



pravahini

## Monthly Compendium

of Current Affairs by SUCCESS MANTRA (GTB Nagar)

# PREFACE

It gives us great pleasure to release the monthly edition of the PRAVAHINI – Monthly e-Compendium & Weekly e-Periodicals of Current Affairs. The magazine's members have shown considerable cooperation as well as devotion. We at successmantra.in work tirelessly to create this magazine and bring it to you with a great sense of gratitude.

The PRAVAHINI DECEMBER-2022 eBook covers the current events that happened in the month of July. Current Affairs is a crucial component of any competitive exams including CLAT, AILET, DU- LLB, HM, CAT, IAS, PCS, SSC, Banking, MBA and various other competitive examinations.

Current Affairs play the bigger role in many competitive and government exams. It holds the power of making or breaking your chance of success. Therefore, the candidates should cover the Current Affairs thoroughly and smartly.

The PRAVAHINI December-2022 eBook is divided into different sections keeping in mind the need of various exams. The sections covered namely International, National, Economy, Ecology and Environment, Science & Technology, Legal Affairs, Sports, States News Makers and few others.

We would also be pleased to receive any suggestion that could assist us with the upcoming editions.

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## Our Goal

Our goal at Success Mantra is to provide Quality education at rational price and thereby to create an environment that guides students towards the path of the success. Along with designing the curriculum and delivering the lectures, we work upon the ways the students think and approach problems asked.

*B.S. Shanti*



Success Mantra (Delhi) is the sum of small efforts, repeated day in and day out, for your accomplishment. Delhi, GTB Nagar, branch of SUCCESS MANTRA Coaching is considered as the paramount choice of Law and Management aspirants, across country. Because, at the end of the day, it is our results which speak !

Since a decade, we have delivered thousands of 'Gems Students' to the nation and persistent in doing so. It is the platform where student's ideology is developed and their dreams take the face of reality. This act is splendidly demonstrable on our result chart of applicable courses. Students from numerous junctions of India come to GTB Nagar to avail best coaching classes at rational price. The vision, of making the quality education accessible to all, is furthermore augmented by the launch of EASE VIDYA Mobile application.

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# NATIONAL AFFAIRS

## WHAT IS A NATIONAL BAMBOO MISSION?

Recently, the *Ministry of Agriculture has formed an Advisory Group for streamlining* the development of the Bamboo sector under the restructured National Bamboo Mission (NBM).



### What is the National Bamboo Mission?

- The **restructured National Bamboo Mission (NBM)** was launched during 2018-19 as a Centrally Sponsored Scheme (CSS).
- NBM mainly focuses on the development of the complete **value chain of Bamboo sector** to link growers with consumers starting from planting material, plantation, creation of facilities for collection, aggregation, processing, marketing, micro, small & medium enterprises, skilled manpower and brand building initiative in a cluster approach mode.
- **Objective:** To increase the area under bamboo plantation in non-forest Government and private lands to **supplement farm income and contribute towards resilience to climate change.**

**Nodal Ministry:** The Ministry of Agriculture & Farmers Welfare.

## STATUS OF WOMEN IN JUDICIARY

Recently, the **Supreme Court has recently appointed a female all-woman bench for the third time** in its history. The first time the Supreme Court had an all-woman bench was in 2013, and the second occasion came in 2018.

### What is the State of Women in Judiciary?

- During the last 70 years, **no significant attempt has been made to provide adequate representation for women in the High Courts or Supreme Court.** There have been only 11 women judges on the Supreme Court since its inception, and no women Chief Justices.
- Just 83 of the 680 judges in the high courts are women. Only 30% of subordinate judges are female.

### Why is High Women's Representation Important?

- The **presence of women as judges and lawyers**, will substantially improve the justice delivery system. Women bring to the law a different perspective, one that is built upon their experience. They also have a more nuanced understanding of the differing impacts that certain laws may have on men and women.
- **Women judges enhance the legitimacy of courts, sending a powerful signal that they are open and accessible to those who seek recourse to justice.** The judiciary must be better represented by women in order to take a balanced and empathic approach to cases surrounding sexual violence.

## KIRIT PARIKH COMMITTEE REPORT ON GAS PRICING

The **Kirit Parikh panel** recently submitted a report on gas pricing, recommending complete pricing freedom from January 1, 2026.

### What are the key recommendations of the panel?

- The committee recommended that **India should have completely free and market-determined pricing of natural gas extracted from legacy fields**, which account for over 70 per cent of the total natural gas produced in India.
- The panel recommended linking the price of gas produced from legacy fields to imported crude oil prices rather than benchmarking them to gas rates in global markets. The arrived rates will be subject to a floor and ceiling.
- The **panel recommended a price band of 4 to 6.50 USD per unit for gas from the old legacy field**. This means that the state producers ONGC and Oil India Limited will be paid a price linked to imported oil but will have a minimum or floor price of 4 USD per million **British thermal unit (mmBtu) and a ceiling price of 6.5 USD per mmBtu**.
- A fixed band of pricing will create predictable pricing for producers and moderate pricing of CNG and piped cooking gas.
- The panel also recommended increasing the ceiling rate **for the gas from legacy fields by 0.5 per mmBTU**.
- It recommended market-determined pricing for gas produced from legacy fields by January 1, 2027. It did not recommend any changes in the existing pricing formula for fields in difficult geology like KG-D6 of Reliance Industries.

## AMENDMENTS IN PREVENTION OF MONEY LAUNDERING ACT

**In its recent amendment, the Central Government listed 15 government bodies** that are required to share information with the Enforcement Directorate under the **Prevention of Money Laundering Act (PMLA)**. The list was amended in accordance with Section 66 of the PMLA.



- ***The government entities that were recently included to share information with the Enforcement Directorate are:***
  - National Investigation Agency (NIA)
  - Serious Fraud Investigation Office (SFIO)
  - State Police
  - Director General of Foreign Trade (DGFT)
  - Ministry of External Affairs (MEA)
  - National Intelligence Grid
  - Central Vigilance Commission (CVC)
  - Defence Intelligence Agency
  - National Technical Research Organisation (NTRO)
  - Military Intelligence
  - Wildlife Crime Control Bureau
  - Competition Commission of India (CCI)
- Under Section 66 of the Act, 15 entities are bound to disclose and share case information to the ED if the investigation falls under its jurisdiction. The information shared can be used by the Enforcement Directorate to file a case under the PMLA when it deems fit.

## WHAT IS 2AFRICA PEARLS?

**Bharti Airtel and Meta** have decided to jointly invest in a global connectivity infrastructure project that would extend the **2Africa Pearls (a subsea cable) to India**.

- The **2Africa Pearls** is one of the largest subsea cable systems in the world. Its purpose is to provide faster internet connectivity to over 3 billion people by connecting Africa, Europe, and Asia.
- When this **37,000-km-long subsea cable** was launched in 2020, it connected 23 countries. In 2021, the tech giant Meta announced a new segment of **2Africa Pearls in collaboration with regional partners**.
- The extension project seeks to cover landing locations in **Oman, UAE, Qatar, Bahrain, Kuwait, Iraq, Pakistan, India, and Saudi Arabia**.
- The extension will increase the total length of the 2 Africa cable system to more than 45,000 km, making it the **world's longest subsea cable system**. In its entirety, this subsea cable will significantly increase connectivity within and outside Africa.

## WHAT IS VIZHINJAM PORT PROJECT?

Recently, **Adani Group** approached the **Kerala High Court** requesting the security cover of central forces in its port **construction site in Vizhinjam** which was marred by violent protests by the Fishermen.



### What is the Vizhinjam Port Project?

- It is a **Rs 7,525 crore port**, being built under a Public Private Partnership (PPP) model with Adani Ports Private Limited at Vizhinjam near Thiruvananthapuram, Kerala.
- It was laid in December 2015 and has since missed its completion deadline. The port is to have 30 berths, and **will be able to handle giant “megamax” container ships**.
- Significance: It is believed that the ultramodern port, located close to major international shipping routes, will boost India's economy and its location is also of strategic importance.
- The port is expected to compete with **Colombo, Singapore, and Dubai for a share of trans-shipment traffic**.

## AAP TO BECOME NATIONAL PARTY OF INDIA

The **Aam Aadmi Party (AAP)** has scored enough votes in Gujarat in the recent elections to get the “national party” status.



- A **national party** is a **political party** having national presence, as opposed to regional parties, whose presence is restricted to a specific region or a state.
- **National parties include those that are the biggest in India (BJP and Congress)** as well as smaller parties that do not necessarily have a lot of national political influence (communist parties).
- The **ECI has provided technical criteria for a party to be recognized as a national party**. A political party may lose or gain the status based on its fulfillment of the following criteria:
- The **party is “recognized” in at least four states; or Its candidates polled at least 6 per cent of total** valid votes in any of the four or more states in the last Lok Sabha or State Assembly elections and has at least 4 MPs in the last Lok Sabha polls; or If the party has won at least 2 percent of the total seats in the Lok Sabha from at least 3 states.

## RAJYA SABHA WELCOMED ITS NEW CHAIRMAN

Recently, **Rajya Sabha (RS) welcomed its new Chairman, Jagdeep Dhankhar.**

- The Vice-President is the ex-officio chairman of the Rajya Sabha. The Vice-President as Chairman of the Rajya Sabha is the unchallenged guardian of the eminence and dignity of the House.

### Constitutional Provisions:

- **Article 64:** The Vice-President shall be ex officio Chairman of the Council of States and shall not hold any other office of profit.
- **Article 89 of the Constitution provides provision for the Chairman (Vice-President of India) and the Deputy Chairman of the Rajya Sabha.**

### Power and Functions:

- The **Chairman of the Rajya Sabha** is empowered to adjourn the House or to suspend its sitting in the event of the absence of quorum.
- The **10th Schedule of the Constitution empowers the Chairman to determine the question** as to disqualification of a member of the Rajya Sabha on the ground of defection; The Chairman's consent is needed to raise a question of breach of privilege in the House.

