>	12. (<i>b</i>)	13. (<i>b</i>)	14. (<i>d</i>)	15. (<i>b</i>)	16. (<i>c</i>)	17. (<i>b</i>)	18. (<i>b</i>)	19. (<i>a</i>)	20. (<i>d</i>)
21. (<i>b</i>)	22. (<i>d</i>)	23. (<i>b</i>)	24. (<i>b</i>)	25. (<i>b</i>)	26. (<i>d</i>)	27. (<i>c</i>)	28. (<i>b</i>)	29. (<i>a</i>)	30. (<i>a</i>)
31. (<i>b</i>)	32. (<i>c</i>)	33. (<i>a</i>)	34. (<i>c</i>)	35. (<i>b</i>)	36. (<i>c</i>)	37. (<i>b</i>)	38. (<i>c</i>)	39. (<i>d</i>)	40. (<i>a</i>)
41. (<i>c</i>)	42. (<i>b</i>)	43. (<i>c</i>)	44. (<i>a</i>)	45. (<i>b</i>)	46. (<i>b</i>)	47. (<i>d</i>)	48. (<i>a</i>)	49. (<i>b</i>)	50. (<i>c</i>)
51. (<i>a</i>)	52. (<i>b</i>)	53. (<i>b</i>)	54. (<i>a</i>)	55. (<i>b</i>)	56. (<i>b</i>)	57. (<i>b</i>)	58. (<i>a</i>)	59. (<i>c</i>)	60. (<i>c</i>)
61. (<i>b</i>)	62. (<i>c</i>)	63. (<i>c</i>)	64. (<i>d</i>)	65. (<i>c</i>)	66. (<i>b</i>)	67. (<i>b</i>)	68. (<i>b</i>)	69. (<i>c</i>)	70. (<i>c</i>)
71. (<i>a</i>)	72. (<i>c</i>)	73. (<i>b</i>)	74. (<i>c</i>)	75. (<i>c</i>)					



Solution

1. (*c*) **Key Concept:** History and Culture

Why in News?

 The Union Cabinet oicially recognised Marathi, Pali, Prakrit, Assamese, and Bengali as Classical Languages, also known as Shastriya Bhasha on October 3, 2024.

Explanation:

- Classical languages hold a special status in India as custodians of ancient knowledge, history, and tradition.
- The government aims to preserve and promote these languages by granting them this status.
- Each language has its roots in ancient civilizations and has evolved over centuries.
- For instance, Tamil is one of the oldest languages with a history that dates back over 2,000 years.
- Sanskrit, often referred to as the mother of many Indian languages, has been a significant medium for ancient texts and scriptures.
- The revised criteria, established in 2024, are as follows:
 - High antiquity of its early texts/recorded history over a period of 1500-2000 years.
 A body of ancient literature/texts, which is considered a heritage by generations of speakers.
 - Knowledge texts, especially prose texts in addition to poetry, epigraphical and inscriptional evidence.
 - The Classical Languages and literature could be distinct from its current form or could be discontinuous with later forms of its offshoots.

2. (b) **Key Concept:** History and Culture

Why in News?

 Indian Army plans month-long commemorative events for the 62nd anniversary of Battle of Walong, including inauguration of key infrastructure projects.

Explanation:

 The Battle of Walong took place during the Sino-Indian War of 1962.

- It took place near the town of Walong in the eastern sector of the conflict, in the present-day Arunachal Pradesh region of India.
- The Chinese government refused to recognize the McMahon Line, which had been established as the boundary between British India and Tibet in 1914.
- The battle began on 21 October 1962, when Chinese forces launched their first attack on Indian positions.
- The Indian defenders, consisting primarily of troops from the 4th Sikh Regiment and the 6th Kumaon Regiment, had prepared defensive positions along the ridges and valleys around Walong.
- Indian forces, despite being outnumbered and under equipped, resisted the Chinese advance for nearly a month.

3. (*d*) **Key Concept:** History and Culture

Why in News?

- Recently, the Indian PM inaugurated the Banjara Virasat Museum in Poharadevi at Washim, Maharashtra.
- The Prime Minister also paid floral tribute to the memorials of Banjara leaders Sant Sevalal Maharaj and Sant Ramrao Maharaj.

Explanation:

• He also played the Nangara, a key musical instrument of the Banjara culture.

About the Banjara Community:

- The Banjara community, often referred to as Gypsies, has a rich and vibrant history rooted in nomadic traditions.
- Derived from the words "Vanaj" (to trade) and "Jara" (to travel), their nomadic lifestyle played a crucial role in connecting villages and providing essential supply.
- Geographical Spread: The Banjara community
 has deep roots in Rajasthan and is now spread
 across various states, known by different names
 such as Lambada or Lambadi in Andhra Pradesh,
 Lambani in Karnataka, Gwar or Gwaraiya in
 Rajasthan, and more.

 Language: Their unique language, "Gorboli" or "Gor mati Boli", falls under the Indo-Aryan language category.

4. (c) **Key Concept:** Economy

Why in News?

The Government has reopened the application window for the Production Linked Incentive (PLI) scheme for white goods.

Explanation:

- Statement 1 is correct. The Production Linked Incentive (PLI) Scheme was indeed launched by the Government of India in April 2020. Its primary aim is to encourage domestic manufacturing in various sectors and reduce dependence on imports. By fostering local production, the scheme intends to make India a global manufacturing hub and strengthen the 'Make in India' initiative.
- Statement 2 is also correct. The PLI scheme provides financial incentives to companies based on the incremental sales of products that are manufactured within India. This means that as companies increase their production and sales of domestically manufactured goods, they become eligible for financial benefits. This incentive structure encourages companies to expand or set up new manufacturing units, enhancing local production capacity and reducing reliance on imported goods.

5. (c) **Key Concept:** Economy

Why in News?

The Food Corporation of India (FCI) has recently selected Coforge Limited as the system integrator (SI) for its digital transformation initiative, the Anna DARPAN Project.

Explanation:

The Food Corporation of India (FCI) recently selected **Coforge Limited** as the system integrator for its digital transformation initiative, the **Anna DARPAN Project**. As the system integrator, Coforge Limited will be responsible for implementing and managing the technology solutions required for the project's objectives, which include optimizing FCI's supply chain management, enhancing eiciency, and enabling data-driven decision-making. This partnership marks a key step in FCI's efforts to modernize its operations through digital transformation.

6. (c) **Key Concept:** Defence and Security **Why in News?**

 The 8th edition of India-Kazakhstan Joint Military Exercise KAZIND-2024 commenced at Surya Foreign Training Node, Auli, Uttarakhand.

Explanation:

- The exercise is scheduled to be conducted from 30th September to 13th October 2024.
- Joint Exercise KAZIND-2024 has been held annually since 2016.
- Last edition of the Joint Exercise was held at Otar, Kazakhstan from 30th October to 11th November 2023.
- The Indian Armed Forces, comprising 120 personnel, are being represented by a battalion of the KUMAON Regiment of Indian Army, along with other arms and services, as well as personnel from Indian Air Force. The Kazakhstan contingent will be represented mainly by personnel from Land Forces and Air Borne Assault Troopers.
- Aim of the Joint Exercise is to enhance joint military capability of both sides to undertake counter terrorism operations in a sub conventional scenario under Chapter VII of the United Nations Charter.

7. (a) **Key Concept:** Defence and Security

Why in News?

 Nirdeshak (Yard 3026), second of four Survey Vessel (Large) ships, steered by the Indian Navy's Warship Design Bureau and being built at Garden Reach Shipbuilders & Engineers (GRSE), Kolkata was delivered to the Indian Navy on 08 Oct 24.

Explanation:

- The first ship of the class, INS Sandhayak, was commissioned on 03 Feb 24.
- The ship aims at full scale coastal and deepwater hydrographic survey of port/harbor approaches and determination of navigational channels/routes.
- The ship will also collect oceanographic and geophysical data for defence and civil applications.
- With a displacement of about 3400 tons and overall length of 110 meters,
- Powered by two diesel engines, the ship can achieve speeds in excess of 18 knots.

8. (a) **Key Concept:** Defence and Security

Why in News?

