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AN IDEAL INSTITUTE FOR CIVIL SERVICE EXAMS

# SANGAMAM

Monthly Current Affairs for Competitive Exams

SEPTEMBER - 2024 (English / Tamil)



Women's Singles SU5 | Para Badminton

THULASIMATHI MURUGESAN



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Monthly Current Affairs for TNPSC

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#### **THULASIMATHIMURUGESAN**



Thulasimathi Murugesan created history by becoming the first ever India para shuttler to clinch a silver medal Paralympics. Murugesan lost to China's Qiu Xia Yang in the final of women's singles SU5 gold medal match at the ongoing Paris Paralympics 2024 to win silver. The SU5 category is for athletes with impairment on the upper limbs, which could be in the playing or the non playing hand.

Thulasimathi Murugesan (born 11 April 2002) badminton paralympian from Tamil Nadu. represented India at the 2022 Para Asian Games held at Gangzhou, China.She won three medals in para SL-3SU5 badminton competitions, and SU<sub>5</sub> classes. shuttler She made history as the first Indian woman to win **Paralympic** silver medal, following remarkable journey to the final in the SU5 category. Thulasimathi December 2023. won the gold medal the women's doubles partnering Manasi Joshi at the Dubai Para Badminton International 5th Fazza 2023. She later another bronze the mixed won in doubles SL3 and SU5, along with Nitesh Kumar. Along with Manasi, she is second in the World Para-Badminton doubles rankings. She trains under coaches Gopichand and Irfan at Hyderabad. She is supported by Olympic Gold Quest.

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**AWARDS** 

SPORTS NEWS



#### M. PECHIYAMMAL, GR-I - 34 RANK

Assistant Commissioner of Commercial Taxes



All my school and college studies were in Tamil medium only in government institutes. This is my third attempt and I have passed the rank of 34th Assistant Commissioner of Commercial Taxes (Assistant Commissioner of Commercial Taxes). Our family background is not important for this exam. What matters is how hard we try for this exam. While preparing for this exam you should know its depth first. First you have to read the exam syllabus and the question papers of last few years exams. Even if it is 2 hours a day it is very important how deeply and without distraction we study. Similarly, as much as we study, so much practice is necessary. It is applicable for first and main examination. Interview is the day to test our knowledge. It is a test of our self-confidence.

Consistency, self-motivation, and repetitive practice are all three must-haves for government exams. The training institutes that we can choose also play an important role in this. So the one coaching institute I chose rightly was **Sivarajavel IAS Academy.** I have practiced well by writing the practice questions for the main exam given here. They also pointed out my mistakes and

made me clear. This is why I was able to score well in the main exam. I also took my mock interview 3-2 times in this coaching center. Each time it brought better experience and understanding. Their guidance was very encouraging and supportive. He explained clearly what to do and what not to do. **Sivarajavel IAS Academy** has been a great asset to my success.





# Jumping Spider New Specie Discovered in Tamilnadu

- New jumping spider species, Carrhotus piperus, discovered in lower Palani Hills, Tamil Nadu
- Found during a 2016 survey in Thadiyankudisai, Dindigul Research led by John Caleb T.D. (Saveetha Institute of Medical and Technical Sciences) and M. Sampathkumar (ICAR-National Bureau of Agricultural Insect Resources)
- Taxonomic description published in the Journal of Insect Biodiversity and Systematics
- Increases known Carrhotus species count to 10 in India and 37 globally
- Highlights the rich biodiversity of the Palani Hills region

#### **Unique Characteristics and Habitat**

- Named Carrhotus piperus after its habitat on Piper nigrum (black pepper) plants
- Found approximately two meters above ground level on pepper plants
- Distinguishable features:
- Unique prolateral protrusion
- Beak-shaped embolus (part of reproductive structure)
- These traits set it apart from other members of the Carrhotus genus
- Specific epithet 'piperus' derived from the plant's generic name, reflecting its distinctive habitat
- Belongs to the Salticidae family of jumping spiders

# New Chief justice of the Madras high court

• Justice Kalpathi Rajendran Shriram was sworn

- in as the chief justice of the Madras high court . The oath of office was administered to him by Tamil Nadu governor R N Ravi at the Raj Bhavan in Chennai.
- He was previously serving as a judge at the Bombay HC where he has been a confirmed judge since March 2016.

## **Best Heritage Tourism Site in India** for 2024

- The ancient archaeological site of Keeladi in Tamil Nadu has been honored as the Best Heritage Tourism Site in India for 2024.
- This prestigious accolade was presented during the World Tourism Day celebrations on September 27, 2024, organized by the Ministry of Tourism, Government of India.
- The award ceremony, presided over by Vice President Jagdeep Dhankhar, highlighted Keeladi's significant contribution to India's cultural and historical preservation. Subramanian, the village president of Keeladi, received the award on behalf of the site.
- Keeladi's excavation discoveries, which date back to the Sangam era, have made it a focal point for historians and tourists seeking to explore Tamil Nadu's ancient heritage.
- In addition to Keeladi, other heritage sites were also acknowledged, including Thutmaraas from Chhattisgarh, reinforcing the nationwide effort to protect India's rich historical legacy.

#### Uyarvukku Padi Program

- Uyarvukku Padi is a program under the Naan Mudhalvan scheme of the Tamil Nadu government that helps students who have passed Class XII but not enrolled in higher education to get admission:
- The program aims to enroll students who dropped out of education in 2022-23 and 2023-24.

- It involves identifying higher education institutions near the students' homes and securing admission for them.
- The program also provides information to government school students about higher education and professional development opportunities.
- The program is conducted in multiple phases.
- The Tamil Nadu government plans to enroll over 2.47 lakh students in the program

#### Tamil Nadu Achieves Milestone in Organ Donation

- The state has retrieved 7,200 organs from 1,988 donors over the past 16 years, with more than 200 donations in 2024, said Health Minister Ma Subramanian at a meeting organised to honour donor families and transplant teams from govt and private hospitals.
- "Tamil Nadu has consistently won the best state award in organ transplants for over five years," he said.
- The decision to accord state honours to organ donors has significantly raised awareness.
- Since Sept 2023, more than 1,400 organs have been retrieved from 272 brain-dead individuals.

- Additionally, 14,300 people have registered online for organ donation.
- "States such as Andhra Pradesh and Odisha are now following Tamil Nadu's lead in honouring donors," he said.
- The state observes Septem 23 as organ transplant day, in memory of organ donor Hitendran, who donated his organs in 2008.
- Tamil Nadu offers free transplants for various organs, including heart, lung, liver, and kidneys, under the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS).

#### **New Municipalities**

- Tamil Nadu govt is intending to upgrade Sriperumbudur, Mamallapuram and Thiruvaiyaru town panchayats into municipalities.
- The municipal administration and water supply department issued a notification on Monday, stating that this move would lead to the division of wards for the next ordinary election.
- "Based on the above constitution, wards will be divided for the next ordinary election," the municipal administration and water supply department said in the notification.

#### **India's second-largest butterfly**



- The Southern Birdwing, India's second-largest butterfly species, has been discovered at a new location, in Madurai district, Tamil Nadu.
- This adds to the known range of this species and highlights its presence in a previously undocumented area.
- The Southern Birdwing was the largest butterfly species in India from 1932 to 2020, until it was surpassed by the Golden Birdwing, which has a slightly larger wingspan.

#### 23rd Law Commission

- The Union government set up the 23rd Law Commission for three years to identify laws that have become obsolete and can be repealed, carry out audits of laws that affect the poor and give its views on any law that the Law and Justice Ministry conveys to it.
- In a notification, the Law and Justice Ministry set up the Law Commission from September 1, 2024 to August 31, 2027.
- The commission will include a full-time chairperson, four full-time members, the Secretaries of the Legal Affairs and Legislative departments as ex-officio members and up to five part-time members.
- The government is yet to appoint the members. The last Law Commission was notified in February 2020, but the chairperson and members were only appointed in November 2022.

#### Vishanu Yuddh Abhyas

- Under the National One Health Mission (NOHM), a comprehensive mock drill named "Vishanu Yuddh Abhyas" (Virus War Exercise) was held in Ajmer district, Rajasthan, from August 27 to August 31, 2024.
- This exercise aimed to assess the pandemic preparedness of the National Joint Outbreak Response Team (NJORT), which includes experts from human health, animal husbandry, and wildlife sectors. The drill simulated a zoonotic disease outbreak to evaluate the readiness and response of the teams involved.

#### **Global Plastic Pollution crisis**

 A recent study published in 'Nature' has spotlighted India as a major contributor to the global plastic pollution crisis.