**Parliamentary Committees**, *regardless of whether set up by the Chairman or by the House*, work under the direction of the Chairman.

## 'IN PRINCIPLE' APPROVAL FOR 21 GREENFIELD AIRPORTS

The Central Government has recently accorded **"In Principle" approval for setting up 21 greenfield airports across India.**

- A **greenfield airport is one that is built from scratch on undeveloped land, where no work has been done in the past. This airport** is built to minimize the congestion at the existing airports.
- Usually, it is at a greater distance from the city and constructed in a way that special consideration is given to the environmental impact.
- The **Greenfield Airports (GFA) Policy, 2008** governs the development of greenfield airports in India.
- According to this policy, a state government or an airport developer, who is willing to set up a greenfield airport, is required to send the proposal to the Union Ministry of Civil Aviation for a two-stage approval i.e., **Site-Clearance approval and "In Principle" approval.**
- The proposals provided by the state government or airport developer are **considered by the Civil Aviation Ministry based on the procedures provided by the GFA Policy, 2008.**
- The responsibility of implementing and funding of the greenfield airport projects lies with the concerned proponents of the project (**airport developer or state government**).



## FIRST STATE TO LAUNCH OWN CLIMATE CHANGE MISSION



Tamil Nadu is set to become the first state to launch its own Climate Change Mission. It had launched the Green Tamil Nadu Mission last September and the Tamil Nadu Wetlands Mission this August. A Special Purpose Vehicle—the **Tamil Nadu Green Climate Company (TNGCC)**—will implement the State Climate Action Plan.



### Key Goals of This Mission:

- To formulate plans to reduce overall greenhouse gas emissions in the **state, increase the use of public transport, develop strategies to cut emissions by using green and renewable energy**, increase forest cover, and manage waste effectively.
- The goals also embrace ways to mitigate the impact of climate change, access financial resources for adaptation, initiate climate education in educational institutions, and focus on climate action for women and children.

## ALL INDIA INSTITUTE OF AYURVEDA

**Prime Minister Narendra Modi** virtually inaugurated the Goa-based All India Institute of Ayurveda. He also addressed the **9th World Ayurveda Congress (WAC)** and Arogya Expo.



- **All India Institute of Ayurveda (AIIA)** is a tertiary care facility situated in New Delhi. It was set up by the Central Government along the lines of the **All India Institute of Medical Sciences (AIIMS)**.
- It was established as an apex institute to bring synergy between **Ayurveda and modern diagnostic tools and technology**.
- It offers care in 36 areas of specialization like **panchakarma, food, lifestyle, yoga, and Ayurveda, as well as diagnostic support using cutting-edge diagnostic equipment, like an ICU**. Since its inauguration in 2017, it has provided services to as many as 15 lakh patients.

## NATIONAL MISSION FOR CLEAN GANGA (NMCG)

Recently, the **Union Minister for Jal Shakti** chaired the 10th meeting of the Empowered Task Force (ETF) of **National Mission for Clean Ganga (NMCG)**.



- As **part of its flagship Namami Gange programme**, the Union government has shifted its focus from improving sanitation to conservation, tourism, and economic development of the Ganga river.

### What are the Recent Developments in Ganga Rejuvenation?

- **Ministry of Tourism working on a comprehensive plan for development of tourism circuits along Ganga in line with Arth Ganga**. 'Arth Ganga' implies a sustainable development model with a focus on economic activities related to Ganga.
- Exhibitions & Fairs across 75 towns along Ganga River planned as part of Azadi ka Amrit Mahotsav. Ministry of Agriculture & Farmers' Welfare (MoA&FW) undertaking various steps to build organic farming and natural farming corridors along River Ganga.

## INS MORMUGAO SET TO BE COMMISSIONED

**INS Mormugao** is set to be commissioned by **Union Defence Minister Rajnath Singh** on the eve of the Goa Liberation Day 2022.

- INS Mormugao is the **second ship of the Visakhapatnam-class stealth guided missile destroyers of the Indian Navy.**
- Named after the port city in Goa, this stealth destroyer is 163 meters long and 17 meters wide, with a displacement of 7,400 tonnes and a maximum speed of up to 30 knots (around 55 km per hour).
- The vessel is made of **75 percent of indigenous content, and fitted with a myriad of indigenous equipment and major indigenous weapons.** It is the second ship built under Project 15B, which has an overall cost of Rs.35,800 crore.



## HPV VACCINE FOR PREVENTING CERVICAL CANCER

India is planning to **launch HPV vaccine for preventing cervical cancer in 2023** for girls aged 9 to 14 years.

- Cervavac is a quadrivalent vaccine that is capable of preventing cervical cancer through the immunization process. It is known as a quadrivalent vaccine since it is capable of providing immunization against four different strains of HPV – 6, 11, 16 and 18.
- It is India's first indigenously developed Quadrivalent Human Papillomavirus vaccine (qHPV).
- It was developed by the Pune-based Serum Institute of India (SII) in collaboration with the Department of Biotechnology (DBT), **Science and Technology Ministry, and the Bill and Melinda Gates Foundation.**
- Until the launch of this vaccine, there were only two international HPV vaccines – **Gardasil vaccine (first ever vaccine approved by the FDA in 2006) and Cervarix.**

## INDIA & BANGLADESH CELEBRATED VIJAY DIWAS

Every year **16th December is observed by Indian Armed Forces and Bangladesh as Vijay Diwas (Bijoy Dibos)** to mark India's victory over Pakistan in the 1971 war and the birth of Bangladesh as an independent nation.

- Pakistan right after India's independence consisted of **East and West Pak where a major problem was the geographical disconnect** between the two regions.
- Cultural conflicts and negligence of **East Pak's administration were also challenges. In the mid-1960s, leaders such as Sheikh Mujibur Rahman (the founding father of Bangladesh),** actively began protesting against the policies of West Pak which was followed by a brutal crackdown by the Pakistani military.



**India's Role:** On 15 May 1971, India launched Operation Jackpot to recruit, train, arm, equip, supply and advise Mukti Bahini fighters engaged in guerrilla warfare against the Pakistan military.

- On 3rd December 1971, India decided to go on a war with **Pakistan to save Bengali Muslims and Hindus in East Pakistan.**

## OPEN NETWORK FOR DIGITAL COMMERCE (ONDC)

Open Network for Digital Commerce (ONDC) will charge a “small fee” from platforms that will contribute towards “maintenance and development” of the network.

- The **network will seek to reduce the compulsory commissions charged** from sellers and logistics partners on the network by private e-commerce firms such as US-based Amazon and homegrown Flipkart — the two largest e-commerce firms in the country.

## What is ONDC?

- It is an **open e-commerce protocol set up by the** Ministry of Commerce’s Department of Promotion of Industry and Internal Trade (DPIIT).
- Under ONDC, it is envisaged that a buyer registered on one participating e-commerce site (for example, Amazon) may purchase goods from a seller on another participating e-commerce site (**for example, Flipkart**).

## PRADHAN MANTRI VIRASAT KA SAMVARDHAN (PM-VIKAS)

**Pradhan Mantri Kaushal Ko Kaam Karyakram (PMKKK)** has been named as Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme by the Ministry of Minority Affairs.



## What are the Key Points of the Scheme?

- It is a **Central-Sector Scheme**, which focuses on the skilling, entrepreneurship and leadership training **requirements of the minority and artisan communities across the country**.
- This is an **integrated scheme** that converges five erstwhile schemes of the Ministry of Minority Affairs viz:
- **Seekho aur Kamao**: This is a placement linked skill development scheme for minorities aiming to upgrade the skills of minority youth in various modern/traditional skills depending upon their qualification, **present economic trends and market potential**
- **USTTAD** (Upgrading the Skills & Training in Traditional Arts/Crafts for Development): It aims to promote and preserve the rich heritage of the traditional arts & crafts of the minority communities.

**Hamari Dharohar**: It has been formulated to preserve rich heritage of minority communities of India.

**Nai Roshni**: It is a **Leadership Development Programme** for women belonging to minority communities **in the age group of 18 to 65 years**. It was started in 2012-13.

## INDIAN FOOTWEAR AND LEATHER DEVELOPMENT PROGRAMME

Union Government has approved the continuation of the Scheme ‘**Indian Footwear and Leather Development Programme (IFLDP)**’ till 31st March 2026 or till further review.

- IFLDP was approved as continuation of the erstwhile IFLADP (**Indian Footwear Leather and Accessories Development Programme**).



## What is IFLDP Scheme?



- It is a **Central Sector Scheme**, which aims at development of infrastructure for the leather sector, address environmental concerns specific **to the leather sector, facilitate additional investments, employment generation and increase in production**. It was launched by the **Department for Promotion of Industry and Internal Trade** under the Ministry of Commerce and Industry.

## WHAT IS DISHA SCHEME?

Recently, the Minister of Law and Justice has informed Lok Sabha that **“Designing Innovative Solutions for Holistic Access to Justice” (DISHA) Scheme** was launched for a period of five years 2021-2026.

