



FVF **RYDAY CURRENT AFFAIRS - October**

TAMIL NADU

- **On October 14, Chief Minister M K Stalin-led cabinet - approved the 'upgraded' aerospace and defence industrial policy**
 - ✓ The policy was aimed at making Tamil Nadu a preferred hub for aerospace and defence industries in the country in engineering, design, manufacturing and allied activities.
 - ✓ The amendments to the policy originally released during the Global Investors Meet 2019 are aimed at including fresh provisions to offer incentives to industries, thereby encouraging more players to be part of the Tamil Nadu Defence Industrial Corridor.
 - ✓ The Centre is planning to establish defence industrial corridor in the state comprising Chennai, Trichy, Coimbatore, Salem and Hosur belts.
 - ✓ The policy would be unveiled by the chief minister soon.
 - ✓ The cabinet also gave nod to the amendments proposed to be made in legislation in departments like municipal administration and finance.
 - ✓ The Cabinet meeting was held ahead of the next session of the State Legislative Assembly scheduled to commence on October 17
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- **Two inscriptions dating to the early Chola period - were discovered by epigraphists at the Pasupathisvarar temple in Allur, a village on the banks of the Cauvery river near Trichy city.**



- ✓ One of the inscriptions mention the history of a stone hall while another portrays an order from the local feudatory to exempt tax for land donated to the temple.
- ✓ The temple was built during the reign of Parantaka Chola I (924 AD).
- ✓ The inscriptions validate the history of an age-old tradition of constructing individual mandapams before the shrines.
- ✓ Such construction style was popular in the Pallava territory, followed at the beginning of the Chola era in the early 10th century.

NATIONAL

- **On October 13, Prime Minister Narendra Modi - flagged off the fourth Vande Bharat Express train in Himachal Pradesh's Una district**



- ✓ Jai Ram Thakur and Manohar Lal Khattar - Chief Ministers of two states Himachal Pradesh and Haryana - took part in the event
- ✓ The new semi-high-speed train will run between Delhi and Amb Andaura Railway stations and reduce the travel time from Una to New Delhi by two hours.
- ✓ India launched its first Semi High-Speed Train, "Vande Bharat Express", earlier known as Train 18, on the New Delhi-Kanpur-Allahabad-Varanasi route in 2019.
- ✓ The second Vande Bharat express was launched later in New Delhi-Katra route
- ✓ On September 30, PM Modi flagged off the third and upgraded version of the Vande Bharat express train between Gujarat's Gandhinagar and Mumbai central
- ✓ Meanwhile, the fifth Vande Bharat express train is expected to be launched on 10 November, which will run on Chennai- Bengaluru- Mysuru route.
- ✓ Indigenously built at ICF, the 16-coach train will cover around 483 km.
- ✓ Vande Bharat 2.0 is equipped with more advanced and better features like reaching the speed of 0 to 100 kmph in just 52 seconds and a maximum speed of 180 kilometers per hour

- ✓ The Vande Bharat Express will weigh 392 tonnes, while the weight of the previous train was 430 tonnes
- ✓ Apart from this, the Train Collision Avoidance System (TCAS) called KAVACH designed for non-collision will also be available in this train.
- **The Union Cabinet - approved amendments to the Multi-State Cooperative Societies Act, 2002 to bring transparency, accountability and reforms in the Cooperative sector**
 - ✓ The Bill will incorporate the provisions of the 97th Constitutional Amendment, which provided constitutional status to cooperative societies in the country
 - ✓ The amendments seek to improve ease of doing business, bringing greater transparency and enhance governance.
 - ✓ At present, India has more than 1,500 multi-state co-operative societies (MSCS) spread across the country promoting economic and social betterment of their members based on the principles of self-help and mutual aid.
 - ✓ Of these, the majority are in Maharashtra (570), followed by UP (150) and New Delhi (133)
 - ✓ Credit cooperatives constitute the bulk of the MSCS (610), followed by agriculture-oriented MSCS (244).
 - ✓ For ease of doing business, the amendment Bill proposes to reduce the period of registration, with a provision for the applicants to seek additional time of two months for rectification of mistakes
 - ✓ It also provides for electronic submission and issuance of documents, thus providing for a comprehensive digital ecosystem
 - ✓ In the amendment bill, the government has included provisions relating to representation of women and Scheduled Caste/Scheduled Tribe members on the board of multi-state cooperative societies
 - ✓ Notably, the Bill has specific provisions for setting up of Cooperative Election Authority, Cooperative Information Officer and Cooperative Ombudsman.
 - ✓ The election authority will ensure that elections are held in a fair, free and timely manner, which in turn will help reduce incidents of complaints and malpractices
 - ✓ Further, only active members of cooperative societies will be eligible to contest elections.
 - ✓ The ombudsman will provide for a mechanism for redressal of member grievances in a structured fashion, while cooperative information officer will enhance transparency by providing members timely access to information
 - ✓ The Bill has provisions for bringing in co-opted directors to the board with experience in the field of banking, management, cooperative management and finance
 - ✓ The banking functions of multi-state cooperative societies will henceforth be regulated under the Banking Regulation Act, thereby protecting depositors
 - ✓ Further, the newly proposed Rehabilitation, Reconstruction & Development Fund will help in revitalising sick co-operative societies.