- According to the study, India now leads the world in plastic emissions, contributing nearly 20% of the global total.
- The research highlights the scale of the crisis, showing that uncollected waste and open burning are the primary culprits behind India's staggering figures.
- The study estimates that India emits around 9.3 million tonnes of plastic pollution annually, a significant portion of the world's total plastic emissions.
- This places India ahead of Nigeria and Indonesia, which emit 3.5 and 3.4 million tonnes per year, respectively. China once considered the worst offender, now ranks fourth with 2.8 million tonnes.

# India's first biomass to green hydrogen project

- Solar engineering, procurement, and construction (EPC) and electric mobility solutions company Gensol Engineering, along with green hydrogen infrastructure developer and natural gas aggregator Matrix Gas & Renewables, announced they have emerged as the lowest bidder for the EPC of India's first biomass to green hydrogen project.
- A consortium of the two companies will develop the Rs 164 crore project, which seeks to establish a 25 tonnes per day (TPD) bio-waste processing facility, producing 1 TPD green hydrogen infrastructure, Gensol Engineering said in a statement.
- The company has strategically partnered with Westinghouse, USA, which has patented technology and has commissioned multiple plants globally.
- In this case, the pre-gasification plasma-induced radiant energy-based gasification system technology will be utilised.

#### Rangeen Machhli mobile app

 To address the growing demands of the ornamental fisheries sector, the Pradhan Mantri Matsya Sampada Yojana (PMMSY) has helped the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA) develop the Rangeen Machhli mobile app.

#### About

- The new app offers a comprehensive guide to help both novice and professional fishers in the ornamental fish industry.
- The app has multilingual information on popular ornamental fish species in eight Indian languages, making it accessible to a broader audience.
- The user can easily find nearby aquarium shops by using the Find Aquarium Shops tool, which allows users to connect with local businesses.
- The app also offers educational modules for both newcomers and professionals in the ornamental fish industry.
- The "Basic of Aquarium Care" module covers essential topics such as the types of aquariums, fish, water filtration, lighting, feeding, and day-to-day maintenance, while the "Ornamental Aquaculture" module focuses on breeding, rearing, and caring for different ornamental fish.

# II nd- International Conference Green Hydrogen (ICGH-2024)

- Government of India launched the National Green Hydrogen Mission (NGHM) to create an ecosystem targeted towards making India a global hub of production, consumption and export of Green Hydrogen and its derivatives.
- MNRE has taken significant steps like awarding incentives for electrolyser manufacturing and production of Green Hydrogen; launching of pilot projects in Steel, Shipping and Mobility sector and launching R&D scheme for Green Hydrogen.
- Establishing Green Hydrogen ecosystem and catalysing a systemic approach for meeting the aspirational Indian goal of producing 5 MMT Green Hydrogen by 2030.
- Apart from domain specific research interactions

- on hydrogen production, storage, distribution & downstream applications, the conference will also discuss green financing, human resource upskilling and startup initiatives in this area.
- The three-day mega event will focus on technology, trade and exhibition.

#### Port Blair - Now Sri Vijaya Puram

- The Central government, announced that Port Blair, the capital city of the Andaman and Nicobar Islands, is now Sri Vijaya Puram. Home Minister Amit Shah said to free the nation from the colonial imprints, today we have decided to rename Port Blair as Sri Vijaya Puram."
- The name Port Blair is said to have carried a colonial legacy.
- Sri Vijaya Puram symbolises the victory achieved in our freedom struggle and the A&N Islands' unique role in the same.
- The Andaman & Nicobar Islands have an unparalleled place in our freedom struggle and history.
- The island territory that once served as the naval base of the Chola Empire is today poised to be the critical base for our strategic and development aspirations.

# **DPIIT To Launch BHASKAR Platform For Startups**

- Department for Promotion of Industry and Internal Trade, DPIIT is set to launch a digital platform – BHASKAR- aimed at strengthening India's startup ecosystem.
- The Bharat Startup Knowledge Access Registry, BHASKAR initiative, is a platform designed to centralize, streamline, and enhance collaboration among key stakeholders within the entrepreneurial ecosystem.
- This initiative aligns with Government's vision to transform India into a global leader in innovation and entrepreneurship.
- Commerce and Industry Ministry said in a release that BHASKAR will bridge the gap between startups, investors, mentors, and other stakeholders, allowing for seamless interaction across sectors.

#### Global Bio India 2024 conference

- The Global Bio India 2024 conference held recently in New Delhi showcased India's expanding bio economy and launched the India Bio Economy Report (IBER) 2024, along with unveiling 30 groundbreaking startups, paving the way for the future of biotech.
- Global Bio-India 2024 is an annual event organised by the Biotechnology Industry Research Assistance Council (BIRAC), a Public Sector Undertaking under the Department of Biotechnology (DBT).
- It provides a unique venue for collaboration among governments, startups, research institutes, and international bodies.
- The recently approved BioE3 (Biotechnology for Economy, Employment, and Environment) policy by the Union Cabinet was highlighted at the event.
- BioE3 Policy aims to establish biomanufacturing facilities, bio foundry clusters, and Bio-AI hubs.
- IBER 2024 released by DBT and BIRAC, details the impressive progress of India's biotech industry.
- Key Highlights: India's bio-economy has grown from USD 10 billion in 2014 to USD 151 billion by 2023, and is expected to reach USD 300 billion by 2030, driven by increasing demand for vaccines and biopharmaceuticals, now accounting for 4.25% of India's GDP of USD 3.55 trillion in 2023.
- Initiatives Related to Biotech: National Biotechnology Development Strategy 2020-25, National Biopharma Mission, Biotech-KISAN Scheme, Atal Jai Anusandhan Biotech Mission, and Biotech Parks.

#### 8th India Water Week (IWW) 2024

- The President of India inaugurated the 8th India Water Week (IWW) 2024 in New Delhi, under the aegis of the Ministry of Jal Shakti.
- This prestigious international forum has gained significance as a key platform for discussions and collaboration on water resource management.

#### **India Water Week 2024**

#### Aim:

- It aimed to address critical challenges pertaining to water management and fostering innovation in water-related technologies and practices.
- Since its inception in 2012, IWW has evolved into a crucial platform in global water diplomacy, facilitating dialogue, innovation, and knowledge exchange on critical waterrelated challenges.

#### Theme:

- The theme of IWW 2024, 'Partnerships and Cooperation for Inclusive Water Development and Management' highlighted the pivotal role of collaborative efforts across sectors and nations in tackling the escalating water challenges of the 21st century.
- It emphasized the need for integrated and holistic approaches to water conservation, efficient management, and the equitable distribution of water resources.
- The theme also underscored the critical importance of international cooperation and multi-stakeholder partnerships in ensuring sustainable water development and addressing global water security concerns.

#### **Participants:**

- Nations like Denmark, Israel, Australia, and Singapore presented their water-related innovations and experiences.
- China and Bangladesh did not participate in the International Water Week events in India.
- Representatives of the World Water Council, World Bank and Asian Development Bank were also present.
- The Ministry of Cooperation unveiled standard operating procedure (SOPs) for White Revolution 2.0, aimed at empowering women farmers and creating job opportunities.

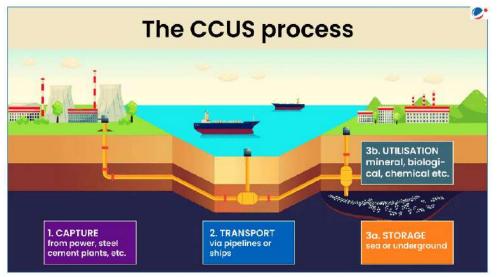
#### **About White Revolution 2.0**

 About White Revolution 2.0: It is an initiative to increase milk production along with empowerment of women and the fight against malnutrition.

- It is in line with White Revolution launched in 1970 by Dr. Verghese Kurien that transformed the dairy-deficient nation into the global leader in milk production.
- White Revolution is also known as 'Operation Flood'.
- Target under White Revolution 2.0: Dairy cooperatives are projected to procure 100 million kilograms of milk daily by the end of the 5th year of the initiative.
- It aims to increase procurement led by cooperatives from the present 660 lakh litres per day to 1,000 lakh litres.
- Launch of Margdarshika (SOPs): Margdarshika (SOPs) has been launched to form 200,000 new multipurpose primary agricultural cooperatives (MPACs).
- It will foster new cooperatives in panchayats that don't have one for agricultural, fisheries and dairy-related activities.
- It has been prepared by the Ministry of cooperation in collaboration with NABARD, and National Dairy Development Board (NDDB).
- Women Empowerment: Maximum women are engaged in the dairy sector, generating business worth Rs 60,000 crore in Gujarat alone.
- The initiative will empower women by absorbing them in formal employment as the

- money will be deposited in their bank accounts.
- Tackling Malnutrition: With the increase in availability of milk, the biggest benefit will pass on to the poor and malnourished children.
- It will strengthen the fight against malnutrition by ensuring adequate nutrition for children.
- Integration with Existing and Upcoming Schemes: The plan will build on existing government schemes such as the Dairy Processing and Infrastructure Development Fund (DIDF) and the National Programme for Dairy Development (NPDD).
- A new phase, NPDD 2.0, is also proposed under the Department of Animal Husbandry and Dairying to further the cooperative agenda.
- Expansion of 'Cooperation Among Cooperatives' Initiative: The government launched the nationwide expansion of the 'Cooperation among Cooperatives' initiative, which was piloted successfully in Gujarat.
- It allows dairy farmers to access interest-free cash credit via RuPay Kisan Credit Cards and will distribute micro-ATMs to bring financial services to rural areas.
- PACS Computerisation: Standard operating procedures (SOPs) for the computerisation of Primary Agriculture Credit Societies (PACS) was launched to modernise PACS, ensuring more efficient and transparent operations.