### What is DISHA Scheme?

- It was launched in order to provide a comprehensive, holistic, integrated and systemic solution on access to justice at pan India level. **It aims to secure “Justice”** to the people of India as enunciated in the Preamble and under Articles 39A, 14 and 21 of the Constitution of India.
- It aims to design and consolidate various initiatives to provide citizen- centric delivery of legal services.
- Components: There are **three components under DISHA at present**,
- **Tele-Law: Reaching the Unreached:** To strengthen pre litigation legal advice and consultation, the Tele-Law Service connects the citizen with the Panel lawyers through the use of **video /Teleconferencing facilities available at the Common Service Centres (CSCs) and via Tele-Law Mobile App**.
- **The Nyaya Bandhu Programme:** The Nyaya Bandhu (Pro Bono Legal Services) programme aims to provide free legal assistance and counsel to the marginalized sections.
- **Legal Awareness Programmes:** To provide for a more robust framework, Legal Service Institutions network at the National, State and District and Taluk level, constituted under the Legal Services Authorities, Act, 1987.
- **Information Education and Communication (IEC):** In order to ensure its widened reach, a dedicated Information Education and Communication (IEC) including (Technology) component has been embedded in DISHA.

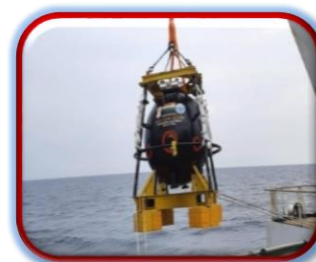


## WHAT IS SAMUDRAYAAN MISSION?

According to the Ministry of Earth Science, the Samudrayaan Mission is expected to be realized by the year 2026.

### What is Samudrayaan Mission?

- The mission is aimed at sending three personnel to 6000-meter depth in a **vehicle** called ‘**MATSYA 6000**’ for the exploration of deep-sea resources like minerals.
- ‘**MATSYA 6000**’ vehicle is being designed and developed by **National Institute of Ocean Technology (NIOT)**, Chennai under Ministry of Earth Sciences. It has an endurance of 12 hours under normal operation and 96 hours in case of emergency for human safety.



## KARNATAKA GOVERNMENT NEW STARTUP POLICY

**Karnataka's government has introduced a new startup policy (2022-27)** aiming to add around 10,000 startups to the state's business ecosystem in the next five years, with a focus on high-growth startups.

- The policy, which was **introduced on 22nd December 2022**, aims to stimulate the growth of around 25,000 startups in the coming five years, particularly focusing on increasing the number of high-growth startups.
- The new policy, which has been framed by the Department of Electronics and IT/BT, aims to position Karnataka as **the "Champion State"** for startups and further increase the number of high-growth startups by 2027.
- The policy will create an enabling environment for growing startups and make the state an innovation hub. It **will also provide a conducive environment and ideal business environment for growth for tech-enabled startups** operating outside of Bengaluru.

## UTTAR PRADESH RENAMED TWO PLACES

Stage is all set in Uttar Pradesh to rename two places **after the state government got the approval by Union Home Ministry.**

- The Union Home Ministry has given its consent to change the names, a **Municipal Council in Gorakhpur and a village in Deoria, both in eastern UP**, following recommendations from the state government.
- The 'no-objection' certificates were issued by the Union Home ministry for **changing the name of 'Mundera Bazar' municipal council in Gorakhpur district to 'Chauri-Chaura'** and that of 'Telia Afghan' village in Deoria district to 'Telia Shukla'.



### Why did the Mundera Bazar Municipal Council name change?

- **Mundera Bazar Municipal Council** will now become Chauri-Chaura Municipal Council to commemorate 100-years of the Chauri-Chaura incident which had taken place on February 4, 1922 in Gorakhpur district. The **police under British rule had opened fire on a large group of protesters** then participating in the Non-Cooperation Movement called by Mahatma Gandhi.
- Consequently, the demonstrators had retaliated by setting a police station ablaze killing all of its occupants. The incident led to the death of three civilians and 22 policemen.

### Why did Telia Afghan village name change?

- As per the local sources in **Deoria, Telia Afghan village is already popular as Telia Shukla village** under Barhaj tehsil of the eastern UP district.
- However, in land revenue records, it is **registered as Telia Afghan which will now be changed to Telia Shukla.**

## WHAT IS INS ARNALA?

The Indian Navy launched the indigenously-built ship INS Arnala at the shipbuilding facility of Larsen & Toubro (L&T) in Chennai's Kattupalli.

- Arnala is the first of the 8 anti-submarine warfare shallow water craft (ASW-SWC) that are currently being built by the Garden Reach Shipbuilders and Engineers Ltd (GRSE).
- The **vessel made its first contact with the water of the Bay of Bengal** during a recently-held launch ceremony in Chennai. The launch ceremony is one of the four important ceremonial occasions associated with a ship's life.
- The other **three are keel laying, commissioning and decommissioning.**



## About 'Arnala' class ships

- The '**Arnala**' class ships are being built to replace the Indian Navy's '**Abhay**' class ASW ships. The contract for building these ASW-SWC ships was signed in 2019 by GRSE and the Union Defence Ministry.

## 5TH SCORPENE CLASS SUBMARINE INS VAGIR

Recently, the **5th Scorpene class submarine of Project-75 named INS 'Vagir'** has been delivered to the Indian Navy today. It is a Kalvari class diesel-electric attack submarine, Yard 11879, which when commissioned will be christened INS Vagir.



## What is INS Vagir?

- The **first Vagir, a submarine from Russia**, was commissioned into the Indian Navy on 3rd December 1973 and was decommissioned on 7th June 2001 after almost three decades of service to the nation.
- **Public shipbuilder Mazagon Dock Ltd (MDL)** gave a new incarnation to the submarine with the same name. It is named after the Sand Fish, **a deadly deep-sea predator of the Indian Ocean.** It is a part of the six Kalvari-class submarines being built in India.

## WHAT IS AYURSWASTHAYA YOJANA?

Ayush Ministry is currently running a Central Sector Scheme titled AYURSWASTHYA Yojana.

## What is AYURSWASTHYA Yojana?

**It has two components:**

- **AYUSH and Public Health:** To promote AYUSH intervention for community health care.
- **Up-gradation of facilities to Centre of Excellence:** To support establishment of advanced/specialized AYUSH medical health units in reputed AYUSH and Allopathic institutions both in Government and Non-Government sector.
- **Funding:** The maximum admissible financial assistance under the Centre of Excellence component of **AYURSWASTHYA Yojana**, to an organization/institute is Rs.10.00 crores for a maximum period of three years.





The central government has unveiled a plan for the conservation of Asiatic lions in Gir, a region in Gujarat. Titled **“Lion@47: Vision for Amrutkal”** the plan is part of Project Lion and aims to secure and restore habitats to manage the growing lion population.

- It also aims to **generate livelihoods for local communities, establish** a global hub of knowledge on big cat disease diagnostics and treatment, and promote inclusive biodiversity conservation.
- The main objectives of Project Lion are to secure and restore habitats for the management of the growing lion population, scale up livelihood generation and participation of local communities, establish a global hub of knowledge on big cat **disease diagnostics and treatment, and create inclusive biodiversity conservation through the project initiative.**

## Comparison to Project Tiger

- **Project Lion is being implemented in the Gir landscape in Gujarat**, which is the last remaining habitat of Asiatic lions.
- In contrast, Project Tiger is being implemented in 53 tiger reserves across the country. Both projects aim to ensure the overall conservation of the ecosystems inhabited by these flagship species.

## WHAT IS PROJECT VAANI?

**Project Vaani** will be implemented jointly by the Indian Institute of Sciences (IISc), **ARTPARK (AI and Robotics Technology Park)**, and Google to gather speech data from across India for the creation of an AI-based language model that can understand diverse Indian languages and dialects.

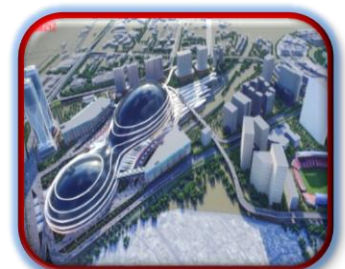


- Under Project Vaani, diverse languages used across India will be mapped by collecting speech sets of around 1 million people from 773 districts over 3 years.
- The **estimated cost of this project is around 30 to 40 million USD**. It is part of the Bengaluru-based IISc and Artpark's Bhasha AI project that includes **RESPIN (Recognizing Speech in Indian languages)** and SYSPIN (Synthesizing Speech in Indian languages).
- The project would involve IISc and **Google recording around 1.5 lakh hours of speech, part of which will be transcribed in local scripts.**
- This project uses a district-anchored approach, **which involves recording local speeches by randomly selecting over 1,000 people from each district.**

## WHAT IS AMRIT BHARAT STATION SCHEME?

The Union Ministry of Railways has launched a new scheme called **Amrit Bharat Station Scheme** to modernize railway stations across India.

- *The Amrit Bharat Station Scheme has several broad objectives. These are:*
- The **preparation and implementation of master plans for railway stations** to enhance the facilities beyond the minimum essential amenities and creating roof plazas and city centers at the station premises in the long-term.



- Meet the needs of all stakeholders based on the funding availability and inter-se priority. The scheme will cater to the upgradation and replacement of existing amenities as well as the introduction of new amenities
- It will cover stations that have undergone detailed techno-economic feasibility studies. **However, the roof plazas in these stations** will not be constructed in the near term as reallocation of structures and utilities is given higher priority.

## WHAT IS THE 'PRASHAD SCHEME'?

Recently, the President of India laid the foundation stone for the project 'Development of Pilgrimage Facilities at Bhadrachalam Group of Temples' in Telangana.



- Another project named 'Development of Pilgrimage and Heritage Infrastructure at **Rudreshwara (Ramappa) Temple**' was also laid later on.
- Both these projects have been **approved under the PRASHAD Scheme** of the Ministry of Tourism, Government of India.

## What is PRASHAD Scheme?

The '**National Mission on Pilgrimage Rejuvenation and Spiritual Augmentation Drive**' (PRASAD) was launched by the Ministry of Tourism in the year 2014-15 with the objective of holistic development of identified pilgrimage destinations.