- ✓ Multi-state co-operatives subject comes in the Union list, but the amendments are being proposed after the consultation with all states
- **Indian Computer Emergency Response Team (CERT-In) and Power-CSIRTs (Computer Security Incident Response Teams in Power sector) – have jointly hosted a cyber-security exercise called ‘PowerEX’**
- ✓ The CERT-In hosted the cybersecurity exercise on its simulation platform on October 12 with the participation of 193 Power sector utilities
- ✓ The objective of the exercise was to “Recognize, Analyse & Respond to Cyber Incident in IT & OT Systems”
- ✓ The exercise was held under the theme “Defending Cyber induced disruption in IT & OT infrastructure”.
- ✓ It helped the participants employed in power sector utilities to learn, practice and respond to the cyber threats.

CONFERENCES & SUMMITS

- **The ninth World Ayurveda Congress and Arogya Expo - will be held in Goa from December 8 to 11**



- ✓ On October 13, the curtain raiser for the event was organized in the presence of Union minister of Ayush, Sarbananda Sonowal
- ✓ The event is being organised by the World Ayurveda Foundation, an initiative of Vijnana Bharati, and supported by the Union government.
- ✓ It will witness the coming together of about 5,000 ayurveda stakeholders — industry leaders, practitioners, traditional healers, educationists, students, drug manufacturers, growers of medicinal plants and strategists — from across the world.
- ✓ Further, delegates from over 45 countries are expected to attend the expo.



- ✓ The four-day event will have seven plenary sessions, 16 themes for oral presentation, several associated events, and a public outreach programme
- ✓ A seminar on medicinal plants by the National Medicinal Plants Board and a conclave on Pashu Ayurveda are some of the activities that are part of the schedule.
- ✓ According to the Minister, the ministry of Ayush with all stakeholders celebrates ayurveda day every year on Dhanvantari Jayanti.
- ✓ He said that the motto of this year's celebration has been "har din har ghar ayurveda" (ayurveda everyday, ayurveda everywhere).

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **Researchers from Chennai-based CSIR-Central Leather Research Institute (CLRI) - have developed leather gloves for Army soldiers that can be used in extremely cold places like Siachen glacier, the world's highest battlefield.**
- ✓ The leather was made from a specially designed post-tanning process involving newly developed in-house chemicals to withstand temperatures between -30°C and -50°C .
- ✓ Field trials will soon be held in Siachen, where temperatures can drop to -60°C .
- ✓ Leather making involves pre-tanning, tanning, post-tanning and finishing.
- ✓ The third process involves re-tanning which adds fullness to the leather, fat-liquoring to make it soft and dyeing to add colour.
- ✓ CLRI has also developed fire retardant chemicals for the leather as the gloves will also be used during combat, and special adhesives that would not peel off in extremely low temperatures.
- ✓ The gloves are part of a project, 'Chills' initiated by CLRI director K J Sreeram.
- ✓ India spends around 800 crore annually in import of extreme cold weather clothing system and mountaineering kits for soldiers at heights ranging from 16,000 feet to 20,000 feet.
- ✓ They are mostly imported from countries like the US, Australia, Canada and Switzerland.