#### India's First CO2-to-Methanol Pilot Plant in Pune



• Plant with capacity of 1.4 tons per day is being implemented under Public-Private Partnership with support from Department of Science and Technology.

#### About CO2-to-Methanol Conversion

• Currently, Carbon Utilization Technologies like CO2 to methanol are less developed compared to capture ones.

- CO2-to-methanol involves capturing carbon emissions before they enter atmosphere, particularly from industrial sources like power plants or directly from air via direct air capture technologies.
- Captured CO2 is then hydrogenated reacted with hydrogen to produce methanol.
- CO2-to-methanol conversion has potential to reduce greenhouse gas emissions and providing a sustainable fuel source.
- CO2-to-Methanol plant in Pune will advance indigenous Carbon Capture and Utilisation (CCU) technologies, marking significant step towards India's Panchamrit declaration.

#### **About Carbon Capture, Utilization and Storage (CCUS)**

- An infographic image illustrating the Carbon Capture, Utilization, and Storage (CCUS) process. It starts with the capture of CO<sub>2</sub> emissions from industrial sources like power, steel, and cement plants (Step 1). The captured CO<sub>2</sub> is then transported via pipelines or ships (Step 2). Finally, the CO<sub>2</sub> is either stored underground or under the sea (Step 3a) or utilized in mineral, biological, or chemical processes (Step 3b).
- Refers to Group of technologies for capturing of CO2 from large and stationary CO2 emitting sources like fossil fuel based power plants and other industries. (International Energy Agency)
- It involves transport of captured CO2 (by pipeline or through shipping, rail or trucks) to sites for utilization in different applications, injections into geological formations or depleted oil/gas fields for permanent storage and trapping of CO2.

# India Reviews Trade Agreement With Malaysia

- Amid growing trade imbalance with Malaysia, India has reportedly begun and exercise to review its existing trade agreement with the Southeast Asian country, examining the rules of origin under the pact.
- The India-Malaysia Comprehensive Economic Cooperation Agreement, was signed in 2011 when the trade deficit was \$2.6 billion, which surged to \$5.5 billion by FY24.
- India exports a variety of goods to Malaysia, including petroleum and aluminium products, buffalo meat, organic chemicals, and electrical machinery and equipment and light naptha.
- On the other hand, the primary Indian imports from Malaysia include vegetable oils, electrical machinery, petroleum products, nuclear reactors, boilers, and chemicals from Malaysia.
- "We are discussing with exporters if there are any issues with the rules of origin and non-tariff barriers such as sanitary and phytosanitary standards and technical barriers to trade as these impact the trade deficit.
- The pact is a comprehensive agreement that covers trade in goods and services, investments, and movement of natural persons.---
- The central government plans to engage in widespread consultations with trade and industry sectors and discuss flexibility in rules of origin as it seeks a higher share in the global value chains.
- Rules of origin are the criteria which determine the national source of a product and thereby the duty concessions.

#### US Announces Semiconductor Partnership With India

- It will include a comprehensive assessment of India's existing semiconductor ecosystem, regulatory framework, workforce and infrastructure needs.
- It will serve as the "basis for potential future joint initiatives" to strengthen and grow this critical sector.
- The US Department of State will partner with the India Semiconductor Mission, to explore opportunities to grow and diversify the global semiconductor ecosystem under the International Technology Security and Innovation (ITSI) Fund, created by the CHIPS Act of 2022.
- The Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act is intended to lure microchip manufacturing back to the US after decades of companies offshoring the technology.

#### **Semiconductors:**

- Semiconductors are materials with electrical properties that fall between those of conductors (like metals) and insulators (like rubber).
- They have a unique ability to conduct electricity under certain conditions while acting as insulators under others.
- They are sometimes referred to as integrated circuits (ICs) or microchips made from pure elements, typically silicon or germanium.
- In a process called doping, small amounts of impurities are added to these pure elements, causing large changes in the conductivity of the material.

- Applications: Semiconductors are used in a vast range of electronic devices.
- Transistors, which are fundamental components of modern electronic circuits, rely on semiconductor materials.
- They act as switches or amplifiers in everything from computers to cell phones.
- Semiconductors are also used in solar cells, LEDs, and integrated circuits.

#### Sri Lanka's new president



- Sri Lanka's leftist leader Anura Kumara Dissanayake took office as president, promising change in the island nation long led by powerful political families which is emerging from its worst economic crisis in more than seven decades.
- Millions of Sri Lankans had voted for the opposition parliamentarian, putting faith in his graft-fighting pledge and vow to bolster a fragile economic recovery.
- Dissanayake ran as the candidate for the National People's Power (NPP) alliance, which includes his

Janatha Vimukhti Peremuna (JVP) party that traditionally championed Marxist economic policies centred on protectionism and state intervention.





#### ENVIRONMENT NEWS



#### Akkulam-Veli Lake - Physico-Chemical Characteristics

- The Akkulam-Veli Lake surface sediment samples were collected at 19 sites throughout the lake to analyse diatom distribution, TOC, N, CaCO3%, clay mineralogy and sediment texture.
- The results suggest that the clay fraction is predominant in the eastern flank, whereas sand fraction is more in the western flank.
- TOC% and CaCO3% in the lake floor sediments are attributed to high organic activity within the lake and contributions from the vegetation around the lake margins.
- The results suggest that N is being added to the lake from secondary sources from catchment area leading to eutrophication of the lake.
- Further, clay mineralogy of the sediment samples reveals that kaolinite mineralogy dominates in clay fractions.
- Diatom studies show rich diversity of freshwater, marine and brackish diatoms and abundance of pollution-reflecting species such as Cyclotella sp. and Navicula sp.

# New species of glyptosternine catfish

- Exostoma sentiyonoae, a new species of glyptosternine catfish is described from the Dzuleke River, a tributary of the Barak River in Nagaland, northeastern India.
- This is the fourth species of Exostoma described from the Barak drainage. The new species can be distinguished from congeners by the adipose

- fin adnate to the upper procurrent caudal-fin rays, presence of tubercles on dorsal-fin spine, anterolateral surfaces of lip with parallel and rounded striae, slender head 7.7–13.1% SL, long dorsal-adipose distance 16.8–24.6% SL, small eye 5.1–8.8 % HL, and 41 vertebrae.
- Two species groups within the genus Exostoma are proposed; Group I, in which the adipose fin is confluent with the upper procurrent caudalfin rays, and Group II in which adipose fin is separate from the upper procurrent caudal-fin rays.

#### The world's most dangerous bird

- Cassowaries boast sharp talons, a 'naturally cranky' disposition, and blue plumage.
- At the beginning of 2024, about 144 new species were added to Australia's growing list of animals threatened with extinction. Roughly 2,000 native animal and plant species are currently at risk of extinction in the continent-sized nation.
- The government announced their Stage 2 Nature Positive Plan that includes more funding for endangered species in April, but conservationists continue to worry that it might not be enough to protect the biodiversity hotspot.
- One of those animals at risk of disappearing is the flightless southern cassowary bird.
- Perhaps the closest thing we have to a living, breathing dinosaur, these five-feet-tall birds stalk rainforests in Australia, New Guinea, and some Pacific islands with razor sharp four-inchlong talons and brilliant blue beaks.

# New cousin species from a ginger family

- Researchers have identified a new cousin species from a ginger family called turmeric, Genus Curcuma at Ungma village in Mokokchung district in the state of Nagaland, this information related research paper published by the botanical survey of India.
- Belonging to the Genus curcuma plant (family Zingiberaceae)
- Stands at 65-70 cm high
- Color of the flowers are yellow

#### Family Zingiberaceae

- This family plant has 21 types and 200 taxa in India presently.
- Curcuma is one of the most famous and the largest plant of this type of this plant family in India. The best known being turmeric (Curcuma longa), black turmeric (Curcumacaesia) and mango ginger (Curcuma amada).