- The name of the scheme was changed from PRASAD to "**National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD)**" in October 2017.
- After the discontinuation of the HRIDAY scheme of the Ministry of Housing and Urban Development, the development of Heritage destinations was included in the PRASAD Scheme, **changing it to PRASHAD**.

## MANGDECHHU HYDROELECTRIC POWER PROJECT

The 720 Megawatts Mangdechhu Hydroelectric Power Project, which was implemented with the assistance from India, was recently handed over to the **Druk Green Power Corporation (DGPC)** in Bhutan. With this handing over, the two countries have successfully completed four mega hydroelectric power projects.

- **The 720 MW Mangdechhu Hydroelectric Power Project** was jointly inaugurated by Indian Prime Minister Narendra Modi and his Bhutanese counterpart Lotay Tshering in 2019.
- The **Indian Government provided the financial and technical assistance** for the construction of this hydroelectric project. The commissioning of this hydroelectric power project has increased the electrical power generation capacity of Bhutan by 44 per cent and it is currently at 2,326 Mega Watts.
- The **project has generated more than 9,000 million units of energy since the commissioning**, bringing down 2.4 million tonnes of carbon emissions each year.

## 1ST STATE TO PASS THE LOKAYUKTA BILL, 2022

**Maharashtra assembly has passed the Lokayukta Bill 2022**, which brings the chief minister and council of ministers under the ambit of the anti-corruption ombudsman.

- The bill was passed without discussion as the opposition had staged a walkout over the alleged scam in the Teachers Entrance Test.



### About the bill:

- **According to the Bill, the Lokayukta** will have to seek the approval of the assembly before initiating any inquiry against the chief minister and bringing a motion before the session of the house.
- According to the provisions of the Bill, such a proposal would require the approval of **at least two-thirds of the total members of the Maharashtra Legislative Assembly**.
- The Bill also states that the Lokayukta will not investigate cases involving allegations of corruption against the Chief Minister, which are related to internal security or public order.
- **Parliamentary committees** have concluded that drafting a **National Tourism Policy** will not lead to the development of the tourism industry in the country.
- The **committee has suggested fast-tracking the creation of a National Tourism Council** on the lines of the GST council to directly make recommendations to the Central and State governments on various issues of the tourism sector and its stakeholders.

### What are the Concerns raised by the Committee?

- **Inclusion in the Concurrent List:** The committee also sought to know the steps taken by the Tourism Ministry regarding its earlier recommendation of including tourism in the concurrent list.
- **Industry Status to Hospitality Projects:** It also sought to know why some 20 States were yet to accord industry status to hospitality projects and asked the Ministry whether anything in this regard has been conveyed by these States to the Centre.



## WHAT IS TRIPLE TEST SURVEY FOR RESERVATION?

The **Allahabad High Court** had ordered the Uttar Pradesh Government to conduct urban local body elections without the OBC reservations as **the “triple test” requirement for the quota has not been fulfilled**. The state government has recently constituted a commission to conduct the triple test survey in the urban local bodies.



The Supreme Court put forth the triple test in the case **Vikas Kishanrao Gawali vs. State** of Maharashtra and others on March 2, 2021. It involves the government implementing three tasks to finalize the reservation to the OBCs in the local bodies.

### These tasks are:

- Constitute a dedicated commission to conduct a rigorous **empirical study into the nature and implications of the backwardness in local bodies** to specify the proportion of reservation required in local bodies based on the commission's recommendations.
- To ensure that the reservations for SCs, STs and OBCs together do not surpass the aggregate of 50 percent of the total seats.

# INTERNATIONAL AFFAIRS

## WHAT IS WASSENAAR ARRANGEMENT?

Recently, on 26th annual plenary of the Wassenaar Arrangement in Vienna, Ireland handed over the **chairmanship to India** and **India will officially assume the chairmanship from 1st January, 2023.**



### What is Wassenaar Arrangement?

- The **Wassenaar Arrangement is a voluntary export control regime.** The Arrangement, formally established in July 1996, has 42 members who exchange information on transfers of conventional weapons and dual-use goods and technologies. Dual-use refers to **the ability of a good or technology to be used for multiple purposes - usually peaceful and military.**
- **Wassenaar Arrangement's Secretariat is in Vienna, Austria.**
- **Members:** It has 42 member states comprising mostly NATO (North Atlantic Treaty Organization) and EU states.
- **Participating States** are required to report their arms transfers and transfers/denials of certain dual-use goods and technologies to destinations outside the Arrangement on a six-monthly basis.
- **India became a member of the Arrangement in 2017.**

### Objectives:

- The **group works by regularly exchanging information in respect of technology**, both conventional and nuclear-capable, that is sold to, or denied to countries outside the grouping. This is done through maintenance and updating of detailed lists of chemicals, technologies, processes and **products that are considered militarily significant.**

## UN RECOMMENDATIONS ON GREAT BARRIER REEF

A **UN panel recommended the listing of Australia's Great Barrier Reef** as a world heritage site that is "in danger".

- The **Great Barrier Reef is the world's biggest coral reef ecosystem**, having over 2,900 individual reefs, 900 islands and an area covering some 344,400 square kilometers. **It is situated off the coast of Australia's Queensland.**
- It is one of the world's largest biodiversity hotspots and largest carbon sinks. **It is supporting some 64,000 jobs and provides a large amount of revenue for the Australian economy.**

### Why is the Great Barrier Reef in danger?

- The **Great Barrier Reef is significantly affected by the climate crisis.** It is adversely impacted by frequent bleaching events, including the four that occurred over the last 7 years and the first during this year's La Nina phenomenon, which is typically the time when temperature becomes cooler.
- Coral bleaching occurs when the water temperature increases, causing the **corals to expel the colorful algae living in their tissues and turn white.**

- While corals can survive bleaching events, their growth becomes stunted and their reproduction is affected. Frequent bleaching has made many reefs sterile. **Their** resilience has been affected because of climate change and the degraded water quality.

## AUSTRALIA-INDIA CENTRE FOR ENERGY (AICE)

The Indian Institute of Technology (IIT) Madras and Australian Universities are collaborating to launch the Australia-India Centre for Energy (AICE) to work on the 2030 SDGs.



### What is Australia-India Centre for Energy (AICE)?

- The **Australia-India Centre for Energy (AICE)** is a virtual center that will promote collaboration among universities, research institutes and industry from India and Australia in the energy domain. It will be launched during the two-day Energy Summit 2022 that **will be hosted by IIT Madras in December 2022.**
- The main objective of this center is to deepen bilateral collaboration between India and Australia in the energy sector through transformative research, technology development and deployment.
- It **aims to become a leading bilateral platform on SDG 7** and other related SDGs for academics, industries and government agencies to engage in science, technology, economics, policy and governance.
- **The collaboration under the AICE will be led by IIT Madras and Deakin University in Australia.** The two institutes will be coordinating and driving the engagement among the partners and external stakeholders. The initiative will help promote collaboration between government entities, **funding agencies and individual researchers in India and Australia.**

## JAPAN, ITALY & UK TO DEVELOP 6TH GEN. FIGHTER JETS

**Japan has announced that it will jointly develop its next-generation fighter jet with the United Kingdom and Italy** as it looks to expand defense cooperation beyond its traditional ally, the United States. The **Mitsubishi F-X fighter jet will replace the aging fleet of F-2s** that Japan previously developed with the United States.

- The nations will merge their current plans for development of **next-generation planes – the F-X and Britain's Tempest**, a successor to the Eurofighter Typhoon – to produce the new combat aircraft for deployment in 2035.
- The deal will give Japan greater support in countering China's growing assertiveness and allow Britain a bigger presence in the Indo-Pacific region.
- The announcement came after Prime Minister Fumio Kishida set spending targets aimed at building up Japan's military capability, **including a huge boost in defense spending over the next five years.**
- **Need of This Move:** To counter growing threats from China and North Korea, Japan has been expanding its defense partnerships with countries in the **Indo-Pacific, including Australia, with Southeast Asian countries and with Europe.**

## INDIA AS VOICE OF GLOBAL SOUTH

As **India assumed the G20 Presidency**, the **External Affairs Minister** of India iterated the country's role as the "voice of the Global South", that is otherwise under-represented in global forums.



## What is Global North and Global South?

- 'Global North' refers loosely to countries like the US, Canada, Europe, Russia, Australia and New Zealand, while 'Global South' includes countries in **Asia, Africa and South America**.
- This **classification is more accurate as the countries share similarities in terms of wealth, indicators of education and healthcare, etc.**
- Some of the South countries like India and China have emerged economically, in the last few decades. The progress achieved by many Asian countries is also seen as challenging the idea that the North is the ideal.

## SA & KENYA ANNOUNCED JUST TRANSITION INITIATIVE

**South Africa and Kenya** have recently announced the Just Transition Initiative to put an end to plastic pollution in an inclusive manner. This announcement came in the aftermath of the historic first Session of the Intergovernmental Negotiating Committee (INC) to phase out plastic.



### What is Just Transition Initiative?

- The **Just Transition Initiative** aims to phase out plastic in an inclusive manner so that the transition does **not adversely affect the concerned stakeholders**.
- It **aims to create decent jobs for waste-pickers and other workers in the plastic value chain**. The just transition means addressing the needs of everyone involved in the plastic value chain, including those employed under the informal and cooperative settings and recognizing their fundamental human dignity and historic contribution.
- It involves increasing the social and economic opportunities of ending plastic pollution while minimizing and **carefully addressing all challenges associated with the shift from plastic usage**.

## 17TH ASIA PACIFIC REGIONAL MEETING

Recently, the 17th Asia Pacific Regional Meeting (APRM) of the International Labour Organization (ILO) was held in Singapore.