- ✓ The gloves underwent the first round of trials in the winter of 2021 in the plains of Ladakh where temperatures could drop to -50 degrees C.
 - ✓ CLRI had made 40 pairs of gloves and supplied to the Northern Command of the Army through the Ordnance Factory in Kanpur for feedback after usage during this winter season
- **Scientists – have recently discovered a ‘Trapping Zone’ in the Indian Ocean Island of Maldives**




- ✓ This Trapping Zone is a new ecosystem, which was discovered around 500 meters beneath the sub-sea surface
 - ✓ It was discovered by scientists who are working under the Nekton Maldives Mission.
 - ✓ Nektons are animals living in the open seas away from the shore that are capable of swimming independently of wind and water currents.
 - ✓ Some examples of Nektons include bony fishes and sharks (under chordate nekton category), octopuses and squids (under molluscan nekton category) and shrimps and lobsters (under arthropod nekton category).
 - ✓ In a first, the survey revealed the presence of several predators like various types of sharks and other large marine fishes that feed on micro-nekton.
 - ✓ These micro-nektons usually exhibit ‘vertical migration’ indicating migration from the deep waters to the surface at night and vice versa at dawn.
- **China - has successfully deployed its first space-based solar observatory nicknamed 'Kuafu-1' to study the Sun and its characteristics**
- ✓ Named Advanced Space-based Solar Observatory (ASO-S), the telescope lifted off from Jiuquan Satellite Launch Center in Inner Mongolia atop the Long March 2D rocket on October 9, 2022
 - ✓ First conceived in 1976 as ASTRON-1, the telescope's construction was completed in August 2022
 - ✓ It is equipped with three main instruments that will help scientists study the Sun 24x7 for the next four years.
 - ✓ It is also the first solar telescope in orbit that can concurrently monitor solar flares and coronal mass ejections

- ✓ The data gathered during the mission will be used to predict, monitor, and research solar flares.
- ✓ The observatory, which weighs roughly 888 kg, is deployed at an altitude of 720 km in a Sun-synchronous orbit
- ✓ It will study the Sun's magnetic field, solar flares and coronal mass ejections (CMEs), as well as superhot plasma ejecting out of the Sun at speeds reaching millions of km per hour
- ✓ The Parker Solar Probe from NASA and the Solar Orbiter from the European Space Agency are two other satellites that have been launched to observe the sun
- ✓ India plans to launch Aditya-L1 mission by the end of the next year in order to explore the solar environment.

DEFENCE

- **On September 14, India's nuclear-powered submarine INS Arihant - carried out a successful launch of a submarine-launched ballistic missile (SLBM) in the Bay of Bengal with a "very high accuracy"**
- ✓ According to the defence ministry, all operational and technological parameters of the weapon system have been "validated" during the launch
- ✓ India's nuclear-powered ballistic missile submarine (SSBN) programme is a closely guarded project.
- ✓ INS Arihant was the first boat under the SSBN project that was followed by another boat, INS Arighat.

NUCLEAR TRIAD	Nuclear Command Authority set up in 2003. Its Political Council, chaired by PM, is the sole body that can authorise use of nuclear weapons	Strategic Forces Command (SFC) to handle nuclear arsenal set up in 2003
LAND VECTOR Prithvi-II (350km), Agni-I (700km), Agni-II (2,000km) & Agni-III (3,000km) missiles inducted Agni-V (over 5,000km) in process of induction		➤ Induction of K-4 SLBMs (3,500km range) underway after completion of developmental trials ➤ Development of K-5 (5,000km) and K-6 (6,000km) SLBMs in progress
AIR VECTOR Sukhoi-30MKI, Mirage-2000, Jaguar fighters & Rafales can deliver nuclear gravity bombs		
SEA VECTOR ➤ Only 1 nuclear-powered ballistic missile submarine (SSBN), the 6,000-tonne INS Arihant. Became fully operational in Nov 2018. Armed with 750-km range K-15 nuclear missiles	6,000-TONNE INS Arighat to be commissioned soon. Will be followed by two 7,000-tonne SSBNs (called S-4 & S-4*) being built at Vizag. Over 13,000-tonne S-5 class SSBNs to be built later	

- ✓ However, the defence ministry did not mention the name of submarine-launched ballistic missile (SLBM) tested from the 6,000-tonne INS Arihant, which became fully operational in 2018.