 INS Trikand and Dornier Maritime Patrol Aircraft, participated in the Indo-Oman bilateral naval exercise Naseem-Al-Bahr with the Royal Navy of Oman Vessel Al Seeb off Goa from 13 to 18 October 24.

Explanation:

 The exercise was conducted in two phases: with harbour phase from 13 to 15 October 24, followed by the sea phase.



- As part of harbour activities, personnel from both Navies engaged in professional interactions, including Subject Matter Expert Exchanges and planning conferences.
- During the sea phase of the exercise conducted from 16 to 18 Oct 24, both ships carried out various evolutions, including gun firings at surface inflatable targets, close- range anti-aircraft firings, manoeuvres, and Replenishment at Sea Approaches (RASAPS). Oman is the first Gulf country with which all three wings of India's defense forces—Army, Navy, and Air Force—hold joint exercises.

9. (a) **Key Concept:** Defence and Security **Why in News?**

 The Opening Ceremony of MALABAR 2024 under the aegis of Eastern Naval Command was held onboard Indian Naval Ship Satpura at Visakhapatnam on 09 Oct 24.

Explanation:

- MALABAR, which was initiated in 1992 as a bilateral exercise between India and the US, gained further traction as a significant maritime engagement, with Japan and Australia joining in subsequently.
- The Commanders of all participating navies acknowledged the importance of Ex MALABAR in enhancing understanding, collaboration and engagement to address common maritime challenges and to create cooperative framework.
- The exercise will be conducted in two distinct phases both at Harbour and at Sea.
- MALABAR 2024 will witness live weapon firings, complex surface, anti-air and antisubmarine warfare drills and joint manoeuvres.

10. (c) **Key Concept:** Defence and Security

Why in News?

 The 31st edition of the Singapore India Maritime Bilateral Exercise (SIMBEX) is scheduled from 23 to 29 Oct 2024, in the Eastern Naval Command at Visakhapatnam.

Explanation:

- Republic of Singapore Navy Ship RSS Tenacious with embarked helicopter, arrived at Visakhapatnam on 23 October 24 for participating in SIMBEX2024.
- SIMBEX, which began as 'Exercise Lion King' in 1994, has since evolved into one of the most significant bilateral maritime collaborations between the Indian Navy and the Republic of Singapore Navy (RSN).
- The exercise will be conducted in two phases
 the Harbour Phase from 23 to 25 October at

- Visakhapatnam and the Sea Phase from 28 to 29 October in the Bay of Bengal.
- The opening ceremony to mark the beginning of SIMBEX24 will be conducted on 24 Oct 24, onboard INS Shivalik and will be attended by participating units of the Eastern Fleet and the Singapore Navy.

11. (*c*) **Key Concept:** Defence and Security **Why in News?**

• 'Abhay', the seventh Anti-Submarine Warfare Shallow Water Craft (ASW SWC) being built by M/s GRSE for Indian Navy, was launched on 25 Oct 24 at M/s L&T, Kattupalli.

Explanation:

- The Launch Ceremony was presided over by VAdm Rajesh Pendharkar, FOC-in-C (East).
- The contract for building eight ASW SWC ships was signed between MoD and Garden Reach Shipbuilders & Engineers (GRSE), Kolkata in Apr 19.
- Arnala class of ships will replace the in-service Abhay class ASW Corvettes of Indian Navy and are designed to undertake anti-submarine operations in coastal waters, Low Intensity Maritime Operations (LIMO) and Mine Laying Operations.

12. (*b*) **Key Concept:** Defence and Security **Why in News?**

 The Indian Army is set to host the second edition of its flagship international seminar, the Chanakya Defence Dialogue, on October 24 and 25 2024 at the Manekshaw Centre, New Delhi.

Explanation:

- Themed "Drivers in Nation Building: Fuelling Growth Through Comprehensive Security", this high-profile event will facilitate vital discussions on integrating security dynamics within national and international policymaking, and aims to craft visionary strategies for sustainable and inclusive growth.
- The two-day event will bring together an exceptional group of policymakers, strategic thinkers, academics, defence personnel, veterans, scientists, and SMEs from India and abroad, with prominent speakers from the United States, Russia, Israel, and Sri Lanka.

13. (b) **Key Concept:** Economy

Why in News?

The Food Corporation of India (FCI) has recently selected Coforge Limited as the system integrator (SI) for its digital transformation initiative, the Anna DARPAN Project.



Explanation:

The primary aim of the Anna DARPAN Project by the Food Corporation of India (FCI) is to optimize and enhance supply chain management processes across different levels within the organization. By implementing this project, FCI intends to improve overall eiciency and productivity, allowing for better management of food storage and distribution. Key components of the project include data-driven decision- making, system integration, and a mobile-first approach to accessibility. This initiative is focused on making FCI's operations more streamlined, responsive, and effective, especially in managing India's public food distribution system.

14. (d) **Key Concept:** Places in News

Why in News?

Recently, Bihar's first dry port also known as inland container depot (ICD) inaugurated in Bihta near Patna.

Explanation:

- Bihar's first dry port also known as inland container depot (ICD) inaugurated in Bihta near Patna.
- Dry Ports provide a logistics facility away from a seaport or airport for cargo handling, storage, and transportation.
- Significance of Bihta Dry Port:
 - Exports: It will boost exports, mainly agrobased, garments and leather products from Bihar.
 - Improved Logistics: It will streamline cargo handling and transportation, lowering transportation costs, and securing storage and handling.
 - Benefits to adjoining states: Catering to entire eastern India.
- It is connected by rail to major gateway ports of Kolkata,
- Haldia, Visakhapatnam, Nhava Sheva, & major national and international trade routes.

15. (b) Key Concept: Places in News

Why in News?

Recently, India and Pakistan have renewed the agreement on the Sri Kartarpur Sahib Corridor for another five years.

Explanation:

- India and Pakistan have renewed agreement on Sri Kartarpur Sahib Corridor for next five years.
- Agreement originally signed in 2019 was valid for 5 years.
- About Sri Kartarpur Sahib corridor:
 - It facilitates the visit of pilgrims from India to Gurdwara Darbar Sahib Kartarpur, Narowal in Pakistan without a visa.

- Guru Nanak, founder of Sikhism, spent the last 18 years of his life at Kartarpur (located at west bank of river Ravi).
- Corridor provides a 4.5-kilometer route from the Indian border at Dera Baba Nanak in Punjab to Kartarpur.

16. (c) **Key Concept:** International Relations

Why in News?

India and Uzbekistan recently signed a Bilateral Investment Treaty (BIT) in Tashkent on 27 September 2024.

Explanation:

India and Uzbekistan recently signed a Bilateral Investment Treaty (BIT) in Tashkent, aimed at enhancing investor confidence and promoting economic cooperation between the two nations. Key Highlights of the Bilateral Investment Treaty (BIT)

 Purpose: The BIT aims to provide appropriate protection to investors from both countries, ensuring a minimum standard of treatment and non-discrimination.

Investor Protections:

- Assures protection against expropriation. Establishes an independent forum for dispute resolution through arbitration.
- Promotes transparency and facilitates the transfer of funds and compensation for losses.
- Economic Cooperation: The signing reflects a mutual commitment to creating a robust investment environment, expected to pave the way for increased bilateral investments that will benefit businesses and economies in both countries.

17. (b) Key Concept: International Relations

Why in News?

In October 2024, Maldives President Mohamed Muizzu concluded a four-day state visit to India, where he emphasized New Delhi's role as a valued partner in the region.