### What are the Key Highlights of the Meeting?

- It brings together representatives of governments, employers' and workers' organizations from Asia, the Pacific and the Arab states.



### The four key thematic areas of the 17th APRM included:

- Integrated policy agenda for a human-centered recovery that is inclusive, sustainable and resilient
- Institutional framework to support transitions towards formality and decent work
- Strong foundations for social and employment protection and resilience
- Revitalizing productivity growth and skills for more and better jobs
- The meeting concluded with **the launch of 'Singapore Statement'**.

## CHINA RAISED DISPUTE OVER US CHIP SANCTIONS

China has recently raised a dispute with the World Trade Organisation (WTO) over the US chip sanctions.

## About the US Chip Sanctions

- In October, the United States issued new export controls preventing the sales and services by the US businesses to Chinese chip manufacturers.
- The purpose of these restrictions is to prevent China from buying and manufacturing **high-end chips with military applications, preventing the growth of China's semiconductor industry and the development of military systems.**
- This move also covers export restrictions on some chips used in supercomputers and stricter requirements on the sale of semiconductor equipment.



## JOINT MILITARY EXERCISE OF INDIA & NEPAL: SURYA KIRAN

The joint military exercise between India and Nepal, Exercise Surya Kiran XVI, is being held from December 16 to 29 this year in Nepal Army Battle School in Nepal's Saljhandi.

- Exercise Surya Kiran is a joint military exercise between the armies of India and Nepal.
- Its objectives include **improving interoperability and sharing experiences and best practices on counter-insurgency operations.**
- The inaugural edition of this bilateral exercise was held in Mizoram in 2011. Since then, it has been held each year between the two armies. **The last edition was held in Pithoragarh in Uttarakhand.**
- This **bilateral exercise is playing a major role in boosting the ties between India and Nepal.** It is also improving the mutual cooperation between both the armies and further strengthening diplomatic relations of the two countries.



## INDIA & KAZAKHSTAN JOINT EXERCISE: KAZIND 2022

The 6th Edition of India - Kazakhstan joint training exercise "KAZIND-22" is being conducted at Umroi (Meghalaya).

## What is Kazind – 2022?

- It is a joint annual training exercise with the Kazakhstan Army and **was instituted in 2016 as Exercise Prabal Dostyk**, which was later upgraded to a company level exercise and renamed as Ex Kazind in 2018.
- **Aim:** To build positive military relations, imbibe each other's **best practices and promote the ability to operate together** while undertaking counter terrorist operations in semi urban / jungle scenario.

## KUNMING MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

The **15th Conference of Parties (COP15) to the United Nations Convention on Biological Diversity (CBD)** held in Montreal in December 2022 adopted the **Kunming-Montreal Global Biodiversity Framework (GBF)**.

The GBF includes four goals and 23 targets to address the loss of biodiversity and restore natural ecosystems by 2030. The **GBF was agreed upon by representatives of 188 governments, including 95% of all Parties to the CBD**, as well as the United States and the Vatican.



- Protecting at least 30% of the world's land, water, coastal, and marine areas
  - Restoring at least 30% of degraded terrestrial, inland water, coastal, and marine ecosystems
  - Reducing or **eliminating the loss of areas with high biodiversity importance**
  - Cutting global food waste in half and reducing overconsumption and waste
  - Reducing the **use of pesticides and hazardous chemicals by half**
- **Phasing out or reforming subsidies** that harm biodiversity by at least **USD 500 billion per year** and scaling up incentives for conservation and sustainable use.
  - Mobilizing at least USD 200 billion per year in funding from all sources for biodiversity-related causes
  - Increasing international financial flows to developing countries to at least **USD20 billion per year by 2025 and at least USD 30 billion per year by 2030**.
  - Preventing the introduction of invasive species and reducing the establishment of other known or potential invasive species.

## JAPAN UNVEILED 320 BILLION USD PLAN FOR MILITARY

In a **major shift from the long-time post-war pacific approach**, Japan **unveiled a 320 billion USD plan** for a military build-up – the largest since the Second World War.



### Why is Japan planning to build up its military?

- The five-year plan, **which is to be implemented with a total budget of 320 billion USD**, will make Japan the third-largest military spender in the world after the United States and China.
- This **comes after the cabinet led by Prime Minister Kishida Fumio** approved Japan's 3 important security documents.

### Why is Japan planning to build up its military?

- The **Japanese government is concerned with the growing threats in the region**. The catalyst for this decision may probably be Russia's invasion of Ukraine and Beijing's growing belligerence, which indicates the possibility of China capturing Taiwan in the future.
- There is **also the threat of China's claim over the uninhabited Senkaku Islands** and the possibility of the Chinese takeover of those islands.

## INDIAN ORIGIN LEO VARADHKAR BECOMES IRELAND PM

Indian-origin Leo Varadkar has returned for a second term as **Ireland's Prime Minister** as part of a job-sharing deal made by the country's centrist coalition government.



- His appointment was confirmed when he received the seal of office from **President Michael D. Higgins, Ireland's head of state.**
- This is **the second time that Varadkar has been elected as Irish prime minister.** He first became the Irish prime minister in June 2017.
- In June 2020, the Fine Gael party led by Varadkar formed a coalition government with Fianna Fail and Green Party, in which he **served as deputy prime minister and Minister for Enterprise, Trade and Employment.**
- According to an agreement reached by the three parties in setting up a coalition government, **Fianna Fail party leader Micheal Martin** will first serve as Irish prime minister until December 2022 and Fine Gael party leader Varadkar will replace Martin to be the new prime minister until the five-year term of the current government comes to an end.

### About Leo Varadkar:

- **Varadkar's rise to the top of Irish politics** was remarkable in a country dominated by a strict, conservative Catholic morality well into the latter half of the last century.
- **At 38, he became the country's youngest Taoiseach as well as its first openly gay head of government and first of Indian heritage.** Varadkar was born in Dublin to an Irish mother who worked as a nurse and an Indian immigrant father, who was a qualified doctor.
- At the age of seven, a precocious Varadkar is reported to have told his mother's friends that he wanted to be the minister for health.
- After gaining a medical degree from Trinity College Dublin, he went into general practice but stayed involved in politics, and in 2007 secured election for Fine Gael in Dublin West. **In 2015, before Ireland's referendum legalising same-sex marriage, Varadkar came out publicly as gay.**

## SCOTLAND & SPAIN NEW GENDER REFORM LAWS

**Scotland and Spain** have recently passed gender reform laws to make it easier for individuals to change their **legally registered gender without requiring any medical supervision.**



### About Spain's Gender Recognition Reform Bill

- The **new Spanish law requires minors aged 12 and 13 years to receive the judge's authorization** to change their gender. Those minors aged between 14 and 16 years will have to be accompanied by their parents or legal guardians.
- Up until now, **Spanish transgender people are required to be diagnosed** with gender dysphoria, which refers to the psychological condition of not feeling a match between one's biological sex and gender identity.
- Under the new legislation, any individual applying for a **Gender Recognition Certificate** must have lived full-time in the declared identity for 3 months (6 months in case they are aging between 16 and 17 years).



- Previously, the **individual was required to have lived full-time in the declared identity for 2 years**. In some cases, the individuals were mandated to provide proof that they have been living for two years as the gender they identified with or provide records showing they have taken the hormones.
- The Bill has lowered the minimum eligibility age from 18 years to 16 years of age. It proposes a 3-month "reflection period" **during which time the applicants can change their minds**.

## Scotland's Gender Recognition Reform Bill

- The **passing of the Gender Recognition Reform (Scotland)** bill makes Scotland the first country in the United Kingdom to approve the self-identification process for changing gender.
- It makes it easier for people as young as 16 years of age, to change their legally recognized gender. It also has similar features **as that of Spain's Gender Recognition Reform Bill**.

## WHAT IS UKRAINE'S 10-POINT PEACE PLAN?

As the **deadliest conflict in Europe since World War II enters its 11th month**, Ukraine President Volodymyr Zelenskyy has outlined a **10-point peace plan to end the war with Russia**.

With **Russian President Vladimir Putin** expressing his willingness to come to the negotiating table, Zelenskyy's plan focuses on various key areas, including nuclear and energy security, food security, the release of prisoners of war and deported persons, the **implementation of the UN Charter and the restoration of territorial integrity**, the withdrawal of Russian troops and the end of hostilities, justice and reparations, and counteracting ecocide.

### The 10-point peace plan are as follows:

- Radiation and Nuclear Safety
- Food Security
- Energy Security
- Release of All Prisoners of War and Deported Persons
- Implementation of UN Charter and Restoration of Territorial Integrity
- Withdrawal of Russian Troops and End of Hostilities
- Justice, War Tribunals, and Reparations
- Counteracting Ecocide
- Humanitarian Aid
- Diplomacy and Dialogue

## WTO MINISTERIAL CONFERENCE IN ABU DHABI

The next World Trade Organization ministerial conference will be held in Abu Dhabi, United Arab Emirates in February 2024, **the global trade watch dogs confirmed in a statement**.

- **The UAE and Cameroon** were both vying to host the event and came to an informal agreement for **Abu Dhabi to host the first one and Cameroon to do the next**, trade sources said.
- For the UAE, hosting the meeting is part of its own push to position itself as **a global hub for business amid growing competition in the Middle East**. It has been rolling out bilateral trade deals with fast-growing markets since the pandemic. Next year the Gulf Arab state will host COP28, the UN's Climate Change conference.



- **Key Priorities of MC13:** The top priority for the WTO's 13th ministerial conference, known as MC13, will be reaching an agreement to **reform the trade body's hobbled dispute settlement system and modernizing its 27-year-old rulebook.**
- **Most nations want to restore the WTO's appellate body** — a sort of supreme court for trade — which the US crippled in 2019, citing systemic problems with the way its members settle trade disputes.