- ✓ This is the first time the launch of an SLBM from INS Arihant has been announced by the government.
- **The seventh edition of maritime exercise, IBSAMAR – was conducted from October 10 to 12 in South Africa.**



- ✓ The nations that participated in this trilateral joint maritime exercise are India, Brazil and South Africa.
 - ✓ The Indian Navy is represented by the Teg class-guided missile frigate, INS Tarkash, a Chetak helicopter and the personnel from the Marine Commando Force (MARCOS)
 - ✓ The maritime exercise includes professional exchanges such as fire-fighting drills, damage control drills and interaction amongst the special forces of all the three nations.
 - ✓ The aim of the joint maritime exercise is to strengthen maritime security, promote joint operational training and enhance interoperability amongst the three naval forces to meet the challenge of common maritime threats.
 - ✓ The sixth edition of the IBSAMAR was held in South Africa's Simons Town from October 1-13, 2018.
 - ✓ The Indian Navy was represented by INS Tarkash and INS Kolkata during the exercises
 - ✓ The fifth edition of IBSAMAR was held in Goa during the year 2016 from February 19 to February 29
 - ✓ The Indian Navy was represented by INS Mumbai, INS Trishul and INS Shalki.
 - ✓ The trilateral maritime exercise started in 2008 to promote strategic relationship between India, Brazil and South Africa, three democracies in three different continents
 - ✓ India, Brazil and South Africa are also members of BRICS.
- **The offshore security exercise, 'Prasthan' - was conducted by Eastern Naval Command at Kakinada's Offshore Development Area (ODA) on October 11 and 12, 2022**

- ✓ The exercise, held once in every six months, witnessed the participation of various oil operators like ONGC, Reliance Ltd, Vedanta and others involved in the Maritime Security.



- ✓ It was held to assess the overall security and preparedness during the emergency situations in the Offshore Development Area, situated 40 nautical miles south of Kakinada
- ✓ The exercise enables the oil operators to validate their standard operating procedures (SOPs) and response actions in relation to various ODA contingencies.
- ✓ It focused on terrorist intrusion, bomb explosion, major fire, casualty excavation, search and rescue, man overboard, mass evacuation and oil spill.

SPORTS

- **Indian shooting star, Rudrankksh Patil - became the new world champion in the men's 10m air rifle event at the ISSF World Championships in Cairo, Egypt**
- ✓ In the process, Rudrankksh also won a berth for the 2024 Paris Olympics.
- ✓ Rudrankksh became the second Indian world champion in the 10m air rifle category after Abhinav Bindra, who won the gold in 2006.
- ✓ On October 14, Rudrankksh defeated Italy's Danilo Dennis Sollazzo in the final of 10m air rifle competition of World Championships in Cairo.
- ✓ In the ranking round, he defeated former world champ and Tokyo bronze medallist from China, Yang Haoran and Tokyo silver medallist Lihao Sheng.

WORLD CHAMPIONS FROM INDIA IN SHOOTING (SENIOR)

Shooter	Event	Year
Abhinav Bindra	10m air rifle	2006
Manavjit Singh Sandhu	Trap	2006
Tejaswini Sawant	50m rifle prone	2010
Om Prakash Mitharval	50m pistol	2018
Ankur Mittal	Double trap	2018
Rudrankksh Patil	10m air rifle	2022

Know Rudrankksh

Age: 18

Shooting since: 2015

Medals: ISSF World Championships, gold (2022), ISSF Jr World Championships, silver (2021), ISSF Junior World Cup, gold (2022), National Games, gold (2022)



- ✓ Earlier, Rudrankksh qualified for the top-8 after shooting 633.9, a World Championships record.
- ✓ However, as per the new rules, the international shooting body ISSF has discontinued world records and now has venues, World Championships and Olympics records instead.

RANKINGS

- **The Ministry of Commerce and Industry – released the ‘Logistics Ease Across Different States (LEADS) Report 2022’ on October 13, 2022**
- ✓ Union Minister Piyush Goyal released the report on the occasion of the centre’s ambitious ‘Gati Shakti National Master Plan’ completing one year of being in force on October 12, 2022



- ✓ Under the Gati Shakti initiative, different departments join together for a coordinated development of infrastructure projects, especially to address first and last-mile connectivity issues and reduce logistics costs
- ✓ The report was prepared by the department for promotion of industry and internal trade
- ✓ The fourth LEADS 2022 report ranks states and UTs on the basis of their logistics ecosystem, focusing on the key logistics-related challenges faced by the stakeholders and includes recommendations
- ✓ The index is an indicator of the efficiency of logistical services necessary for promoting exports and economic growth.
- ✓ As per the report, 15 states and Union territories that are in the “achievers” category in ensuring the ease of logistics services included Andhra Pradesh, Assam, Chandigarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Odisha, Punjab, Tamil Nadu, Telangana, Uttar Pradesh and Uttarakhand.
- ✓ Kerala, Madhya Pradesh, Rajasthan, Puducherry, Sikkim and Tripura are ranked in the “fast movers” category.