Explanation:

Key Highlights from the Visit:

- Five pacts were signed during the meeting, including agreements on a bilateral currency swap, training of judicial oicers, prevention of corruption, law enforcement training, and youth and sports cooperation.
- Strengthening Bilateral Relations: President Muizzu's visit focused on enhancing bilateral relations, with discussions centered on trade, investment, and security cooperation.
- **Economic Cooperation:** The two nations explored avenues for **increased economic**



- collaboration, including infrastructure development and tourism, which are vital for the Maldives' economy.
- India provided Treasury bills (T-bill) worth USD 100 million to address its urgent financing needs. India extended a USD 400 million and Rs 30 billion bilateral currency swap agreement to further support the Maldives in managing its financial diiculties.
- Security Partnerships: Given regional security concerns, particularly in the Indian Ocean, both leaders discussed strategies to bolster maritime security and counter-terrorism efforts.
- Both sides will collaborate on renewable energy and energy eiciency projects to enable the Maldives to meet its climate goals.
- Cultural Ties: The visit also highlighted the cultural connections between India and the Maldives, fostering goodwill and mutual understanding.
- Both sides acknowledged the importance of completing the Maldives National Defence Force (MNDF) 'Ekatha' harbour project at Uthuru Thila Falhu (UTF), funded by India, which will boost MNDF's operational capabilities.
- President Muizzu's acknowledgment of India as a "valued partner" reflects the Maldives' strategic positioning in South Asia and its commitment to maintaining strong ties with its closest neighbors.

18. (b) **Key Concept:** Important Days

Why in News?

Recently, India celebrated the 92nd Indian Air Force Day on October 8, 2024.

Explanation:

- As India prepares to celebrate the **92nd Indian** Air Force Day on October 8, 2024, the nation honors the exceptional dedication and sacrifices of its air warriors.
- The theme for this year, "Bhartiya Vayu Sena: Saksham, Sashakt, Atmanirbhar" (Potent, Powerful, and Self-Reliant), reflects the IAF's vision for self-suiciency in defense capabilities and operational excellence.
- **Historical Journey of the Indian Air Force:**
 - The Indian Air Force was founded on October 8, 1932, originally serving as an auxiliary air force under British rule.
 - It officially began operations with its first flight on April 1, 1933.
 - Despite starting with limited resources and personnel, the IAF has undergone remarkable

- growth and transformation over the past nine
- The motto of the Indian Air Force (IAF) is "Nabha Sparsham Deeptam" which translates to "Touch the sky with glory".
- The motto comes from the eleventh chapter of the Bhagavad Gita, where Lord Krishna describes his form as reaching the sky with glory.
- The IAF's goal is to use aerospace power to defend the nation.
- The IAF's air warrior code includes the following principles:
 - Excellence: Air warriors pursue excellence in everything they do.
 - Honesty: Air warriors are honest and live up to the trust placed in them.
 - Safety and welfare: Air warriors lead with concern for the safety and welfare of their subordinates.

19. (a) **Key Concept:** Important Days

Why in News?

Recently, World Mental Health Day is observed on October 10.

Explanation:

- World Mental Health Day is observed annually on October 10 and was first established in 1992 by the World Federation for Mental Health (WFMH).
- This global event aims to raise awareness about mental health issues and mobilize support for mental health care around the world.
- **Objectives:**
 - The primary goal of this day is to **increase** awareness of mental health issues globally and to mobilize efforts in support of mental health.
 - It serves as a platform for stakeholders working in mental health to discuss their work and identify what more needs to be done to make mental health care accessible to all.
- Theme for 2024: The theme for 2024 is "Mental Health at Work", emphasizing the vital link between mental health and the workplace.

20. (*d*) **Key Concept:** Environment and Geography Why in News?

Recently, NASA's James Webb Space Telescope detected carbon dioxide and hydrogen peroxide on the surface of Pluto's largest moon, Charon.

Explanation:

The James Webb Space Telescope recently made a groundbreaking discovery, detecting



solid carbon dioxide and hydrogen peroxide on the frozen surface of Charon, Pluto's largest moon.

 This marks the first time carbon dioxide is observed on Charon, a spherical body approximately 750 miles in diameter.

• Origin of Charon:

- The discovery may help scientists understand how Charon came to be and the composition of other distant moons and planets.
- Charon is the largest moon in the solar system relative to the planet it orbits. It's about half the diameter and an eighth the mass of Pluto, a dwarf planet in the Kuiper Belt.

21. (*b*) **Key Concept:** Environment and Geography **Why in News?**

Recently, the National Tiger Conservation Authority (NTCA) has approved the development of Kaimur Wildlife Sanctuary (KWS) as Bihar's second tiger reserve.

Explanation:

- National Tiger Conservation Authority's (NTCA) has given approval to develop Kaimur Wildlife Sanctuary (KWS) as Bihar's second tiger reserve after Valmiki Tiger Reserve.
- Key Facts about Kaimur Wildlife Sanctuary (KWS):
 - New Tiger Reserve: Approved by the National Tiger Conservation Authority (NTCA) to become Bihar's second tiger reserve, after Valmiki Tiger Reserve.
 - NTCA: A statutory body under the Wildlife (Protection) Act of 1972, responsible for tiger conservation efforts in India.
- About Kaimur Wildlife Sanctuary:
 - Location: Situated on the Kaimur Hills plateau between the Son River (south) and Karmanasa River (west).
 - Region: Spans parts of the Central Highlands, including the Satpura-Maikal hills and Vindhya-Bagelkhand hills, as well as the Chota Nagpur Plateau.

22. (*d*) **Key Concept:** Environment and Geography **Why in News?**

Recently, the auroras were captured at India's highest observatory in Hanle, Ladakh.

Explanation:

- Auroras were recently captured at India's highest observatory in Hanle, Ladakh.
- Significance: This rare phenomenon in Ladakh highlights the observatory's capacity to capture unique atmospheric events.

• About Auroras:

• Description: Auroras are multicolored lights visible in the thermosphere layer of the atmosphere. They display vibrant hues, often green, pink, and purple, depending on the gases and the altitude of the reaction.

• Geographic Occurrence:

- Frequent at high latitudes (near the poles) and are common in regions around the Arctic and Antarctic.
- Less frequent in **mid-latitudes** and rare in equatorial areas.

Types:

- In the Northern Hemisphere: Known as Aurora Borealis or the "Northern Lights".
- In the Southern Hemisphere: Known as Aurora Australis or the "Southern Lights".
- Cause: Result from the interaction between the solar wind and Earth's magnetic field.
 Charged particles from the Sun collide with oxygen and nitrogen atoms in the atmosphere, releasing energy as colorful lights.

23. (*b*) **Key Concept:** Environment and Geography **Why in News?**

Recently, the discovery of the Trojan asteroid 2019 UO14 for Saturn confirmed that all four giant planets in our solar system have Trojan asteroids.

Explanation:

- The discovery of the Trojan asteroid 2019 UO14 for Saturn confirmed that all four giant planets in our solar system have Trojan asteroids.
- Trojan asteroids are **celestial bodies that** occupy a stable Lagrange Point in a planet's orbit around the sun.
- The discovery of 2019 UO14 for Saturn confirmed that all four giant planets in our solar system have Trojan asteroids.

• Details about 2019 UO14:

- 2019 UO14 is about 13 kilometres across, similar in size to Deimos, the smaller of Mars' two moons.
- It takes about 30 years to revolve around the sun and is located about 60 degrees ahead of Saturn.
- 2019 UO14 is likely to have an unstable orbit because of the gravitational influence of Saturn and Jupiter.
- Researchers estimate that 2019 UO14 has been a Trojan for about 2,000 years and will remain so for another 1,000 years.



• Other Trojan asteroids:

 Mercury and Venus are the only two major planets without any known associated Trojans.

24. (*b*) **Key Concept:** Environment and Geography **Why in News?**

Recently, India's first ever Great Indian Bustard hatched through Artificial Insemination.

Explanation:

- Artificial insemination of the Great Indian Bustard was achieved at the National Breeding Centre in Jaisalmer, Rajasthan, under the Bustard Recovery Program.
- Bustard Recovery Program:
 - Initiation: Started in 2016 for a period of five years and later extended from 2021 to 2024.
- Objectives:
 - Conservation Breeding: Focuses on increasing the population of GIBs in captivity.
 - Capacity Building & Advocacy: Raises awareness among stakeholders and policymakers about bustard conservation.
 - Bustard-Friendly Land Use: Encourages land- use practices that support bustard habitats.
 - Great Indian Bustard (Godawan) are mostly found in Rajasthan and Gujarat with small populations in Maharashtra, Karnataka, and Andhra Pradesh.

25. (b) **Key Concept:** Economy

Why in News?

The Central government has recently appointed new members to the MPC with immediate effect.