## SRI LANKA & RUSSIA TO BE AGREE TO UTILIZE INDIAN RUPEE

In order to facilitate international trade, **Sri Lanka has agreed to utilize the Indian Rupee (INR).** It occurs shortly after the Indian government announced it was looking into ways to include nations who are particularly short on dollars in the Indian rupee trade settlement process.

- According to reports, **banks in Sri Lanka have set up special accounts for trading in INR dubbed Special Vostro rupee accounts, or SVRA.** Additionally, the SAARC region's neighboring island country has asked RBI to support and encourage trade as well as tourism.
- **Sri Lanka has been dealing with a severe economic crisis and a shortage of dollars for almost a year.** The island nation will receive much-needed liquidity support if the Indian rupee is recognised as legal tender. **People in Sri Lanka can now hold USD 10,000 (Rs 8,26,823) in real form thanks to the establishment of Vostro accounts.**
- Additionally, Sri Lankans and Indians can transact internationally without using US dollars by using Indian rupees instead.

## JAPAN'S NEW POLICY FOR PROMOTING CARBON NEUTRALITY

Japan has **adopted a new policy promoting greater use of nuclear energy** to secure a stable power supply and reduce carbon emissions, reversing its previous plan to phase out nuclear energy by 2030.

- The new policy calls for the maximum use of existing nuclear reactors by restarting as many as possible and **extending the operating life of old reactors beyond their 60-year limit**, as well as developing next-generation reactors to replace them.
- The **Economy and Industry Ministry has drafted a plan to allow extensions every 10 years** for reactors after 30 years of operation, and to permit utilities to subtract offline periods in calculating reactors' operational life beyond the 60-year limit.
- The plan was approved by the Nuclear Regulation Authority, **paving the way for the new policy to be adopted.**

## VEER GUARDIAN EXERCISE 2023 B/W INDIA & JAPAN

The **Veer Guardian 2023 Exercise** is going to be held from January 16 to 26 next year.

- **Veer Guardian 23 will be the first-ever bilateral combat air exercise between India and Japan.** This 10-day exercise will be held between the Indian Air Force and the Japanese Air Self Defence Force (JASDF) at Japan's Hyakuri air base and Iruma air base.



- The Indian side is represented by a contingent of around **150 personnel who will be transported by two C-17 transport aircraft**. It will include 1 IL-78 mid-air refueller and 4 Su-30MKI fighters from No. 220 squadron, which comes under the Western Air Command.
- The **Japanese side will field 4 F-15s and 4 F-2 fighter jets for this bilateral exercise**.

## INDIA, AUS ECONOMIC COOPERATION & TRADE AGREEMENT

India, **Australia Economic Cooperation and Trade Agreement** comes into force from 29 December.



- India and Australia signed the Economic Cooperation and **Trade Agreement (ECTA) on the 2nd of April 2022**.
- **ECTA is the first trade agreement of India with a developed country after more than a decade**. The agreement encompasses cooperation across the entire gamut of bilateral economic and commercial relations between the two friendly countries.
- Significance of This Trade Agreement: Under this trade agreement, Indian exports will benefit from preferential zero-duty market access in Australia for 100 per cent of its tariff lines.
- It will benefit India's labor-intensive sectors such as gems and jewelry, textiles, leather, furniture, food and agricultural products, engineering products, and medical devices.

# ECONOMIC AFFAIRS

## RBI UNVEILED ITS LATEST MONETARY POLICY REVIEW

Recently, the **Monetary Policy Committee (MPC)** of the Reserve Bank of India (RBI) unveiled its latest review of the Monetary Policy.

- RBI said “growth prospects across the world are dampening. Financial markets **remain nervous and are characterized by high volatility and price swings.**”



### What are the Highlights of the Review?

- **GDP Growth Forecast:** The MPC slashed its Gross Domestic Product (GDP) growth estimate to 6.8% for the fiscal year 2022-23, from 7% earlier.
- This comes a day after the **World Bank raised its growth forecast to 6.9%** for financial year 2022-23 from a revised 6.5% in October 2022. Real GDP growth is projected at 7.1% for Q1:2023-24 and at 5.9% for Q2.
- As the data shows, **in September 2022**, it cut the GDP forecast for the full year but raised the quarterly GDP forecast.

### What is Monetary Policy Framework?

- In May 2016, the RBI Act was amended to provide a legislative mandate to the central bank to operate the country's monetary policy framework.
- **Objective:** The framework aims at setting the policy (repo) rate based on an assessment of the current and evolving **macroeconomic situation, and modulation of liquidity conditions to anchor money market rates at or around the repo rate.**

## NATIONAL SINGLE WINDOW SYSTEM (NSWS)

Union Minister of Commerce Piyush Goyal recently announced the Central Government is mulling **allowing businesses to use their permanent account number (PAN)** as a unique identifier for accessing the national single window system (NSWS) to receive different clearances and approvals from central and state governments.



- The **national single window system (NSWS)** is being developed by the Department for Promotion of Industry and Internal Trade (DPIIT) as a one-stop shop for investors to apply for various approvals from central and state governments.
- It **will act as a single online interface that can be used by businesses to identify, seek and track clearances** from various government entities.
- The system will provide the required information for receiving **various government permits for setting up and running a business facility.** This will ease the process of setting up units for businesses.



## RBI TO LAUNCH RETAIL CBDC PILOT PROJECT

After successfully launching the wholesale pilot project for central bank digital currency in November, the **RBI commenced the retail CBDC pilot project from December 1.**

- On December 1, the first phase of the retail e-rupee pilot project was launched. It initially covers four cities – Mumbai, New Delhi, Bengaluru, and Bhubaneswar, where customers and merchants can use the digital rupee (e₹-R) or e-rupee to make transactions. Four banks are controlling the launch of the retail e-rupee – **SBI, ICICI Bank, Yes Bank and IDFC First Bank.**
- The service will be expanded to include other cities like **Ahmedabad, Gangtok, Guwahati, Hyderabad, Indore, Kochi, Lucknow, Patna, and Shimla.** Four other banks – Bank of Baroda, Union Bank of India, HDFC Bank, and Kotak Mahindra Bank – will be involved in the pilot launch in these cities.
- The scope of the pilot project will be expanded gradually to **include more banks, users and locations whenever needed.**

## WORLD BANK FORECASTED INDIA'S GDP FORECAST

The **World Bank has increased India's GDP forecast for the current fiscal year** from its October estimate of 6.5 per cent to 6.9 per cent.

### World Bank's Latest Forecast

- The World Bank has raised its forecast for India's economic growth to 6.9 per cent because of the **economy's resilience while facing external challenges** as well as September quarter performance.
- Previously, it had lowered India's growth forecast for the current fiscal to **6.5 per cent from the earlier forecast of 7 per cent.**
- **Though the deteriorating external environment will have a significant impact** on India's economic growth, the economy is relatively well positioned to weather global impact compared to most other emerging economies.
- It is expected to **witnessed lower economic growth in 2022-23 when compared with 2021-22 because of several reasons like:**
  - Tightening global monetary policy cycle
  - Slowing global economic growth
  - High prices of commodities

## WHAT IS GLOBAL MINIMUM TAX?

The **European Union has adopted a plan for a global minimum 15% tax on big business.** The landmark deal between nearly 140 countries aims to stop governments racing to cut taxes in a bid to attract companies.

- It was praised by **US Treasury Secretary Janet Yellen** as **"an historic agreement which helps even the playing field"**.
- EU member states reached agreement in principle to implement at EU level the minimum taxation component, known as Pillar 2, of the OECD's reform of international taxation. **The ambassadors of EU member states decided to advise the Council to adopt the Pillar 2 directive, and a written procedure for the formal adoption will be launched.**



- **Need Of This:** Corporation tax is usually based on a company's profits. But often they might be able to pay less depending on where their offices are registered or how they invest in their business.
- The **newly-approved plan was drawn up under the guidance of the Organisation for Economic Cooperation and Development (OECD)** and already had the backing of Washington and several major EU economies.
- But the **implementation of the minimum tax in the 27-nation trading bloc** was delayed as member states raised objections or adopted blocking tactics.

## SYSTEM FOR PENSION ADMINISTRATION RAKSHA (SPARSH)

Recently, the **Ministry of Defense** has urged the stakeholders of System for Pension Administration Raksha (SPARSH) to make it more users friendly.

- **One Rank One Pension (OROP) scheme** also provides the payment of the same pension to military officers for the same rank for the same length of service, irrespective of the date of retirement.



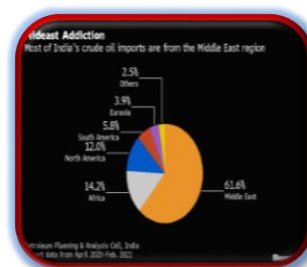
### What is SPARSH?

- It is an **integrated system for automation of sanction and disbursement of defense pension.**
- This web-based system processes pension claims and credits pension directly into the bank accounts of defense pensioners without relying on any external intermediary. **A Pensioner Portal is available for pensioners** to view their pension related information, access services and register complaints, if any.

## INDIA'S OIL DEPENDENCY ON OTHER NATIONS

**Russia has for the second month in a row remained India's top oil supplier** in November 2022 surpassing traditional sellers Iraq and Saudi Arabia.

- Russia now makes up for 22% of India's total crude imports, **ahead of Iraq's 20.5% and Saudi Arabia's 16%.**
- The European Union ban on imports of Russia's seaborne oil from 5th December has driven Russia to seek alternative markets, mainly in Asia, for about 1 million barrels per day.