- ✓ Bihar, Chhattisgarh, Goa, Mizoram, Andaman and Nicobar Islands, Lakshadweep, Ladakh, Nagaland, Jammu and Kashmir, and Arunachal Pradesh are ranked in the “aspirers” category
 - ✓ The first logistics report was released in 2018, while no ranking was released last year due to the Covid-19 pandemic.
 - ✓ Gujarat was at the first position in both 2018 and 2019 ranking lists.
 - ✓ The government is already aiming to reduce the country’s logistics costs to 8% of its GDP in the next five years from 13-14% now.
 - ✓ Prime Minister Narendra Modi last month unveiled the national logistics policy, which aims to ensure seamless movement of goods and services across the country and cut elevated logistics costs
- **India - has moved up six places to rank 123 out of 161 countries in terms of reducing inequality, according to the 2022 Commitment to Reducing Inequality Index or CRI Index**
- ✓ The fourth edition of CRI Index monitors 161 countries' performance in reducing inequality among its population
 - ✓ It is a joint project of Oxfam International and Development Finance International.
 - ✓ Norway leads the CRI Index followed by Germany, Australia, Belgium, Canada, Japan, Denmark, and New Zealand
 - ✓ The index measures government policies and actions in three areas of inequality - public services (health, education, and social protection), taxation and workers’ rights
 - ✓ As per the report, India features among the lowest performers on health spending again after dropping to 157th, the 5th lowest in the world.
 - ✓ India’s health spending is 3.64% of total spending, which is the lowest out of all BRICS and neighbouring countries

REPORT

- **The World Wide Fund for Nature (WWF) in association with Zoological Society of London - released the ‘Living Planet Report’ for the year 2022 on October 13**



- ✓ The report is a comprehensive study of trends in global biodiversity and the health of Earth.
- ✓ There has been a 69% decline in the wildlife populations of mammals, birds, amphibians, reptiles and fish, across the globe in the last 50 years, indicated the report
- ✓ The highest decline (94%) was in the Latin America and the Caribbean region, while Africa recorded a 66% fall in its wildlife populations and the Asia Pacific showed 55% decline from 1970-2018
- ✓ North America and Europe recorded lesser nature decline, falling by 20% and 18% respectively.
- ✓ Geographically, Southeast Asia is the region where species are most likely to face threats at a significant level, while the Polar regions and the east coast of Australia and South Africa showed the highest impact probabilities for climate change
- ✓ Freshwater species populations globally reduced by 83%, while there has been a significant increase in the number of fish species (481) that have been added
- ✓ The IUCN Red List shows cycads — an ancient group of seed plants — are the most threatened species, while corals are declining the fastest, followed by amphibians.
- ✓ About 50% of warm water corals have already been lost and a warming of 1.5 degrees Celsius will lead to a loss of 70-90% warm water corals
- ✓ The Living Planet Index (LPI), featuring about 32,000 populations of 5,230 species across the world, showed that vertebrate wildlife populations are dropping at a particularly staggering rate in tropical regions of the world.
- ✓ WWF identified six key threats to biodiversity — agriculture, hunting, logging, pollution, invasive species and climate change — to highlight 'threat hotspots' for terrestrial vertebrates
- ✓ Mangroves continue to be lost to aquaculture, agriculture and coastal development at a rate of 0.13% per year, according to the findings.

- ✓ Around 137 square kilometres of the Sundarbans mangrove forest in India and Bangladesh has been eroded since 1985
- ✓ Only 37% of rivers that are over 1,000 km long remain free-flowing, or in their natural state, including rivers in India that are largely no longer free-flowing
- ✓ In 2019, 205 species from India were listed under the 'endangered', 81 in the 'critically endangered' and 394 in 'vulnerable' category on the 'red list' of the International Union for Conservation of Nature (IUCN),