Explanation:

The primary function of the Monetary Policy Committee (MPC) is to set the benchmark policy rate, or repo rate, which is the rate at which the Reserve Bank of India (RBI) lends to commercial banks. By adjusting the repo rate, the MPC aims to control inflation and stabilize the economy within a specified target range. This function is critical to the inflation-targeting framework adopted by India, where the MPC uses the repo rate to influence borrowing costs, money supply, and overall demand in the economy to keep inflation under control. Other aspects, like setting the cash reserve ratio, foreign exchange rates, and issuing banking licenses, fall under different functions and authorities within the RBI.

26. (d) **Key Concept:** Economy

Why in News?

 The Delhi Cabinet approved a 50% hike in MLA-LAD funds, increasing the annual allocation for legislators from $\overline{<}10$ crore to $\overline{<}15$ crore.

Explanation:

The MLA-LAD (Member of Legislative Assembly Local Area Development) Fund is specifically intended for public infrastructure and community development projects within the MLA's constituency.

- Modelled after MPLAD: Based on a similar scheme for MPs (Members of Parliament), it provides funding for local development.
- MLAs do not directly receive funds: They recommend projects for their constituencies under the scheme.

Purpose of the Scheme

- The scheme focuses on durable infrastructure works, such as:
 - Repairing roads.
 - Building community centres.
 - Developing parks.
 - Installing streetlights.
 - Laying sewer lines in colonies.

27. (c) **Key Concept:** Economy

Why in News?

An online platform to facilitate and manage the migration of Indian workers seeking employment abroad.

Explanation:

The e-Migrate Portal is designed to ensure safe and legal migration for Indian workers seeking employment abroad. It aligns with UNSDG Goal 10, which focuses on reducing inequalities. The goal emphasizes the need to reduce inequality within and among countries, including addressing the challenges faced by migrant workers in terms of their rights, safety, and access to opportunities. By promoting safe migration practices and supporting Indian workers with access to information, documentation, and jobs abroad, the e-Migrate Portal directly contributes to this objective.

28. (b) **Key Concept:** Economy

Why in News?

Following the beginning of the war in **Ukraine**, **Russia** was expelled from the SWIFT system, prompting calls for alternative payment systems.

Explanation:

The **SWIFT system** facilitates secure communication for financial transactions between banks, primarily enabling fund transfers and other financial messages. It standardizes communication protocols to ensure reliable and eicient cross-border transactions. SWIFT itself does not hold or transfer assets, nor does it handle physical currency or operate in stock markets.



29. (a) Key Concept: Places in News

Why in News?

Recently, The first batch of pilgrims viewed Mount Kailash (abode of Lord Shiva) from Old Lipulekh pass.

Explanation:

- About Lipulekh Pass:
 - Location: International Mountain pass, above Kalapani valley, forming a tri-junction between India, Nepal, and TAR (China).
 - Situated in Vyas valley, Pithoragarh district, Uttarakhand inhabited by Bhutiya people.
 - Significance: Ancient trade and pilgrimage route.
 - Closed in 1962 by India fearing Chinese incursions and was reopened in 2020.

30. (a) **Key Concept:** Important Days

Why in News?

Recently, These days were celebrated in the month of October 2024.

Explanation:

- United Nations Day:
 - The world observes the **United Nations Day** every year on **October 24, 2024**, as on this day, the United Nations Charter came into force in 1945.
 - Its mission for global peace and development.
- Lal Bahadur Shastri Jayanti:
 - Lal Bahadur Shastri Jayanti is celebrated on October 2nd each year, and in 2024 it marks the 120th birth anniversary of the third Prime Minister of India.
 - Shastri was born in Mughalsarai, Uttar Pradesh on October 2, 1904.
 - Role in Freedom Struggle: Highlights his active participation in key movements like the Non-Cooperation Movement and Quit India Movement.
 - Leadership During Indo-Pak War: Discusses his famous slogan "Jai Jawan, Jai Kisan" and his efforts to protect India's sovereignty during the 1965 war.
- National Unity Day:
 - National Unity Day is celebrated in India every October 31st to honor the birth anniversary of Sardar Vallabhbhai Patel, a key figure in India's independence movement and its first Deputy Prime Minister and Home Minister. Known as the "Iron Man of India".
- National Postal Day:
 - Every year on October 10th, India commemorates National Postal Day,

a significant observance that marks the establishment of the Indian Postal Service. This annual celebration serves as a **tribute** to the vast network of postal workers and the crucial role they play in connecting the nation.

31. (*b*) **Key Concept:** Index and reports

Why in News?

Recently, Global Hunger Index (GHI) 2024 report was released.

Explanation:

- The Global Hunger Index (GHI) is an annual, peer-reviewed report by Concern Worldwide and Welthungerhilfe that measures and tracks hunger levels across the world.
- The **2024 GHI report**, the 19th edition, evaluates hunger across **127 countries** using a score from **0 to 100**, where 0 represents no hunger and 100 represents extreme hunger.
- India's 2024 GHI Performance:
 - Rank: 105th out of 127 countries, categorized under "serious" hunger levels.
 - Score: 27.3, indicating severe hunger.

32. (c) **Key Concept:** Index and reports

Why in News?

Recently, Hindustan Aeronautics Limited (HAL) was upgraded to Maharatna status and becoming the 14th Central Public Sector Enterprise (CPSE).

Explanation:

- Hindustan Aeronautics Limited (HAL) was upgraded to Maharatna status on October 12, becoming the 14th Central Public Sector Enterprise (CPSE) to attain this prestigious classification.
- This elevation enhances HAL's financial and operational autonomy, allowing it to invest up to 15% of its net worth in projects and up to ₹5,000 crore in foreign ventures without needing government approval.
- Following the announcement, HAL's stock price rose by 1.42%, trading at ₹4,510.
- Key Details on HAL's Maharatna Status:
 - Approval Process: Approved by Finance Minister Nirmala Sitharaman after recommendations from the Inter-Ministerial Committee and the Apex Committee.
 - Financial Criteria: HAL qualified by achieving an average annual turnover above ₹25,000 crore, a net worth of over ₹15,000 crore, and an annual net profit exceeding ₹5,000 crore over the past three years.



33. (a) **Key Concept:** Index and reports

Why in News?

Recently, the Nature Conservation Index(2024) was released.

Explanation:

- The 2024 Nature Conservation Index (NCI) ranked India 176th out of 180 countries, with a score of 45.5 out of 100.
- This placed India among the five worst performers, along with Kiribati, Turkey, Iraq, and Micronesia.
- The NCI is an assessment tool that evaluates conservation efforts based on four parameters: land management, threats to biodiversity, capacity and governance, and future trends.

34. (*c*) **Key Concept:** International Affairs

Why in News?

Recent military actions between Israel and Hezbollah intensified in October 2024, drawing attention to various militant groups in the Middle East.

Explanation:

- Israel has launched a "limited, localized, and targeted" ground operation against Hezbollah, following a series of airstrikes that have reportedly resulted in over 1,000 fatalities in Lebanon since early October 2023. These strikes were a response to Hezbollah's increased rocket attacks on northern Israel, which began after Hamas's unprecedented assault on Israel on October 7, 2023
- In retaliation, Hezbollah has fired thousands
 of rockets into Israeli territory, marking one
 of the most significant escalations since the 2006
 Lebanon War. The group has claimed to possess
 advanced military capabilities, including a large
 arsenal of missiles and drones.
- About Hezbollah: This Shiite Muslim political party and militant group has been a significant force in Lebanon since its formation during the Lebanese Civil War. It operates as both a political entity and a military organization and is heavily supported by Iran. Hezbollah's military capabilities have been bolstered by its involvement in the Syrian Civil War, where it gained combat experience.

35. (b) **Key Concept:** International Affairs

Why in News?

Cabinet has recently approved India to join the International Energy Eiciency Hub.