### What is the Current Scenario of India's Oil Import/Consumption?

- **India is the world's third-largest oil consumer at around 5 million barrels a day**, behind the US and China. The oil demand is growing at 3-4% a year in the country.
- By this estimate, in a decade, India could be consuming about 7 million barrels a day. According to the Petroleum Planning and Analysis Cell (PPAC), India **imported 212.2 million tonnes of crude oil in 2021-22, up from 196.5 million tonnes in the previous year.**
- For April 2022-23, the oil import dependence was around 86.4% against 85.9% in the corresponding year-ago period.

## SAMARTH SCHEME OF TEXTILE MINISTRY

Under the **SAMARTH Scheme of the Textile Ministry**, more than 13,235 artisans have been trained in the last three years.



### What is the Samarth Scheme all about?

- **Samarth (Scheme for Capacity Building In Textile Sector)** is a flagship skill development scheme approved in continuation to the Integrated Skill Development Scheme for 12th Five Year Plan (FYP), Cabinet Committee of Economic Affairs.
- The **office of the Development Commissioner (Handicrafts)** is implementing the **SAMARTH** to provide skill training to handicraft artisans under the component 'Skill Development in Handicrafts Sector' of National Handicrafts Development Programme (NHDP).
- **Objectives:** To provide demand-driven, placement-oriented skilling programmes to incentivize the efforts of the industry in creating jobs in the organized textile and related sectors to promote skilling and skill up-gradation in the traditional sectors through respective sectoral divisions/organizations of the Ministry of Textile.

## CARBON BORDER ADJUSTMENT MECHANISM

The European Union (EU) member states and parliamentarians announced a landmark reform within the bloc's carbon market on December 18, 2022. This reform serves as the central plank in the EU's ambitions to reduce carbon emissions and invest in climate-friendly technologies.

- The deal includes provisions such as accelerated emission cuts, phase-out of free allowances to **industries, fuel emissions from the building and road transport sectors, and much more.**
- The **initiative that stands out the most is the carbon border tax**, which marks itself as the world's first major move aimed at making the economy carbon-neutral by 2050.
- The Carbon Border Adjustment Mechanism (CBAM), also **known as the carbon border tax**, adds a **pollution price on certain imports to the EU.**

### What Is The Carbon Border Tax?

- A carbon border tax (CBT) is a duty placed on **imports based on the amount of carbon emission that results from the production of the product in question.**
- It places a conscious price on carbon as a measure to discourage emissions. However, **from a trade-related perspective**, many have argued that it would affect production and exports.

## CEBR PREDICTED INDIA'S ECONOMIC GROWTH

In its annual '**World Economic League Table**', the London-based Centre for Economics and Business Research (CEBR) predicted that India will become the third economic superpower by 2037.



- The "World Economic League Table" is an annual publication of the CEBR. This report tracks the macroeconomic trends at the global and national levels. It presents economic forecasts for 191 countries until 2037. **The latest edition of the report had warned of an imminent global recession.**

## What are the key findings of the World Economic League Table?

- **Over the next five years**, India's GDP growth is expected to average 6.4 percent each year. After this, the GDP is expected to **grow at an average of 6.5 percent in the subsequent 9 years**.
- The **COVID-19 pandemic** has caused a devastating impact on the Indian economy in absolute terms, with India witnessing the third-highest number of deaths caused by the coronavirus.
- This has caused a significant decline in the economic growth, with the output contracting by 6.6 percent in 2020-21.

## GROSS NON-PERFORMING ASSETS (GNPA RATIO)

As **per the Reserve Bank of India (RBI)**, the Gross Non-Performing Assets (GNPA) ratio, which declined to a seven-year low of 5% in September 2022, is expected to improve further to 4.9% by September 2023.

- However, if the **macroeconomic environment worsens to a medium or severe stress scenario**, the GNPA ratio may rise to 5.8% and 7.8%, respectively.



## What are the Other Observations?

- The **ratio of GNPA to gross advances stood at 5.9% in March 2022**. As of September 2022, the Net Non-Performing Assets (NNPA) ratio stood at a ten-year low of 1.3%, wherein the Private Sector Banks (PVBs') NNPA ratio was below 1%.
- GNPA ratios of **Public Sector Banks (PSBs) may rise from 6.5% in September 2022 to 9.4% in September 2023**, whereas it would go up from 3.3% to 5.8% for PVBs and from 2.5% to 4.1% for Foreign Banks (FBs), under the severe stress scenario.

## DEPRECIATION OF INDIAN RUPEE

The **Indian Rupee depreciated by around 10% against the US dollar** and the rupee was the worst-performing Asian currency in 2022.

- This **decline was** mainly on account of appreciation in the **US currency on safe haven appeal amid fears of recession and inflation across** many parts of the world and Russia-Ukraine war.



## How did the Rupee perform in 2022?

- During the year, the **rupee fell to a lifetime low of 83.2 against the dollar**. Compared to rupee, depreciation of other Asian currencies was to a lesser extent.
- During the year, the **Chinese Yuan, Philippine Peso and Indonesian Rupiah fell around 9%**. South Korean Won and Malaysian Ringgit declined by nearly 7% and 6%, respectively.
- However, the Reserve Bank of India (RBI) heavily intervened in the forex market to defend rupee. Since the beginning of 2022, the country's foreign exchange reserves have fallen by USD 70 billion. It stood at USD 562.81 billion as of 23rd December 2022.
- Reserves have witnessed a bit of erosion but the central bank is now starting to **again build up its reserves and that would act as a buffer in times of uncertainty**.



# DATES AND DAYS

## WORLD'S AIDS DAY OBSERVED ON 1ST DECEMBER

**World AIDS Day is observed on 1st December** every year all over the world to spread awareness about the disease and remember all those who lost their lives to it.

- It was founded in 1988 by the World Health Organization (WHO) and **was the first ever global health day with a motto of raising** public awareness about Acquired ImmunoDeficiency Syndrome (AIDS).
- Theme for 2022: **'Equalize'**.
- It encourages people to unite globally to eliminate the disparities and inequities that **create barriers to HIV testing, prevention, and access to HIV care.'**



## INTERNATIONAL CIVIL AVIATION DAY OBSERVED ON 7TH DEC.

On December 7, **International Civil Aviation Day is observed globally**. The aviation industry has made a huge impact on our lives. The day is observed by the International Civil Aviation Organisation (ICAO), a United Nations (UN) body responsible for maintaining the international standards for aviation safety.



### International Civil Aviation Day: Theme

- ICAO has decided that from now until 2023, the theme of International Civil Aviation Day will be: "Advancing Innovation for Global Aviation Development". **Every five years the ICAO selects a special anniversary theme for the global day.**
- However, for the years between the anniversaries, the UN body selected a theme for four years.

### International Civil Aviation Day: History

- In 1944, **54 nations came together to sign the Convention on International Civil Aviation**, also known as the 'Chicago Convention'. The convention approves the rules of airspace, aircraft registration and safety.
- It was in 1994, as part of **ICAO's 50th anniversary that International Civil Aviation Day** was established keeping in mind that the future development of civil aviation will let the nations and people of the world bond and have friendly ties.
- The UN General Assembly then urged the governments and other relevant organizations to take relevant measures to celebrate this day.

## ARMED FORCES FLAG DAY: DECEMBER 7TH

**Every year on December 7**, India commemorates **Armed Forces Flag Day** in order to raise donations for the welfare of the Armed Forces Staff. This day is observed to honor Indian soldiers, sailors, and pilots. The day also pays tribute to hundreds of thousands of men who have died protecting the country.

- On this day, the **Indian Armed Units, comprising the Indian Army, Indian Air Force, and Indian Navy**, organize a variety of activities to highlight the achievements of our army forces and personnel.



- The **general public participates in the day's celebrations** by signing up as volunteers and assisting with the collection of cash, stickers, and other goods. **Many patriotic activities** are planned to promote public involvement and to recognise the contributions of the country's armed services.
- The money collection is managed by the local branches of the **Kendriya Sainik Board in India, which is a subsidiary of the Ministry of Defense.**
- It is **overseen by the governing committee, and** both official and unauthorized voluntary organizations keep a watch on it.

## INTERNATIONAL CHEETAH DAY OBSERVED ON 4TH DECEMBER

Every year, **International Cheetah Day** has been celebrated on **4th December** since 2010. **Dr. Laurie Marker** designated the day as International Cheetah Day in remembrance of Khayam, a cheetah she raised from a cub at **Wildlife Safari in Winston, Oregon.**



### What are the Key Facts about Cheetahs?

- The **cheetah is one of the oldest of the big cat species**, with ancestors that can be traced back more than five million years to the Miocene era. The cheetah is also the **world's fastest land mammal that lives in Africa and Asia.**
- A majority of the world's 7,000 cheetahs live in South Africa, Namibia and Botswana. Namibia has the world's largest population of cheetahs.
- The cheetah is the only large carnivore that got completely wiped out from India, mainly due to over-hunting and habitat loss. **Eight Cheetahs have been recently reintroduced in India from Namibia to Kuno National Park.**

## HUMAN RIGHTS DAY TO BE CELEBRATED ON 10TH DEC.

**Human Rights Day** is celebrated across the world on December 10 every year. It marks the day that the **United Nations General Assembly (UNGA)** adopted the Universal Declaration of Human Rights (UDHR) in 1948.



- **Human Rights Day** focuses on the fundamental rights and freedoms that people globally are entitled to simply by virtue of being humans.
- It **celebrates and advocates for rights that cut across the distinctions of nationality, gender, ethnicity, race, sexual orientation, religion, or any other status.**
- This year marks the 74th anniversary of the adoption of the UDHR and the 72nd Human Rights Day.