#### Distribution of plant

- In India it is widely found in the Northeast, Southern states and The Andaman and Nicobar Islands.
- Widely distributed in South Asia, South East Asia and South China.
- A few species are also found in northern Australia and the south Pacific.

# India Successfully Launches Agni-4 Ballistic Missile in Odisha

 India carried out a successful launch of an Intermediate Range Ballistic Missile, Agni-4 from the Integrated Test Range in Chandipur, Odisha.

- The launch successfully validated all operational and technical parameters. It was conducted under the aegis of the Strategic Forces Command.
- In April this year, India had successfully tested the new-generation nuclear-capable Agni-Prime ballistic missile, with a strike range from 1,000 to 2,000 km, from the Abdul Kalam Island off the coast of Odisha.

# The Country's First Vaccine Against Zika

- IIL has signed a memorandum of association (MoA) with ICMR for the clinical development of the vaccine — the country's first codon deoptimised live attenuated vaccine against Zika — and Phase I clinical trial is likely to start soon.
- Zika is mostly a mosquito-borne viral infection transmitted by Aedes mosquitoes.
- It can also be transmitted to foetus during pregnancy, through sexual contact, blood transfusion and organ transplantation.
- The disease is usually mild and requires no specific treatment. However, it is more serious when infection occurs during pregnancy which may cause microcephaly and other congenital malformations in the infant, preterm birth and even miscarriage.
- In India, Zika cases have been reported from several states. According to the Union ministry of health and family welfare data, as on July 22, there are 537 Zika cases reported from across the country.

#### **Temporary 'Mini-Moon' 2024**

• An asteroid named '2024 PT5,' about the size of a school bus, briefly became a temporary

- "mini-moon" for Earth as it passed close to our planet. The asteroid was pulled into Earth's gravitational field but will only orbit our planet for 57 days before breaking free and drifting back into deep space by late November.
- '2024 PT5' was discovered on August 7, 2024, by the Asteroid Terrestrial-impact Last Alert System (ATLAS), an automated monitoring system funded by NASA and based in Hawaii.
- This system tracks near-Earth objects (NEOs) to assess any potential threats.
- Astronomers published a report in the Research Notes of the American Astronomical Society (RNAAS), stating that 2024 PT5's orbital characteristics resemble those of asteroids originating from the Arjuna asteroid belt, a sparsely populated group of small NEOs.
- Dr. Anil Kumar, head of ISRO's Network for Space Objects Tracking and Analysis (NETRA), which is also monitoring the asteroid, confirmed that the mini-moon is part of the Arjuna asteroid group.
- This group was named after Arjuna, a legendary warrior from the Mahabharata, symbolising the asteroid's swift and unpredictable movement through space.

#### New blood group system named MAL

- Scientists from NHS Blood and Transplant (NHSBT) and the University of Bristol have made a groundbreaking discovery by identifying a new blood group system named MAL.
- This breakthrough addresses a mystery that has persisted for nearly 50 years concerning the AnWj blood group antigen, first noticed in 1972.
- Senior research scientist Louise Tilley led the team that developed a genetic test to identify patients lacking the AnWj antigen.
- This test will improve care for patients with rare blood requirements and assist in finding compatible donors.
- However, NHSBT is the last resort for around 400 patients each year worldwide."

- The discovery's implications are extensive, providing benefits to patients worldwide.
- NHSBT's International Blood Group Reference Laboratory in Filton supports research by supplying antibodies and has created a test to integrate into current genotyping platforms.

## India's First Astronaut to ISS Set for Ax-4 Mission

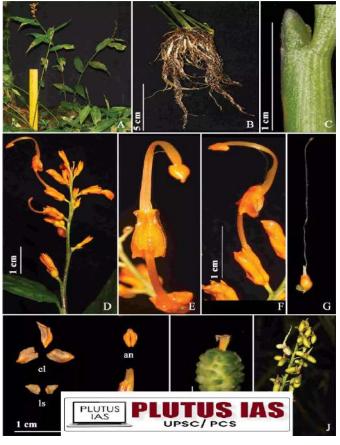
- In a monumental step for India's space program, Group Captain Shubhanshu Shukla of the Indian Air Force (IAF) will pilot the Axiom-4 (Ax-4) mission to the International Space Station (ISS) in 2025, reported.
- This mission will mark India's first human presence aboard the ISS and its second government-sponsored human spaceflight in more than four decades, following Wing Commander Rakesh Sharma's 1984 mission with the Soviet Union.
- The Ax-4 mission is the result of a collaborative initiative between India and the United States.
- More than a year ago, during an official state visit to the U.S., Prime Minister Narendra Modi announced that an Indian astronaut would travel to the ISS.
- Following this, the Indian Space Research Organisation (Isro) signed a spaceflight agreement with Axiom Space, a leading American company in human spaceflight services.

#### India's lunar mission Chandrayaan-4

• The Union Cabinet green-lit four important space endeavours for launches by the Indian Space Research Organisation (Isro) in the near future – the first of which is the fourth iteration of India's lunar mission Chandrayaan-4; the second, the development of Venus Orbiter Mission (VOM); the third, the building of first unit of India's indigenous space station, dubbed Bharatiya Anatriksh Station (BAS), by extending the scope of Gaganyaan programme; and finally, the development of Next Generation Launch Vehicle (NGLV).

- India's fourth mission to the Moon, for which a budget of ₹2,104.06 crore was cleared, will build on the success of Chandrayaan-3, with which India became the first country to land a probe on the lunar south pole, and till date remains the standout mission among all of Isro's achievements on the global stage.
- Chandrayaan-4 will be a remote mission seeking to retrieve samples of the lunar surface.
- The mission, which will aim to bring rock samples from the lunar surface back to Earth after a soft landing, is slated for launch in 2027 and will expand on the technology developed in Chandrayaan-3 by adding elements like lunar docking, precision landing, sample collection and a safe journey back to Earth.

#### **New Species of Ginger**



- Researchers from the Indian Institute of Science Education and Research (IISER) Bhopal have made an exciting discovery by uncovering three new species of ginger in the Eastern parts of India, particularly in the states of Mizoram and Meghalaya.
- These new types of ginger are special because of their unique flower shapes, and together, they are called the "dancing girls" ginger species.
- In a remarkable development in the field of botany, researchers have recently unveiled a new species of ginger in India, intriguingly named the 'Dancing Girls' ginger.
- This discovery not only adds to the rich tapestry of India's plant biodiversity but also highlights the critical importance of preserving our natural heritage.

#### THE THREE GINGER SPECIES

• Globba tyrnaensis: This species was discovered near the famous Double Decker Living Root Bridge in Meghalaya. It grows in the lower

part of the forest, called the understory, at an elevation of 731 meters. Many bees are attracted to its flowers, helping with pollination.

- Globba janakiae: This species is named in honor of Dr. E.K. Janaki Ammal, a famous Indian botanist. It was found in the same area in Meghalaya as Globba tyrnaensis.
- Globba yadaviana: This species was discovered along Reiek Tlang Road in Mizoram. It is named after Rajesh Yadav, who is the father of scientist Ritu Yadav.



#### SPORTS NEWS



No.	Athlete	Sport	Event	Medal
1	Avani Lekhara	Shooting	Women's 10m air rifle standing SH1	Gold
2	Mona Agarwal	Shooting	Women's 10m air rifle standing SH1	Bronze
3	Preethi Pal	Athletics	Women's 100m T35	Bronze
4	Manish Narwal	Shooting	Men's 10m air pistol SH1	Silver
5	Rubina Francis	Shooting	Women's 10m Air Pistol SH1	Bronze
6	Preethi Pal	Athletics	Women's 200m T35	Bronze
7	Nishad Kumar	Athletics	Men's high jump T47	Silver
8	Yogesh Kathuniya	Athletics	Men's discus throw F56	Silver
9	Nitesh Kumar	Badminton	Men's singles SL3	Gold
10	Thulasimathi Murugesan	Badminton	Women's singles SU5	Silver
11	Manisha Ramadass	Badminton	Women's singles SU5	Bronze
12	Suhas Yathiraj	Badminton	Men's singles SL4	Silver
13	Rakesh Kumar / Sheetal Devi	Archery	Mixed team compound open	Bronze
14	Sumit Antil	Athletics	Javelin throw F64	Gold
15	Nithya Sre Sivan	Badminton	Women's singles SH6	Bronze
16	Deepthi Jeevanji	Athletics	Women's 400m T20	Bronze
17	Mariyappan Thangavelu	Athletics	Men's high jump T63	Bronze
18	Sharad Kumar	Athletics	Men's high jump T63	Silver
19	Ajeet Singh	Athletics	Men's javelin throw F46	Silver
20	Sundar Singh Gurjar	Athletics	Men's javelin throw F46	Bronze
21	Sachin Khilari	Athletics	Men's shot put F46	Silver
22	Harvinder Singh	Archery	Men's individual recurve open	Gold
23	Dharambir	Athletics	Men's club throw F51	Gold
24	Parnav Soorma	Athletics	Men's club throw F51	Silver
25	Kapil Parmar	Judo	Men's -60kg J1	Bronze
26	Praveen Kumar	Athletics	Men's high jump T64	Gold
27	Hokato Hotozhe Sema	Athletics	Men's shot put F57	Bronze
28	Simran	Athletics	Women's 200m T12	Bronze
29	Navdeep Singh	Athletics	Men's javelin throw F41	Gold