Explanation:

 India's recent membership to the International Energy Eiciency Hub marks a significant step

- in its commitment to enhancing energy eiciency and sustainable development.
- The Bureau of Energy Eiciency (BEE) has been designated as the implementing agency for India's participation in the Hub. BEE will facilitate India's involvement in Hub activities and ensure alignment with national energy eiciency goals.
- The Union Cabinet, chaired by Prime Minister Narendra Modi, approved the signing of a Letter of Intent, enabling India to join this global platform dedicated to promoting energy. eiciency.
- The Hub was created in 2020 as a successor to the International Partnership for Energy Eiciency Cooperation (IPEEC), which India previously participated in.
- It aims to foster collaboration among member countries, share knowledge, best practices, and innovative solutions related to energy efficiency.
- Membership: As of now 2024, the Hub includes 16 countries: Argentina, Australia, Brazil, Canada, China, Denmark, the European Commission, France, Germany, Japan, Korea, Luxembourg, Russia, Saudi Arabia, the United States, and the United Kingdom.
- Collaboration Opportunities: Membership provides India access to a network of experts and resources that can enhance domestic energy eiciency initiatives.
- Climate Change Contribution: By promoting energy-eicient technologies and practices, India can contribute significantly to global climate change mitigation efforts.

36. (*c*) **Key Concept:** Polity

Why in News?

The Union Cabinet has recently approved the recognition of five additional languages as "classical", significantly expanding India's list of culturally significant tongues.

Explanation:

The newly designated classical languages are:

- Marathi
- Bengali
- Assamese
- Pali
- Prakrit
- This decision, announced on October 3, 2024, nearly doubles the number of classical languages in India from six to eleven, with the previously recognized languages being Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia



• Background and Criteria: The inclusion of these languages follows a revision of the criteria for classical language status. Previously, a language had to demonstrate an "original literary tradition", which was deemed challenging to prove.

37. (b) **Key Concept:** Places in News

Why in News?

Recently, Mormugao Port Authority is recognized globally as an incentive provider on the Environmental Ship Index (ESI) platform.

Explanation:

- Mormugao Port Authority is recognized globally as an incentive provider on the Environmental Ship Index (ESI) platform.
- ESI has been published by the International Association of Ports and Harbors (IAPH) since 2011.
- It identifies ships that perform better in reducing air emissions than required by the current emission standards of the International Maritime Organization (IMO).

• About Mormugao Port:

- It's a major port of India located in Goa.
- India's first port to introduce Green Ship Incentives (Harit Shrey scheme) through the ESI.
- Harit Shrey scheme (2023): Incentivises ships with favourable ESI scores; and "it aims towards decarbonization and green shipping".

38. (c) **Key Concept:** Important Days

Why in News?

Recently, Infantry Day is celebrated in India on October 27.

Explanation:

- Infantry Day is celebrated annually in India on October 27 to honour the contributions of the infantry in defending the nation's sovereignty and security.
- Infantry Day celebrates the sacrifice, courage, and resolve of India's infantry soldiers, recognizing their pivotal role in preserving the nation's integrity and inspiring future generations of the armed forces.

Historical Context:

- October 27, 1947: The 1st Battalion of the Sikh Regiment arrived in Srinagar, marking a decisive moment in India's defense of Jammu and Kashmir.
- This operation helped halt Pakistan's incursion, safeguarding the territory and its people.

• "Queen of the Battle": The infantry is often called the "Queen of the Battle", symbolizing its central role in military operations and its valorous contributions throughout history.

39. (*d*) **Key Concept:** Person in news

Why in News?

• Mithun Chakraborty received the Dadasaheb Phalke Award, India's highest film honour, at a ceremony in New Delhi's Vigyan Bhawan.

Explanation:

- The 70th National Awards were presented by President Droupadi Murmu.
- The Dadasaheb Phalke Award is the country's highest film honour and is given by the government.
- Earlier this year, Mithun Chakraborty was announced as the recipient of the Padma Bhushan, India's third-highest civilian honour.

40. (*a*) **Key Concept:** Awards and Honors

Explanation:

- The Nobel Prize in Physiology or Medicine for 2024 has been awarded to Victor Ambros and Gary Ruvkun for the discovery of microRNA and its role in post-transcriptional gene regulation.
- The Royal Swedish Academy of Sciences awarded the 2024 Nobel Prize in Physics to John J. Hopfield and Geoffrey E. Hinton for their foundational contributions to machine learning through artificial neural networks.
- The 2024 Nobel Prize for Chemistry has been awarded to David Baker, Demis Hassabis, and John Jumper on October 9, 2024, in Stockholm, Sweden.
- The Royal Swedish Academy of Sciences on October 14 awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2024 to three US-based economists
 — Daron Acemoglu, Simon Johnson, and James A Robinson — "for studies of how institutions are formed and affect prosperity".

41. (c) **Key Concept:** Awards and Honors

Why in News?

• Han Kang, the first South Korean Nobel Prize winner for Literature, hopes to maintain normal life despite historic honour.

Explanation:

- The short story writer and novelist is best known overseas for her Man Booker Prize- winning "The Vegetarian", her first novel translated into English.
- Han, 53, is the first South Korean writer and 18th woman to win the Nobel Literature Prize.



42. (*b*) **Key Concept:** Awards and Honors

Why in News?

 Japanese atomic bomb survivor movement Nihon Hidankyo won the Nobel Peace Prize in recognition of the organization's efforts to achieve a world free of nuclear weapons.

Explanation:

- The awards committee said that the grassroots movement had "worked tirelessly" to raise awareness about the catastrophic humanitarian consequences of using nuclear weapons.
- A presentation of the Nobel Prizes will take place in Oslo, Norway on Dec. 10, a date which marks the anniversary of the death of Swedish inventor and philanthropist Alfred Nobel.
- Iranian human rights activist Narges Mohammadi received the Nobel Peace Prize in 2023 for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all.

43. (c) **Key Concept:** Sports

Why in News?

 India's premier recurve archer Deepika Kumari won her fifth silver medal at the World Cup Final after losing the summit clash 0-6 to China's Li Jiaman in Mexico.

Explanation:

- Returning to the World Cup Final after three years following the birth of her daughter in December 2022, four-time Olympian Deepika was seeded third in the eight-archer field.
- She had a smooth run through the semifinals but probably the pressure of the gold medal match got to her against fourth-seed Li Jiaman, a team silver medalist from the Paris Olympics.
- It was Deepika's ninth appearance at the World Cup Final where she also bagged a bronze.

44. (a) **Key Concept:** Economy

Why in News?

Digital platform launched by Saudi Arabia.

Explanation:

The **Musaned platform** aims to protect the rights of foreign workers in Saudi Arabia, especially in the domestic work sector, by tracking financial transactions to ensure that employers pay wages according to the contract. It helps monitor compliance with wage obligations and also features other services like dispute resolution and contract management. It is not primarily a job search or multi-currency salary management platform.

45. (*b*) **Key Concept:** Economy

Why in News?

Recently the Department of Social Justice and Empowerment (DoSJE) and the National Legal Services Authority (NALSA) signed an MoU.

Explanation:

The SARTHIE 1.0 initiative is a collaborative effort between the **Department of Social Justice and Empowerment (DoSJE)** and the **National Legal Services Authority (NALSA)**. The MoU between these two entities was signed to enhance the legal support and accessibility to social welfare schemes for marginalized communities, such as Scheduled Castes (SCs), Other Backward Classes (OBCs), senior citizens, transgender persons, and victims of substance abuse. The initiative's goal is to empower these vulnerable groups by improving their access to legal assistance and relevant welfare schemes.

46. (b) **Key Concept:** Polity

Why in News?

The Ministry of Education organized a two-day Strengthening Teaching-Learning and Results for States (STARS) knowledge-sharing workshop in Bhopal, Madhya Pradesh, from September 30 to October 1, 2024.

Explanation:

- The workshop focused on School-to-Work Transition and Strengthening the Assessment System and aimed to enhance educational outcomes and facilitate collaboration among states in India.
- The workshop was inaugurated by Shri Uday Pratap Singh, Minister of Transport and School Education in Madhya Pradesh.
- Focus Areas: The workshop concentrated on two main themes:
 - School-to-Work Transition: Discussions included bridging the gap between education and employment, with insights from various speakers on integrating skill development into the educational framework.
 - Strengthening Assessment Systems: The second day focused on improving assessment models to enhance student outcomes, featuring presentations on innovative practices in educational assessment.