- India achieved their most successful performance in Paralympic history at the Paris 2024 Games, securing a total of 29 medals seven gold, nine silver, and 13 bronze.
- This achievement surpasses the 19-medal haul from Tokyo 2020, which included five golds.
- The record haul also meant that India crossed the 50-medal mark in their Paralympic history.
- A record 84 para-athletes represented India at the Paris 2024 Paralympics, held in the French capital from August 28 to September 8.
- India competed across 12 disciplines, three more than at Tokyo 2020. Indian para-athletes participated in three new sports at Paris 2024 para cycling, para rowing, and blind judo.
- India had some impressive performances at the Paris 2024 Paralympic Games.

- Avani Lekhara became the first Indian woman to win two gold medals at the Paralympic Games, defending her title in the women's 10m air rifle standing SH1 shooting event with a world record score.
- India recorded a one-two in athletics for the first time, with Dharambir and Parnav Soorma clinching gold and silver, respectively, in the men's club throw F51 event.
- Dharambir also set a new Asian record of 34.92m. Later, Praveen Kumar also logged an Asian record to win the high jump T64 title and fetched India's sixth gold, their highest ever at the Paralympics.
- Javelin ace Sumit Antil too made history as the first Indian man to defend his title at the Paralympics, winning gold in the men's javelin throw F64 with a stunning throw of 70.59m—a new Paralympic record.
- Remarkably, Sumit broke his own previous record, set at the Tokyo 2020 Paralympics, not just once, but three times during the competition.
- With a bronze in the high jump T42 class, Mariyappan Thangavelu became the first Indian to win medals at three consecutive Paralympics. He won the gold medal at Rio 2016 and silver at Tokyo 2020.
- Preethi Pal secured her bronze in the women's 100m T35 race with a personal best time. It was India's first-ever medal in a track event at the Paralympics.
- Her bronze in the 200m made her India's most successful athlete at the Games, as she was the only one to secure two medals.
- In all, India won four medals in track events at Paris 2024. It included Deepthi Jeevanji, who became the first intellectually impaired Indian athlete to win a Paralympic medal with a bronze in the women's 400m T20 class.
- Records were set in archery too. Armless archer Sheetal Devi briefly set a world record in the ranking round before finishing in second place.
- But she teamed up with Rakesh Kumar later to achieve a world record score in the compound mixed team qualification event.
- At just 17 years old, Sheetal went on to make history as India's youngest Paralympic medallist, securing bronze in the mixed team

- event alongside Rakesh.
- Later, India found their first-ever Paralympic archery champion in Harvinder Singh.

# Vithya Ramraj - Beated P.T.Usha record

- Vithya Ramraj broke a 39-year-old meet record with an excellent run in the women's 400m hurdles at the 63rd National Open Athletics Championships at the Sree Kanteerava Stadium.
- Vithya (56.23s) beated the meet record set by P.T. Usha (56.80s) in 1985.

#### About

- Vithya Ramraj (born 20 September 1998) is an Indian athlete from Coimbatore, Tamil Nadu. She is a three-time National champion. She competes in 100m and 400m hurdles and 400 metres.
- On 2 October 2023 at t
- he 2022 Asian Games, she equalled the Indian national record of 55.42s in 400m hurdles set by P. T. Usha at the Los Angeles Olympics in 1984.
- She won the 400m hurdles bronze at the 2022 Asian Games in Hangzhou, China on October 3.
- Vithya also qualified for the 2024 Summer Olympics in Paris.

# 4th South Asian Junior Athletics Championships

- India hosted the 4th South Asian Junior Athletics Championships 2024 at the Jawaharlal Nehru Stadium, Chennai.
- The 4th South Asian Junior Athletics Championships took place in Chennai, Tamil Nadu, from September 11-13, 2024. India dominated middle-distance races and throwing events, while Sri Lanka excelled in sprint events.
- Sri Lanka won the men's 4x100m relay, while India secured silver. The Indian women won the 4x100m relay, with Sri Lanka second. Seven South Asian countries participated, with India sending the largest team of 62 athletes.

- India topped the medal tally with 48 medals (21 gold), followed by Sri Lanka with 35 medals, and Bangladesh secured third place with three bronze. Pakistan and Bhutan did not win any medals.
- Abinaya Rajarajan won gold in Women's 100m event.
- V Sudheeksha won silver in the same event...
- Siddharth Choudhary won gold in Women's Men's shot-put event.
- Neeru Pathak won the ninth gold for the Indian team in the women's 400m.
- Pooja won gold in Women's high jump event.
- Anisha won gold medal in women's discus throw.
- Vinod Kumar won silver in Men's 800m event.
- Mruthyam Rajaram won bronze in Men's 100m event.

# Asian Champions Trophy 2024 hockey:

- India clinch fifth title with winner in tense final against China
- Jugraj Singh scored in the fourth quarter in a closely contested final to help the Indian men's hockey team retain the title. Harmanpreet Singh was named the Player of the Tournament.

- The Indian men's hockey team defeated the hosts People's Republic of China 1-0 in the Asian Champions Trophy 2024 final at the Moqi Hockey Training Base in Hulunbuir.
- In a high-intensity clash, which saw China keep India at bay for most of the match, India's Jugraj Singh (51') slotted home the only goal of the game in the fourth quarter.
- India, who were the defending champions, are the most successful team in the competition with five titles 2011, 2016, 2018 (shared with Pakistan), 2023 and 2024.
- India Winning Rare Double Gold At Chess Olympiad 2024
- India scripted history as its men's and women's teams clinched their maiden gold medals in the 45th Chess Olympiad after beating their respective opponents in the final round.
- The men's team defeated Slovenia after D Gukesh, Arjun Erigaisi and R Praggnanadhaa won their respective matches in the 11th and final round match.
- The women's team beat Azerbaijan 3.5-0.5 to clinch the title. Indian men had earlier won two bronze -- in 2014 and 2022 -- in the tournament.
- Indian women had won a bronze in the 2022 edition in Chennai. World Championship challenger Gukesh and Arjun Erigaise yet again delivered in key games to help India secure its first title in the open category.







DATE	DAYS	THEME AND OBJECTIVES
Sep - 2	World Coconut Day	<ul> <li>World Coconut Day is an international day established by the Asian and Pacific Coconut Community, which is an intergovernmental organisation of coconut producing countries to recognize the importance of coconut. World Coconut Day has been observed on September 2 each year since 2009.</li> <li>World Coconut Day 2024 theme is Coconut for a Circular Economy: Building Partnership for Maximum Value, which focuses on promoting sustainability and partnerships in the coconut industry.</li> </ul>
Sep - 5	Teachers' Day	<ul> <li>The Indian culture gives immense importance to the relationship between gurus and shishyas (teachers and students). Teachers' Day on September 5 is not only a celebration of Dr Sarvepalli Radhakrishnan's birth anniversary, but it also honours teachers' dedication and hard work.</li> <li>The theme for Teachers' Day 2024 is "Empowering Educators for a Sustainable Future." This theme focuses on the importance of providing teachers with the essential tools and knowledge to nurture a generation that is environmentally aware, socially responsible, and capable of addressing future challenges.</li> </ul>
Sep - 8	International Literacy Day	<ul> <li>International Literacy Day is observed on September 8 to remind policy-makers, practitioners, and the public of the critical importance of literacy for creating a more literate, just, peaceful, and sustainable society.</li> <li>ILD 2024 Theme: "Promoting multilingual education: Literacy for mutual understanding and peace."</li> </ul>
Sep - 12	World First Aid Day	<ul> <li>World First Aid Day was started by the International Red Cross and Red Crescent Societies. First Aid Day is celebrated on the second Saturday of September each year. The day helps people learn how first aid can save lives in everyday situations. Many countries join by holding events, workshops, and first aid demos.</li> <li>This year, World First Aid Day 2024 will focus on the theme of "First Aid and Sports".</li> </ul>

Sep - 14	Hindi Day in India	<ul> <li>In English, Hindi Day in India is known as Hindi Diwas. It is celebrated on September 14 every year to commemorate the adoption of Hindi as an official language of India in 1949.</li> <li>"Celebrate Hindi, Celebrate Unity!" "Hindi Diwas: Embracing Language, Embracing Culture."</li> </ul>
Sep - 15	International Day of Democracy	<ul> <li>In 2007 the United Nations General Assembly resolved to observe 15 September as the International Day of Democracy.</li> <li>The International Day of Democracy is an opportunity to reinforce the importance of upholding free speech, civil liberties, and the rule of law; ensuring accountable institutions; and protecting and promoting human rights.</li> <li>It is within this last point that our work aligns with the theme for the 2024 iteration of the International Day of Democracy: Ensuring effective governance of AI at all levels.</li> </ul>
Sep - 15	National Engineers' Day	<ul> <li>National Engineers' Day in India is celebrated every year on September 15 to commemorate the birth anniversary of Sir Mokshagundam Visvesvaraya, a renowned Indian engineer and statesman.</li> <li>The theme for National Engineering Day 2024 is "engineering role models". The Royal Academy of Engineering's annual event aims to inspire future generations to pursue engineering careers by highlighting the achievements of remarkable engineers</li> </ul>
Sep - 16	World Ozone Day	<ul> <li>International Day for the Preservation of the Ozone Layer is celebrated on September 16 designed by the United Nations General Assembly. This designation had been made on December 19, 2000, in commemoration of the date, in 1987, on which nations signed the Montreal Protocol on Substances that Deplete the Ozone Layer.</li> <li>Montreal Protocol: Advancing Climate Action</li> <li>On this World Ozone Day, we also celebrate its climate action. Phasing out ozone-depleting substances has proven to be a powerful tool for climate action that has helped slow global warming, for example, postponing the first ice-free Arctic summer by up to 15 years.</li> </ul>
Sep - 21	International Day of Peace	<ul> <li>The International Day of Peace, also officially known as World Peace Day, is a United Nations-sanctioned holiday observed annually on 21 September.</li> <li>The 2024 theme "Cultivating a Culture of Peace" draws inspiration from UNESCO's foundational belief that "wars begin in the minds of men, so it is in the minds of men that the defences of peace must be constructed</li> <li>.</li> </ul>

Sep - 21	World Alzheimer's Day	<ul> <li>World Alzheimer's Day, which takes place every Sept. 21, is a global effort to raise awareness and challenge the stigma around Alzheimer's disease and other dementia.</li> <li>The theme for World Alzheimer's Day 2024 is "Know Dementia, Know Alzheimer's". The focus of this year's campaign is on post-diagnosis support.</li> </ul>
Sep - 22	World Rhino Day	<ul> <li>World Rhino Day was first announced by WWF-South Africa in 2010. It brings together NGOs, zoos, rhino sanctuaries, and concerned citizens across the globe to raise awareness and funds for the five species of rhinoceros — all of which are under threat from the illegal rhino horn trade.</li> <li>Typically, the organization uses the general theme "Keep the Five Alive." This theme emphasises the importance of protecting all five rhino species: White, Black, Greater One-Horned, Javan, and Sumatran.</li> </ul>
Sep - 23	International Day of Sign Languages	<ul> <li>The UN General Assembly has proclaimed 23 September as the International Day of Sign Languages in order to raise awareness of the importance of sign language in the full realization of the human rights of people who are deaf.</li> <li>The theme for the 2024 International Day of Sign Languages is "Sign up for Sign Language Rights". The day is celebrated on September 23, and the theme highlights the importance of sign language and the need for its global recognition and support.</li> </ul>
Sep - 30		• Protecting blasphemy rights around the world is a core part of CFI's mission. As part of that mission we created International Blasphemy Rights Day, which is held each year on September 30. It is a day of solidarity with those who challenge oppressive laws and social prohibitions against free expression, to support the right to challenge prevailing religious beliefs without fear of violence, arrest, or persecution



On this World Ozone Day, we also celebrate its climate action. Phasing out ozone-depleting substances has proven to be a powerful tool for climate action that has helped slow global warming, for example, postponing the first ice-free Arctic summer by up to 15 years.







# Commissioning ceremony for INS Arighat

- In a significant step towards augmenting India's nuclear deterrence, the country's second nuclear-powered ballistic missile submarine, INS Arighat, was inducted into the Indian Navy.
- The commissioning ceremony for INS Arighat, the second Arihant-Class submarine, took place in Visakhapatnam, Andhra Pradesh, with the Defence Minister noting that this development further bolsters India's nuclear triad and enhances its nuclear deterrence capabilities.
- India's nuclear-powered ballistic missile submarine programme is a highly classified initiative, with the country's first domestically produced nuclear submarine, INS Arihant, launched in July 2009 and quietly commissioned in 2016.
- The INS Arihant reportedly became fully operational in 2018.

# Joint Military Exercise 'Yudh Abhyas 2024'

- The Indian Army today said that women soldiers from both India and the US are playing pivotal roles in every phase of the exercise in Yudh Abhyas 2024.
- Earlier yesterday, the Spokesperson of Defence said that over 1,200 Indian and US troops are currently pushing their limits in Rajasthan's rugged terrain, honing firepower and endurance in real-time counter-terrorism drills.
- India and US army personnel are training together to bolster interoperability and enhance

- synergy between forces of both nations in the 20th edition of the Joint Military Exercise 'Yudh Abhyas 2024.'
- Notably, army personnel have been training together at the Foreign Training Node, Mahajan Field Firing Ranges in Rajasthan, since September 9 and will continue till Sunday.

#### **New Zorawar LT light tank**

- India's defense capabilities have taken a significant leap forward with the successful completion of initial firing trials for the new Zorawar LT light tank.
- Designed to bolster the Indian Army's operational effectiveness in challenging terrains, this indigenous armored vehicle marks a milestone in the country's military modernization efforts.
- The Zorawar LT light tank has been specifically developed to address India's unique defense requirements, particularly in mountainous regions along the Line of Actual Control (LAC).
- With an average weight of 25 tons, this versatile combat vehicle is tailored for agile maneuvers in difficult terrains where larger main battle tanks struggle to operate effectively.

#### **Key features of the Zorawar LT include:**

- A modular Cockerill 3105 turret
- A powerful 105 mm main gun
- Advanced active protection system
- Customizable modular armor
- MTU 800 horsepower engine

#### **Exercise AIKYA**

- The National Disaster Management Authority (NDMA), in collaboration with the Southern Command of the Indian Army, is organized a two-day national symposium, 'Exercise AIKYA', on disaster management.
- National Symposium 'Exercise AIKYA' on Disaster Management
- The National Disaster Management Authority (NDMA), in collaboration with the Southern Command of the Indian Army, is organized a two-day national symposium, 'Exercise AIKYA', on disaster management.

#### Aim

 It aims to improve disaster preparedness and response through collaboration between various stakeholders.

#### **About AIKYA**

- Aikya," meaning" "Oneness" in Tamil, reflects the exercise's aim to integrate India's Disaster Management community.
- It brought together key stakeholders from across Peninsular India to enhance disaster preparedness and response capabilities.
- The exercise witnessed participation from six southern states/UTs: Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, and Puducheri

#### **Exercise Eastern Bridge-7**

- The Indian Air Force has successfully completed Exercise Eastern Bridge-7 with the Royal Air Force of Oman in Masirah, Oman. The exercise included a comprehensive series of training missions, which featured the participation of MiG-29 and Jaguar aircraft from the Indian Air Force and F-16 and Hawk from the Royal Air Force of Oman.
- The Defence Ministry said that the completion of the exercise underscores the commitment of India and Oman towards maintaining regional peace and security. It also added that both forces demonstrated their capability to operate jointly in diverse scenarios, enhancing their preparedness to face emerging security challenges.

#### Lightweight bulletproof jackets

- Aiming to ensure the safety of soldiers and minimise the risk of casualties during military engagements, the defence equipment manufacturers have developed lightweight bulletproof jackets known as ABHED (Advanced Ballistics for High Energy Defeat).
- The Defence Research and Development Organisation (DRDO), along with researchers from the Indian Institute of Technology (IIT) Delhi, has developed two types of ABHED bulletproof jackets, officials.
- The jackets developed at the DRDO Industry Academia Centre of Excellence (DIA-CoE) at IIT Delhi, are capable of mitigating the highest threat levels and are lighter than the maximum weight limits stipulated for the Army, according to the officials







#### Ramon Magsaysay Award - 2024

• In a momentous recognition of his contributions to the world of animation and storytelling, Hayao Miyazaki, the renowned Japanese film director and co-founder of Studio Ghibli, has been awarded the esteemed Ramon Magsaysay Award for 2024. This honor, often referred to as "Asia's Nobel Prize," underscores Miyazaki's profound impact on both the art of animation and global cultural discourse.