47. (*d*) **Key Concept:** Polity

Why in News?

Recently, the Supreme Court of India **unveiled a new** Lady Justice statue, commissioned by Chief Justice D.Y. Chandrachud on October 17, 2024.

Explanation:

This marks a departure from traditional representations of Lady Justice.



Key Features of the New Statue

- Design Changes: The new statue is depicted without a blindfold, symbolizing that the law is aware and sees all individuals equally, rather than being blind to their circumstances, promoting the idea of equality in justice.
 - This contrasts with the traditional image where Lady Justice is blindfolded, representing impartiality and the ideal that justice should be administered without bias.
- Symbolism: In place of the sword, which traditionally represented the authority and punitive power of the law, the new statue holds a copy of the Indian Constitution.
 - This change signifies a shift towards constitutional values and emphasizes justice as rooted in rights and equality rather than punishment.
- Cultural Representation: The statue is clothed in a saree, reflecting Indian cultural identity and moving away from Western depictions of Lady Justice.
 - This design choice aligns with efforts to make the judiciary more representative of Indian society.

48. (a) **Key Concept:** Polity

Why in News?

 Prime Minister Narendra Modi launched the Karmayogi Saptah, also known as National Learning Week, on October 19, 2024, at the Dr. Ambedkar International Centre in New Delhi.

Explanation:

- This initiative is part of the broader Mission Karmayogi, which was introduced in September 2020 to enhance the capabilities of civil servants in India.
- The primary goal of Karmayogi Saptah is to **foster continuous learning among government employees**, ensuring they are equipped with the necessary skills to meet evolving governance demands and contribute effectively to national development.
- National Learning Week (NLW) will provide fresh impetus towards individual and organisational capacity development for Civil Servants creating a "One Government" message by creating a unified approach aligning everyone with national goals and promoting lifelong learning.
- The iGOT platform, integral to Mission Karmayogi, has seen significant engagement, with over 4 million government employees registered and more than 1.5 crore certifications issued across various courses.

49. (b) **Key Concept:** Polity

Why in News?

• The **Gram Panchayat-Level Weather Forecasting initiative** was recently launched by the Indian government in October 2024.

Explanation:

- The Gram Panchayat-Level Weather Forecasting initiative was recently launched by the Indian government to enhance climate resilience and support rural communities.
- The initiative is a collaborative effort involving:
 - The Ministry of Panchayati Raj (MoPR).
 - The India Meteorological Department (IMD).
 - The Ministry of Earth Sciences (MoES).
- Objective: To provide localized weather forecasts at the gram panchayat level, enabling farmers and rural communities to make informed decisions regarding agricultural activities and disaster preparedness.

Features

- Localized Forecasts: For the first time, over 2.5 lakh gram panchayats will have access to localized weather information, including:
 - Daily updates on temperature, rainfall, wind speed, cloud cover, and relative humidity.
 - A five-day weather forecast with hourly updates.
 - Forecasts include critical weather parameters such as: Temperature, Rainfall, Wind speed, Cloud cover.

50. (c) **Key Concept:** Government Schemes

Why in News?

Recent government data under the NAMASTE scheme reveals significant insights into the demographics of manual scavengers and sanitation workers in India.

Explanation:

- The National Action for Mechanized Sanitation Ecosystem or the NAMASTE Scheme is a testament to the Government's human-centric approach where no sanitation workers have to manually engage in the hazardous task of sewer and septic tank cleaning operations.
- It is jointly initiated by the Ministry of Social Justice and Empowerment and the Ministry of Housing and Urban Affairs.
- The NAMASTE scheme will be implemented by the National Safai Karamcharis Finance and Development Corporation (NSKFDC).
- Period: Three years from FY 2023-24 to FY 2025-26 with the cost of 349.73 crores.



51. (a) **Key Concept:** Government Schemes

Why in News?

 The Ministry of Corporate Affairs has recently launched the Prime Minister's Internship Scheme, which was announced during the Union Budget 2024.

Explanation:

- The Prime Minister's Internship Scheme is an initiative aims to provide internship opportunities to one crore youth across India, enhancing their employability and bridging the gap between education and practical work experience.
- Companies participating in this pilot were selected based on their corporate social responsibility (CSR) spending over the last three years, ensuring participants are placed with socially and ethically responsible organizations.
- The scheme was **officially launched on October 3, 2024**, with registrations opening for candidates on October 12, 2024.
- Over the next five years, the scheme aims to create internships in the top 500 companies, targeting a total of 1 crore internships.
- Interns will receive a monthly stipend of ₹4,500 from the government, supplemented by an additional ₹500 from the companies through their Corporate Social Responsibility (CSR) funds.

52. (*b*) **Key Concept:** Government Schemes **Why in News?**

The Anusandhan National Research Foundation (ANRF) recently launched two significant initiatives aimed at enhancing India's research landscape: the Prime Minister Early Career Research Grant (PMECRG) and the Mission for Advancement in High-Impact Areas - Electric Vehicle (MAHA-EV) Mission on October 14, 2024.

Explanation:

The MAHA-EV Mission focuses on developing key technologies in the electric vehicle sector to reduce import dependency and foster domestic innovation. Its main objectives include:

- **Focus Areas:** The mission targets three major technology verticals:
 - Tropical EV Batteries and Battery Cells
 - Power Electronics, Machines, and Drives (PEMD)
 - Electric Vehicle Charging Infrastructure
- The MAHA-EV initiative aligns with India's vision of Atmanirbhar Bharat, promoting selfreliance in EV component development while enhancing domestic capabilities

• The MAHA- EV Mission will support industryaligned translational research in Electric Vehicles, an area of national priority.

53. (b) **Key Concept:** Government Schemes

Why in News?

The Central Government has recently launched the eShram-One Stop Solution platform, aimed at providing integrated access to 12 welfare schemes specifically designed for unorganised sector workers.

Explanation:

- This initiative was oicially inaugurated on October 21, 2024, by Union Minister Mansukh Mandaviya in New Delhi.
- eShram One Stop Solution will provide seamless access of different Social Security Schemes to the unorganised workers registered on eShram.

Key Features of eShram-One Stop Solution

- Integration of Welfare Schemes: The platform consolidates data from various central ministries and departments, allowing unorganised workers to access multiple social security and welfare schemes through a single interface.
 - This includes significant programs like: the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Pradhan Mantri Shram Yogi Maandhan, and the National Social Assistance Programme among others.
- User-Friendly Access: The eShram portal simplifies the registration process for unorganised workers, making it easier for them to benefit from government initiatives. As of now, over 30 crore workers have registered on the eShram platform since its initial launch in August 2021.
- The government plans to continue integrating additional welfare schemes into the eShram platform, enhancing its utility and reach among unorganised sector workers.
- This is part of a broader strategy to ensure that all potential beneficiaries are identified and can access available support effectively.

54. (*a*) **Key Concept:** Environment and Geography **Why in News?**

Recently, the Geographical Indications Registry in Chennai has granted the GI tag to **eight products from the Assam region**, including traditional food items, cultural textile and several unique varieties of rice beer.

Explanation:

 Recently, the Geographical Indications Registry in Chennai has granted the GI tag to eight



products from the Assam region, including traditional food items, cultural textile and several unique varieties of rice beer.

- New GI-Tagged Products from Assam:
 - Unique Varieties of Rice Beer -

Bodo Jou Gwran:

- Known for its high alcohol content (around 16.11%), making it the strongest rice beer among Bodo community varieties.
- Maibra Jou Bidwi (also known as Maibra Jwu Bidwi or Maibra Zwu Bidwi):
- A welcome drink for Bodo tribes, made by fermenting half-cooked rice (mairong) with minimal water and adding amao, a yeast source, to promote fermentation.

• Bodo Jou Gishi:

 Another traditional rice-based alcoholic beverage, made through fermentation.

Traditional Food Products -

- Bodo Napham: A popular fermented fish dish, prepared anaerobically in a sealed container over two to three months.
- Bodo Ondla: A rice powder curry flavored with garlic, ginger, salt, and alkali, commonly enjoyed by the Bodo community.
- Bodo Gwkha (also known as Gwka Gwkhi):
 Prepared during the Bwisagu festival, a traditional dish specific to Bodo celebrations.
- Bodo Narzi: A semi-fermented dish made with jute leaves (*Corchorus capsularis*), rich in Omega-3 fatty acids, vitamins, and minerals like calcium and magnesium.