#### A Career Defined by Imagination and Impact

- Miyazaki's illustrious career spans decades, during which he has created a pantheon of beloved animated films that have captivated audiences worldwide. His works, including:
- "My Neighbor Totoro"
- · "Spirited Away"
- "Princess Mononoke"
- "Howl's Moving Castle"
- · "Ponyo"
- "The Boy and the Heron"
- These films have not only pushed the boundaries of animation as an art form but have also addressed complex themes such as environmental conservation and social harmony. Miyazaki's unique ability to make these challenging topics accessible and engaging for young audiences has set his work apart in the realm of animation.

#### **About the Award**

 The Ramon Magsaysay Award, established in 1957, stands as one of the most prestigious honors in Asia. It was created to commemorate Ramon Magsaysay, the third president of the Philippines, who was known for his integrity in governance and public service.

#### Miss Universe India 2024

- Gujarat's Rhea Singha has been crowned Miss Universe India 2024, and will now represent India at the global Miss Universe 2024 pageant.
- The grand finale of Miss Universe India 2024 was held on September 22 in Jaipur, Rajasthan.

#### **Cyprus International Film Award**

 Yuvan Shankar Raja won the Cyprus International Film Award for Best Musical Score in a Feature Film for his work on the 2005 film Raam. He is the only Indian composer to win this award.

#### **Grand Prix Award**

- Kottukkaali won the Grand Prix Award at the 22nd Amur Autumn International Film Festival in Russia:
- Director: PS Vinothraj
- Producer: Sivakarthikeyan
- Stars: Soori and Anna Ben
- The film was well-received by critics and audiences alike. It was praised for its strong performances and compelling narrative. The film was also experimental in not using any music, an unusual choice for a Tamil film.
- The film was earlier selected to premiere at the Berlin International Film Festival.

# India's forex reserves - New high of USD 683.987 billion

- According to the RBI data released, India's forex reserves jumped by USD 2.299 billion to a new high of USD 683.987 billion for the week ended on August 30,
- The forex reserves had jumped by USD 7.023 billion to a high of USD 681.688 billion in the previous reporting week.
- The data showed that foreign currency assets, a major component of the reserves, increased by USD 1.485 billion to USD 599.037 billion for the week ended August 30.
- Expressed in dollar terms, the foreign currency assets include the effect of appreciation or depreciation of non-US units like the euro, pound and yen held in the foreign exchange reserves.
- Gold reserves increased by USD 862 million to USD 61.859 billion during the week. The Special Drawing Rights (SDRs) were up by USD 9 million to USD 18.468 billion.
- India's reserve position with the IMF was down by USD 58 million to USD 4.622 billion in the reporting week, the apex bank data showed.

#### India's wholesale inflation

- India's wholesale inflation eased to a fourmonth low at 1.31 per cent on an annual basis in August from 2.04 per cent in July, as fuel prices turned negative and the pace of rise in food prices slowed.
- In August 2023, wholesale inflation was recorded at (-)0.46 per cent.
- The wholesale inflation, measured using the Wholesale Price Index, was expected to moderate to 1.85 per cent, according to a Reuters poll.
- Fuel and power saw a deflation in August with prices falling 0.67 per cent in August, as against 1.72 per cent rise in July, government data showed. Food prices, a key indicator, slowed to 3.26 per cent in August from 3.55 per cent in the previous month.
- The government however attributed the 'positive rate' of inflation in August primarily due to increase in prices of food articles, processed food products, other manufacturing, manufacture of textiles and manufacture of machinery & equipment etc.

#### **Digital Agriculture Mission**

- The Centre approved the Rs 2,817-crore Digital Agriculture Mission for the creation of digital public infrastructure in the farm sector by building AgriStack to provide solutions like an Aadhaar-like unique ID for farmers, a crop sown registry and geo-referenced village maps, and implementing the Digital General Crop Estimation Survey (DGCES).
- A proposal of this effect was approved by the Union cabinet, which met under the chairmanship of Prime Minister Narendra Modi.
- The mission will be launched as part of the agriculture ministry's activities planned for the first 100 days of Modi 3.0.
- A budgetary allocation of Rs 2,817 crore has been made for the mission, and Rs 1,940 crore of it will be provided by the Centre. The mission will be rolled out nationally over the next two years (till 2025-26).
- It was initially planned to be launched in the financial year 2021-22 but could not be rolled out because of the Covid outbreak, said a source.
- Later, the Government announced the building of digital public infrastructure for agriculture in the Union Budgets 2023-24 and 2024-25.

#### **Nambike Nakshe scheme**

- The Nambike Nakshe scheme is an online building plan approval process for the Bruhat Bengaluru Mahanagara Palike (BBMP):
- Property owners can get a provisional building plan approval from an authorized architect or engineer.
- They can then upload the plan online for final approval by the BBMP.
- The scheme applies to independent houses on plots less than 50x80 square feet.

#### **Benefits**

 The scheme eliminates the need for physical visits to BBMP offices. It also provides a transparent and time-bound approval process.

#### How it works in practice

- Registered engineers or architects conduct site inspections and verify documents during the initial plan approval stage.
- The software then assesses whether the plan adheres to zonal regulations.

#### 309 km New Rail line Project

- The Cabinet Committee on Economic Affairs approved a 309 km new line project providing the shortest rail connectivity between the two major commercial hubs of Mumbai and Indore, Union Minister Ashwini Vaishnaw said.
- The total cost of the project has been pegged at ₹ 18,036 crore and it will be completed by 2028-29, the minister said.
- The project will generate direct employment for about 102 lakh man-days,

#### About

- An official statement later said the project is a result of the PM-Gati Shakti National Master Plan for multi-modal connectivity which has been possible through integrated planning and will provide seamless connectivity for the movement of people, goods and services.
- The project covers six districts in Maharashtra and Madhya Pradesh and will increase the existing network of Indian Railways by about 309 km.
- It will promote tourism in the region by providing a shorter route between western/ southwestern parts of the country and central India.

- This will increase the tourist footfall to various tourist/religious places in the Ujjain-Indore region, including the Sri Mahakaleshwar Jyotirlinga Temple.
- The project will provide direct connectivity to Pithampur Auto Cluster (which houses 90 large units and 700 small and medium industries) from the gateway port of JNPA and other state ports.
- It will also provide direct connectivity to the millet-producing districts of Madhya Pradesh and onion-producing districts of Maharashtra which will facilitate the distribution of the same to the northern and southern parts of the country.
- This is an essential route, the statement said, for transportation of commodities such as agriculture products, fertiliser, containers, iron ore, steel, cement, petroleum, oil and lubricants (POL).
- The capacity augmentation work will result in additional freight traffic of a magnitude of about 26 MTPA (Million Tonnes Per Annum).

#### **Mission Mausam**

- The Union Cabinet has approved the launch of 'Mission Mausam,' a two-year initiative aimed at enhancing India's capacity to cope with extreme weather and climate challenges.
- The mission, with a financial outlay of ₹2,000 crore, will be implemented under the Ministry of Earth Sciences.
- Key components of the program include expanding research in atmospheric sciences, focusing on weather surveillance, forecasting, and modelling.
- The mission will integrate advanced technologies such as artificial intelligence, machine learning, and high-performance computing to improve the accuracy of weather predictions.
- Cutting-edge technologies like next-generation radars, advanced satellite systems, and highperformance supercomputers will play a vital role in the mission's success.
- A GIS-based automated Decision Support System will also be developed for real-time data dissemination.

#### Ayushman Bharat Pradhan Mantri Jan Arogya Yojana

- As part of the country's goal to achieve universal access to healthcare, India expanded health coverage through a significant amendment to its flagship health insurance program, Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY), to cover all citizens aged 70 and above, regardless of income or social status.
- This move, approved by the Union Cabinet, aims to provide comprehensive health coverage to approximately six crore (60 million) senior citizens across the country.
- For those already covered under AB PM-JAY, this will be an additional top-up cover of ₹5 lakh (US\$6,000) per family per year that doesn't need to be shared with family members under 70.
- This initiative represents a significant step towards universal health coverage in India and reduces the financial burden on families dealing with medical expenses for elderly members.
- AB PM-JAY, launched in 2018, is one of the world's largest publicly funded health assurance schemes.
- It initially aimed to provide health coverage of ₹5 lakh (US\$6,000) per family per year to the poorest 40% of India's population for secondary and tertiary care hospitalization.
- Since its inception, the program has already facilitated over 7.37 crore hospital admissions.

#### Subhadra scheme for women

 Odisha introduced the Subhadra scheme for women on Prime Minister Narendra Modi's birthday. The scheme aims to support more than 10 million women aged 21 to 60, transferring funds into their accounts.