• Cultural Textile - Bodo Aronai:

• A small, traditional cloth (1.5-2.5 meters in length and 0.5 meter wide), known for its intricate patterns and cultural significance.

55. (b) **Key Concept:** MoU and Agreements

Why in News?

 The Department of Posts (DoP) and Amazon signed an MoU on October 5, 2024, to enhance logistics and expand parcel delivery across India.

Explanation:

- Partnership: Amazon signed a memorandum of understanding (MoU) with the Department of Posts (DoP) on October 5, 2024.
- Objective: To enhance logistics and expand parcel delivery across India.
- Collaboration History: This builds on a longstanding partnership between Amazon and DoP, which started in 2013.

Key Focus:

- Leverage **DoP's vast postal network** for better delivery reach, including **rural areas**.
- Improve logistics processes to increase efficiency.
- Share **capacity** to meet the growing demands of **e-commerce**.
- Impact: The partnership aims to streamline logistics, improve delivery efficiency, and support job creation, contributing to India's growing e-commerce sector.

56. (b) **Key Concept:** MoU and Agreements

Why in News?

RITES and NMDC signs MoA to provide project management consultancy services

Explanation:

RITES (Rail India Technical and Economic Service) and NMDC (National Mineral Development Corporation) signed a Memorandum of Agreement (MoA) on October 28, 2024, to improve rail connectivity for NMDC's mining operations.

 RITES will provide project management consultancy (PMC) services, including feasibility studies, detailed project reports, and end-to-end project management, to streamline logistics and enhance connectivity for NMDC's sites.

57. (b) **Key Concept:** MoU and Agreements

Why in News?

 GAIL and VERBIO signed an MoU on October 28, 2024, to develop CBG projects using agricultural residue.

Explanation:

- Objective: Promote sustainable energy solutions by converting agricultural waste into renewable energy.
- Project Scope:
 - Location Identification: Both companies will work to identify suitable locations for setting up CBG plants.
 - Feasibility Studies: Detailed feasibility studies will be conducted to assess the viability of each potential site.

Joint Venture Formation: GAIL and VERBIO plan to form a Joint Venture (JV) to streamline the planning, development, and operation of the projects.

58. (a) **Key Concept:** MoU and Agreements

Why in News?

India, Nepal, and Bangladesh signed a trilateral power trade agreement on October 4, 2024.



Explanation:

- Electricity from Nepal to Bangladesh will be transmitted through this transmission line: This statement indicates that the transmission line in question is involved in the transfer of electricity between Nepal and Bangladesh, with India acting as a transit country.
- Nepal will export 40 MW of electricity to Bangladesh using this transmission grid: This specifies that the transmission grid in question is responsible for the export of 40 MW of electricity from Nepal to Bangladesh.

59. (*c*) **Key Concept:** MoU and Agreements

Why in News?

CSIR-Central Drug Research Institute (CDRI), Lucknow, and Zydus Lifesciences Ltd signed an MOU for a new drug.

Explanation:

- Statement 1 is correct as it accurately mentions the collaboration between CSIR- CDRI and Zydus Lifesciences Ltd for developing a drug for osteoporosis in CKD patients.
- **Statement 2** is correct as it correctly identifies that the drug targets and inhibits **Sclerostin**, a protein linked to osteoporosis in CKD patients.
- Statement 3 is correct because the collaboration's objective is to offer a safer alternative to conventional osteoporosis drugs, which could potentially harm renal health.

60. (c) **Key Concept:** Summit and Conferences

Why in News?

Prime Minister Modi attends the **16th BRICS** Summit in Kazan, Russia.

Explanation:

The BRICS group originally comprised **Brazil**, **Russia**, **India**, **China**, and **South Africa**. However, during the **16th BRICS Summit** in **Kazan**, **Russia**, it was announced that BRICS has been **expanded** to include **Iran**, **Egypt**, **Ethiopia**, and the **UAE** (United Arab Emirates), in addition to the original members.

So, the expanded BRICS group now consists of:

- Brazil
- Russia
- China
- South Africa
- Iran
- Egypt
- Ethiopia
- UAE

Nigeria, however, is **not** included in this expanded BRICS group.

61. (*b*) **Key Concept:** Government Schemes

Why in News?

The PM Young Achievers Scholarship Award Scheme for Vibrant India (PM-YASASVI) is a significant initiative launched by the Ministry of Social Justice and Empowerment.

Explanation:

- It is aimed at providing financial support to students from marginalized communities in India
- Objective: The scheme is designed to empower students from Other Backward Classes (OBC), Economically Backward Classes (EBC), and De-notified Tribes (DNT) by facilitating access to quality education.
- Target Groups: It specifically supports students pursuing education at the pre-matriculation (Class IX) and post-matriculation (Class XI) levels.

• Scholarship Amounts:

- Students in Class IX can receive up to ₹75,000 per annum.
- Students in Class XI can receive up to ₹1,25,000 per annum.

• Eligibility Criteria:

- Applicants must belong to OBC, EBC, or DNT categories.
- The annual family income should not exceed ₹2.5 lakhs.
- Students must be enrolled in government schools or recognized institutions.
- Candidates need to register for the YASASVI
 Entrance Test (YET) conducted by the National Testing Agency (NTA).
- The application can be submitted online through the NTA's oicial website.
- The scheme consolidates various earlier initiatives aimed at supporting these communities and aims for a streamlined approach to educational empowerment.
- It is expected to benefit a large number of students by providing them with the necessary financial support to continue their education.

62. (c) **Key Concept:** Science and Technology

Why in News?

The BharatGen initiative, launched by the Ministry of Science and Technology in 2024.

Explanation:

It is a groundbreaking generative AI project aimed at enhancing public service delivery in India

This initiative is notable for being the world's first government-funded multimodal large language



model (LLM) project, specifically designed to cater to India's diverse linguistic and cultural landscape.

Key Features of BharatGen

- Multilingual and Multimodal Models:
 BharatGen will develop foundational models that support various Indian languages and formats, integrating text, speech, and imagery.
- **Bhartiya Dataset:** The initiative emphasizes the creation of AI systems trained on Indiacentric datasets, ensuring that the models reflect the country's unique socio-cultural context.
- Open-Source Platform: BharatGen aims to foster an open-source ecosystem for generative AI research, promoting collaboration across academic and industrial sectors.
- Focus on Data Sovereignty: By prioritizing the collection of data that accurately represents India's linguistic diversity, BharatGen strengthens the nation's control over its digital resources.

63. (*c*) **Key Concept:** Science and Technology Why in News?

The World Health Organization (WHO) has oicially recognized India for eliminating trachoma as a public health issue in October 2024.

Explanation:

- The World Health Organization (WHO) has officially recognized India for eliminating trachoma as a public health issue, marking a significant milestone in the global fight against preventable blindness.
- This achievement positions India alongside Nepal and Myanmar in the WHO South-East Asia region, and it is one of 20 countries worldwide to have reached this goal.

• About Trachoma

- Trachoma is a contagious bacterial infection caused by *Chlamydia trachomatis*, which primarily affects the eyes and can lead to irreversible blindness if left untreated.
- The disease spreads through direct contact with infected eye or nasal secretions, often facilitated by poor sanitation and inadequate access to clean water.
- Symptoms: Itching, irritation, and discharge from the eyes, which can progress to scarring of the eyelids and inward turning of the eyelashes, a condition known as trichiasis.

64. (*d*) **Key Concept:** Science and Technology **Why in News?**

The Cabinet Committee on Security (CCS) has approved Phase III of India's Space-Based Surveillance (SBS-III) initiative.

Explanation:

- The Space Based Surveillance 3 mission will be strengthened by India's purchase of 31 Predator drones from the US, collaboration with France on military satellites, and antisatellite missile capabilities.
- This initiative will involve the launch of 52 satellites into low Earth orbit (LEO) and geostationary orbit (GEO), with a total estimated cost of approximately ₹26,968 crore.
- The new fleet of satellites will be based on artificial intelligence (AI) that can "interact with each other in space to gather geointelligence" on the Earth.
- The project will see the construction and launch of 21 satellites by ISRO and 31 by private companies, reflecting a growing collaboration between public and private sectors in India's space endeavors.
- The project involves launching 52 spy satellites in low Earth and geostationary orbits.
- The project aims to enhance India's space surveillance capabilities for national security.
- The National Security Council Secretariat and the Defence Space Agency under the Ministry of Defence are managing the SBS mission.
- Each branch of the armed forces (Army, Navy, Air Force) will have dedicated satellites for their specific operations.

65. (*c*) **Key Concept:** Science and Technology Why in News?

The Major Atmospheric Cherenkov Experiment (MACE) Observatory was inaugurated on October 4, 2024, by Dr. Ajit Kumar Mohanty, Secretary of the Department of Atomic Energy (DAE) and Chairman of the Atomic Energy Commission, at Hanle, Ladakh.

Explanation:

The Major Atmospheric Cherenkov Experiment (MACE) Observatory was inaugurated on **October 4, 2024 at Hanle, Ladakh**.

- This observatory is notable for being the largest imaging Cherenkov telescope in Asia and the highest of its kind in the world.
- It is located at an altitude of approximately 4,300 meters at Hanle, Ladakh
- The MACE telescope has been indigenously developed by the Bhabha Atomic Research Centre (BARC) with support from the Electronics Corporation of India Limited (ECIL) and various other Indian industry partners.
- MACE is designed to observe high-energy gamma rays, contributing to global research



efforts aimed at understanding some of the universe's most energetic phenomena, such as supernovae, black holes, and gamma-ray bursts. This facility will enhance India's capabilities in space and cosmic-ray research.

66. (*b*) **Key Concept:** Science and Technology Why in News?

 India has inaugurated its first Demonstration Facility for Biopolymers in Jejuri, near Pune, marking a significant milestone in the country's biotechnology sector.

Explanation:

 The facility was inaugurated on October 13, 2024, by Union Minister Jitendra Singh, highlighting its role in advancing eco-friendly plastic alternatives.

• Facility Overview:

- Spread over three acres, the facility is designed for the production of 100 tons per annum (TPA)
- It features advanced sections for fermentation, chemical synthesis, separation, and purification.
- Developed by Praj Industries, this facility showcases indigenously developed integrated PLA technology and represents a shift from fossil-based plastics to biodegradable alternatives, addressing the global plastic pollution crisis.

67. (b) **Key Concept:** Summit and Conference

Why in News?

 The COP16 nature summit in October 2024 focuses on negotiations regarding the use of genetic information from nature, known as Digital Sequence Information (DSI).

Explanation:

The Cali Fund, established at COP16, is a global fund designed to share the benefits derived from the use of Digital Sequence Information (DSI), which involves the digital representation of genetic data. The fund aims to ensure a fairer deal for nature and communities by ensuring that companies profit from nature's genetic resources in a sustainable and equitable manner.

68. (b) Explanation:

- M.K. Ranjitsinh is the author of the book *Mountain Mammals of the World*.
- He is a prominent wildlife conservationist from India and is known for his work in preserving endangered species.
- The book, which was published on October 21, 2024, covers 62 species and 78 subspecies of large mammals living in rugged and

inaccessible mountain ranges globally. It blends scientific insights with personal anecdotes from his extensive field research.

69. (c) Key Concept: Places in News

Why in News?

Recently, As per reports, Armenia has emerged as India's one of leading defense export destinations.

Explanation:

- Armenia (Capital: Yerevan)
- As per reports, Armenia has emerged as India's one of leading defense export destinations.

Political Boundaries:

- Location: Landlocked country of Transcaucasia (populated region to the south of the Caucasus Mountains).
- Border: Azerbaijan, Turkey, Nakhchivan Autonomous Republic (an exclave of Azerbaijan), Georgia, and Iran.
- Nagorno-Karabakh is a disputed territory between Armenia and Azerbaijan.

• Geographical features:

• Highest Peak: Mount Aragats (Alaghez)

• Rivers: Aras River

70. (*c*) **Key Concept:** Sports

Why in News?

 Mumbai won their 15th Irani Cup title, beating the Rest of India on the basis of a first-innings lead Ajinkya Rahane's Mumbai brought an end to a 27-year wait as they reclaimed the prestigious Irani Cup title, defeating the Rest of India (RoI) at the Ekana Stadium in Lucknow.

Explanation:

- The win, secured on a first-innings lead, marked Mumbai's 15th Irani Cup triumph, the most by any Ranji Trophy team.
- This victory holds special significance as the side had not won the title since the 1997-98 season, despite making eight final appearances in the intervening years.

About Irani Cup:

• The Irani Cup was first introduced in 1960 to celebrate the 25th anniversary of the Ranji Trophy.

The Irani Cup is a first-class cricket tournament in India that's played annually between the Ranji Trophy champions and a Rest of India (RoI) team.

71. (a) Key Concept: Sports

Why in News?

• GM Arjun Erigaisi beat France's Maxime Vachier-Lagrave in Armageddon to clinch the 2024 WR Chess Masters Cup, picking up the €20,000 top prize and 27.84 FIDE Circuit points.



Explanation:

- However, despite the win, Erigaisi could not cross the 2800 mark after his French opponent forced two consecutive two draws in the classical games.
- Erigaisi knew he had to win in classical chess on the final day to cross 2800 for the first time in his career.
- Erigaisi, who is world no. 4 with a live rating of 2796.1, beat compatriot Vidit Gujrathi and R. Praggnanandhaa on the way to winning the title.

72. (c) **Key Concept:** Sports

Why in News?

• The 24th National Para-Swimming Championship was held in Panjim, Goa from October 19–22, 2024.

Explanation:

- The event was organized by the Paralympic Committee of India (PCI), the Oice of the Commissioner for Persons with Disabilities, and the Goa Paralympic Association.
- The championship featured over 700 participants from more than 27 states and union territories in India.
- The 24th National Para-Swimming Championship concluded with Karnataka emerging as the overall champion.

73. (*b*) **Key Concept:** Sports

Why in News?

 India's top-ranked women's doubles pair of Ayhika Mukherjee and Sutirtha Mukherjee made history, securing a historic bronze medal, the country's first-ever medal in the category, at the Asian Table Tennis Championships in Astana, Kazakhstan.

Explanation:

 Ayhika and Sutirtha have become the first- ever all-India women's doubles pair from India to win a medal at the competition.

74. (c) Key Concept: Sports

Why in News?

 Bihar Chief Minister Nitish Kumar on Saturday unveiled the logo and mascot for the Women's Asian Champions Trophy-2024, which will be held in Rajgir from November 11-20.

Explanation:

- The mascot, named 'Gudiya', is inspired by the state bird of Bihar, Sparrow.
- The Women's Asian Champions Trophy-2024 is a joint venture of Hockey India and the Bihar government and will be held at the newly developed Rajgir Hockey Stadium.

75. (*c*) **Key Concept:** Science and Technology **Why in News?**

 The European Space Agency (ESA) recently launched its Moonlight Lunar Communications and Navigation Services (LCNS) program during the International Astronautical Congress on October 15, 2024.

Explanation:

- The Moonlight program aims to establish a satellite constellation around the Moon to provide essential communications and navigation services for over 400 planned lunar missions by various space agencies and private companies over the next two decades.
- The program will deploy a constellation of five satellites—four dedicated to navigation and one for communications. This infrastructure will enable precise autonomous landings and facilitate high-speed, low-latency data transfer between Earth and the Moon.
- The satellites will prioritize coverage of the Moon's south pole, an area of significant interest due to its favorable solar conditions and potential water ice deposits in permanently shadowed craters.
- The first satellite, named Lunar Pathfinder, is scheduled to launch in 2026, with initial services expected to begin by the end of 2028 and full operational capability by 2030.
- ESA is collaborating with NASA and JAXA
 (Japan Aerospace Exploration Agency)
 on the LunaNet framework, which aims
 to standardize lunar communication and
 navigation protocols. This collaboration ensures
 compatibility with future lunar infrastructures.