#### **About Subhadra Scheme**

- It is named after Subhadra, the younger sibling of Lord Jagannath, the presiding deity of Odisha.
- Eligible beneficiaries aged 21 to 60 will receive a total of Rs 50,000 over five years, spanning from 2024–2025 to 2028–2029.

• Each year, Rs 10,000 will be provided in two equal instalments. First instalments of Rs 5,000 each will be made on Rakhi Purnima (Raksha Bandhan, which typically falls in August), and second instalment will be made on International Women's Day (March 8) every year.

#### Who is eligible for the scheme

- Only women who are natives of Odisha are eligible.
- The woman's name must be linked to the ration card of her household.
- The total family income should not exceed Rs 2.5 lakh per year.
- The scheme is available to women between the ages of 21 and 60 years.

#### **NPS Vatsalya Scheme**

- Union Finance Minister Nirmala Sitharaman launched the NPS Vatsalya Scheme for minors and distributed the Permanent Retirement Account Number (PRAN) to nine children subscribers during an event at Vigyan Bhawan in New Delhi on Wednesday, September 18, 2024.
- The children were specially invited to the event from Andhra Pradesh, Tripura, Bihar, Delhi, Madhya Pradesh, Uttar Pradesh, and other states. The NPS Vatsalya Scheme allows children below 18 to open an account in the National Pension System (NPS) under the supervision of parents or guardians. Until now, NPS was open only for people aged 18 and older.

#### **NPS Vatsalya Scheme Features:**

- \* The account can be opened for a child below 18 years of age.
- Upon turning 18, the NPS Vatsalya account gets converted into a regular NPS account and will be transferred to the adult child.
- Parents and guardians can open the account in the minor's name and contribute funds.
- It provides continuity to the retirement account after they become adult.

- An annual contribution of just Rs 1,000 is required in this scheme.
- It will have all NPS features (choice of investment, asset class, pension fund manager, etc.)
- It can be opened through Points of Presence (POPs) such as authorised banks, post offices, or online.
- Like the existing NPS scheme, Indian citizens, including non-resident Indians (NRIs) or Overseas Citizens of India (OCIs), can open an NPS Vatsalya account.
- One can withdraw up to 25 per cent of the corpus, a maximum of three times, after a 3-year lock-in for education, specific illnesses, and disability.
- Exit is allowed on reaching 18 years.
- In that case, if the corpus is over Rs 2.5 lakh, they can withdraw 20 per cent in a lump sum, and the rest must be used for buying an annuity;
- If it is less or equal to Rs 2.5 lakh, the entire amount can be withdrawn in one go. On death, the guardian can withdraw the whole corpus.
- The Pension Regulatory and Development Authority (PFRDA) will manage this scheme.

#### Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA)

- The Union Cabinet, chaired by Prime Minister Narendra Modi, on approved the continuation of the Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) to ensure fair prices for farmers and to regulate price fluctuations in essential commodities for consumers.
- This extension will incur a financial outlay of Rs 35,000 crore during the 15th Finance Commission cycle, up to 2025-26.

#### **Key changes in PM-AASHA**

 The government has converged the Price Support Scheme (PSS) and Price Stabilisation Fund (PSF) schemes under PM-AASHA to serve farmers and consumers more effectively.  This integration aims to provide farmers with remunerative prices for their crops, while stabilising the market prices of essential commodities, thus making them affordable for consumers.

# The revamped PM-AASHA now includes components like:

- Price Support Scheme (PSS)
- Price Stabilisation Fund (PSF)
- Price Deficit Payment Scheme (PDPS)
- Market Intervention Scheme (MIS)

#### **PM Vishwakarma Scheme**

- PM Vishwakarma, a Central Sector Scheme, was launched on 17th September, 2023 by the Prime Minister to provide end-to-end support to artisans and craftspeople who work with their hands and tools.
- The Scheme covers artisans and craftspeople engaged in 18 trades, viz. Carpenter (Suthar/Badhai), Boat Maker, Armourer, Blacksmith (Lohar), Hammer and Tool Kit Maker, Locksmith, Goldsmith (Sonar), Potter (Kumhaar), Sculptor (Moortikar, stone carver), Stone breaker, Cobbler (Charmkar)/Shoesmith/Footwear artisan, Mason (Rajmistri), Basket/Mat/Broom Maker/Coir Weaver, Doll & Toy Maker (Traditional), Barber (Naai), Garland maker (Malakaar), Washerman (Dhobi), Tailor (Darzi) and Fishing Net Maker.

# BENEFITS TO THE ARTISANS AND CRAFTS PERSONS

- The Scheme envisages provisioning of the following benefits to the artisans and crafts persons:
- Recognition: Recognition of artisans and craftspeople through PM Vishwakarma certificate and ID card.
- Skill Upgradation: Basic Training of 5-7 days and Advanced Training of 15 days or more, with a stipend of Rs. 500 per day.
- Toolkit Incentive: A toolkit incentive of upto Rs. 15,000 in the form of e-vouchers at the beginning of Basic Skill Training.

- Credit Support: Collateral free 'Enterprise Development Loans' of upto Rs. 3 lakh in two tranches of Rs. 1 lakh and Rs. 2 lakh with tenures of 18 months and 30 months, respectively, at a concessional rate of interest fixed at 5%, with Government of India subvention to the extent of 8%.
- Beneficiaries who have completed Basic Training will be eligible to avail the first tranche of credit support of upto Rs. 1 lakh.
- The second loan tranche will be available to beneficiaries who have availed the 1st tranche and maintained a standard loan account and have adopted digital transactions in their business or have undergone Advanced Training.
- Incentive for Digital Transaction: An amount of Re. 1 per digital transaction, upto maximum 100 transactions monthly will be credited to the beneficiary's account for each digital pay-out or receipt.
- Marketing Support: Marketing support will be provided to the artisans and craftspeople in the form of quality certification, branding, onboarding on e-commerce platforms such as GeM, advertising, publicity and other marketing activities to improve linkage to value chain.
- In addition to the above-mentioned benefits, the Scheme will onboard the beneficiaries on Udyam Assist Platform as 'entrepreneurs' in the formal MSME ecosystem. Enrolment of beneficiaries shall be done through Common Service Centres with Aadhaar-based biometric authentication on PM Vishwakarma portal.

#### "Ek Ped Maa Ke Naam" campaign

- The Union environment ministry said the target was achieved through collective efforts of government agencies, village-level institutions, the local people, and other stakeholders
- Union environment ministry on Wednesday said that it has achieved the target of planting 800 million seedlings by September under "Ek Ped Maa Ke Naam" campaign.
- "This has been made possible through collective efforts of government agencies, village-level institutions, the local people, and other stakeholders," the ministry said.

- "Ek Ped Maa Ke Naam" was launched on World Environment Day in June across the country to encourage people to plant a tree as a mark of love, respect, and honour for their mothers and pledge to protect trees and earth. The campaign aims to halt land degradation and promote restoration of degraded land.
- The ministry and the territorial army registered a world record of planting over 500,000 saplings in one hour at seven sites in Rajasthan's Jaisalmer.
- "5,19,130 saplings in one hour! The 128 Bn Eco-Task Force and Territorial Army (one of the 6 units of MoEFCC), in association with Territorial Army, registered a World Record of planting over 5 lakh saplings in one hour. The effort has emerged has a unique example of Janbhagidari under the #ek ped ma ke naam campaign with local communities, district authorities, NGOs, BSF, Home Guards and schools participating in the feat certified by the World Book of Records," Union environment minister.

#### Telangana Darshini' Program

- Telangana state government launched the 'Telangana Darshini' Program to those government school students to explore historical and tourist sites at no cost. It is also designed to enrich the educational experiences of government school students.
- 'Telangana Darshini' Program for Students to Visit Historical Sites
- Telangana state government launched the 'Telangana Darshini' Program to those government school students to explore historical and tourist sites at no cost. It is also designed to enrich the educational experiences of government school students.

#### Aim

- It aims to enhance student's knowledge through experiential learning rather than traditional classroom lessons.
- Research shows that firsthand experiences contribute significantly to a deeper understanding of subjects.
- Eligibility Criteria
- Students from class 2 to the graduation level can join.
- Only students studying in government institutions will be able to apply.
- Students will have to get consent from their parents or guardians to participate in the program.
- To ensure that the program benefits those who are genuinely engaged in their education, regular school attendance may be required.

#### **Benefits**

- Students from class 2nd to class 4th will be taken on tours to nearby places.
- Students from classes 5th to 8th will be taken on 20 to 30 km tours.
- Students from class 9th to Intermediate will be taken on tours of 50 to 70 km.
- Undergraduate students will be taken on extensive tours within the state.
- One of the most important benefits is that the program provides free access to various tourist destinations including museums, forts, temples, and natural reserves, making these educational experiences accessible to all students.
- The government arranges transportation for students to ensure safe and convenient travel to these places.





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