### Human Rights Day 2022: Theme

- On December 10, 2023, the world will mark the 75th anniversary of the UDHR. In light of this upcoming milestone, Ahead of this milestone celebration, a year-long campaign will be launched on December 10 this year to showcase the UDHR, emphasizing on its legacy, relevance, and activism. The campaign will be centered on the theme, **"Dignity, Freedom, and Justice for All."**

## INTERNATIONAL UNIVERSAL HEALTH COVERAGE DAY

**International Universal Health Coverage Day** is celebrated annually on 12th December. The day is marked to promote the importance of building robust, resilient, world-class healthcare systems globally.

- **International Universal Health Coverage Day** aims to raise awareness of the need for **strong and resilient health systems and universal health coverage with multi-stakeholder partners**.
- Each year on 12 December, UHC advocates raise their voices to share the stories of the millions of people still waiting for health, champion what we have achieved so far, call on leaders to make bigger and smarter investments in health, and encourage diverse groups to make **commitments to help move the world closer to UHC by 2030**.



### International Universal Health Coverage Day 2022: Theme

- According to the UN, this year's theme, **"Build the world we want: A healthy future for all,"** emphasizes the importance of equity, trust, healthy surroundings, investments, and accountability in order to build strong health systems.

## NATIONAL ENERGY CONSERVATION DAY: 14TH DECEMBER

**National Energy Conservation Day** is celebrated every year on 14th December 2022.

- **Ministry of Power, Government of India**, launched the National Energy Conservation Awards in 1991 to **recognise the contribution of industries and establishments in reducing energy consumption while maintaining their production through awards**.
- The Bureau of Energy Efficiency (BEE) spearheads the celebrations every year. The first time the awards **were given away was on 14th December, 1991**.
- Since then, the day has been declared as National Energy Conservation Day. **These awards are given away by eminent dignitaries at a function organised every year on the same day.**



## NATIONAL MINORITIES RIGHTS DAY: DECEMBER: 18TH

- National Minorities Rights Day is commemorated on December 18 every year in India. Its aim is to safeguard the individual rights of the religious, ethnic, racial, or linguistic minorities in the country.
- This day is a reminder about the rights of minorities and to raise awareness about it. Minority Rights Day in India is commemorated by conducting debates and seminars on topic related to minority communities.



### Minorities Rights Day: History

- The **Union Government set up the National Commission for Minorities under the National Commission for Minorities Act 1992**. Following this five religious communities have been notified as minority communities in the Gazette of India by the Union Government all around the country.
- **These religious communities are Muslims, Sikhs, Buddhists, Christians, and Zoroastrians**. The major function of this commission was and is to protect the interests of the minorities. On December

18, 1992, the United Nations adopted the day as Minorities Rights Day. **They stated that it is the responsibility of the government to improve minority conditions.**

- The state is also responsible for creating awareness about their **linguistic, national, cultural and religious identity in the country.**
- On January 29 2006, the Ministry of Minority Affairs was created as the apex body of the Central **government's developmental and regulatory programs for the minority communities.** In 2014, **Jains were also added to the list of religious communities considered as minority communities.**

## NATIONAL FARMER'S DAY OBSERVED ON 23<sup>RD</sup> DECEMBER

- December 23 is **observed as Farmers' Day or Kisan Diwas across India.** Farmers are the backbone of our economy and to honor their hardship, this day was coined by the government of India in 2001.
- This day also marks the birth anniversary of the 'Champion of Indian Peasants' **and the fifth Prime Minister of India, Chaudhary Charan Singh.**
- The day aims to spread awareness of the contributions of farmers to the socioeconomic development of the nation.
- It also recognises the efforts of the former Prime Minister who helped in uplifting the farmers in the country, **introducing the Debt Redemption Bill and Land Holding Act.**



## History of National Farmers Day

- As mentioned above the history of the day is related to the **birth anniversary of the fifth Prime Minister of the nation Choudhary Charan Singh.**
- He served the nation **for a very short period from July 28, 1979 to January 14, 1980** but made marvelous contributions for the farmers in his short tenure.
- He introduced and **implemented various schemes for the betterment of farmers and wrote several books highlighting the problems** faced by the farmers of the nation along with giving the solution of the same.

## NATIONAL CONSUMER DAY OBSERVED ON 24<sup>TH</sup> DECEMBER

- Every year on December 24, **India observes the National Consumer Day or Bharatiya Grahak Diwas.** This day is used to make all consumers aware of their powers and rights.
- This day was made under the **Consumer Protection Act, which came to power in 1986** to create awareness and save consumers from market exploitation like defective products or expensive pricing.
- Notably: **World Consumer Rights Day is celebrated on March 15 every year.** The day marks an opportunity to urge that all consumers' rights be recognised and safeguarded, as well as to protest market abuses and social injustices that jeopardize those rights.
- **The major objectives of the Consumer Protection Act 1986 are:**
  - Rights to protect against the marketing of goods and services which are hazardous to life and property
  - Rights to be informed about the **quality, quantity, price and purity of the goods and services, to avoid unfair trade practices**
  - Rights to be assured of the access to a variety of goods and services at competitive prices
  - Rights to seek redressal against unfair trade practices or restrictive trade practices



- **Rights to consumer education.**
- In 2019, the **Consumer Protection Act 1986** was revised. Later, the Ministry of Consumer Affairs, Food and Public Distribution announced the CPA 2019 bill put to effect on July 20, 2020.
- Disposal of complaint

# REPORT & INDEXES

## CLIMATE OPPORTUNITIES IN INDIA'S COOLING SECTOR

According to the report 'Climate Investment Opportunities in India's Cooling Sector' released by the World Bank Group, investment opportunities in India's cooling sector through less carbon-intensive technologies could add up to USD 1.6 trillion.

### What are the Highlights of the Report?

- The report analyzed the **India Cooling Action Plan (ICAP) launched in 2019** and came up with suggestions for prioritizing the government's investment opportunities in the cooling sector.
- The report does not focus on air conditioning because only 40% of Indians will have air conditioning by 2040 — which is currently around 8% — and the rest for whom passive cooling technologies have to be the focus.
- Investment opportunities across three different sectors — **construction, cold chains and refrigerants** — **have the potential to reduce greenhouse gas (GHG) emissions** significantly and also create nearly 3.7 million jobs.
- Around 34 million people in the country might lose their jobs because of heat stress and subsequent decline in productivity.
- The world is already on a path where there would be many more intense heat waves like the one India witnessed in 2022. **Heat stress is set to increase drastically in a world on its way to a two-three degree rise in temperatures.**

## NEW ENERGY OUTLOOK REPORT 2022

The **2022 New Energy Outlook Report** was released by the global, clean energy research provider BloombergNEF. The report analyzed the Net Zero scenarios or pathways that limit global warming to 1.77°C above pre-industrial levels by 2050 with 67 percent assurance.



### What are the key findings of the report?

- The **greenhouse gas emissions from developing countries, especially India**, are expected to continue to increase until the end of 2030. The emissions will decline in these countries only in the early 2030s.
- Since emissions in **Europe, the United States, Australia and Japan** have already peaked in 2022, they are expected to decline rapidly in the following years.
- In China, the emissions are expected to peak in 2022 and stabilize for a while before they realign with developed countries' trajectories. **Limiting global temperature rise to 1.5°C cannot be easily achieved.**
- **It is possible to maintain the global temperature increase to 1.77°C** if proactive actions are taken. However, investment in the clean energy sector must be three times higher than fossil fuels to achieve the Net Zero Target by 2050.
- Emissions need to **decline by 30 per cent by the end of this decade and overall by 6 per cent** a year to 2040. Even then, the energy sector will not be able to reach the desired emission targets unless a revolutionary change takes place.



## THE FUTURE OF FOOD & AGRICULTURE: FAO

According to the Food and Agriculture Organization's (FAO) new report, The Future of Food and Agriculture — Drivers and triggers for transformation, the world will witness persistent food insecurity if agrifood systems remain the same.

- This report aims at inspiring strategic thinking and actions to transform agrifood systems towards a sustainable, resilient and inclusive future.



### What is the Food and Agriculture Organization?

- **FAO is a specialized agency of the United Nations** that leads international efforts to defeat hunger. World Food Day is celebrated every year around the world on 16th October. The day is celebrated to **mark the anniversary of the founding of the FAO in 1945.**
- It is **one of the UN food aid organizations based in Rome (Italy).** Its sister bodies are the World Food Programme and the International Fund for Agricultural Development (IFAD).

### Initiatives Taken:

- Globally Important Agricultural Heritage Systems (GIAHS).
- Monitors the Desert Locust situation throughout the world.
- The Codex Alimentarius Commission or CAC is the body responsible for all matters regarding the implementation of the Joint FAO/WHO Food Standards Programme.
- The **International Treaty on Plant Genetic Resources for Food and Agriculture** was adopted by the Thirty-First Session of the Conference of the FAO in 2001.

## EIU'S WORLDWIDE COST OF LIVING REPORT

The **Worldwide Cost of Living 2022 report** was released recently by the **London-based Economist Intelligence Unit (EIU).** It compares prices of more than 200 goods and services in 172 countries across the globe.



### What are the key findings of the report?

- The **semiannual report** found sweeping changes in the living expenses in cities, triggered mainly because of the war in Ukraine.
- **Moscow and St. Petersburg – Russia's most populous cities** – witnessed a drastic increase in the rank of any city in the list. Moscow's ranking jumped from the 72nd position in 2021 to the 37th position in 2022.
- **Living expenses in many European cities declined despite the global energy crisis because of the weakening of currencies and economies.** European cities (Luxembourg, Stockholm, Brussels, Lyon, France and Manchester) accounted for five of the 10 cities that fell the most in the rankings in 2022.
- **Kyiv – the capital of Ukraine – is not in the 2022 list.** New York and Singapore have tried to take up the top rank because of high income and a strong US dollar.
- As many as 22 US cities have moved up in ranking because of rapid increase in **prices. Cities like Atlanta, Charlotte, Indianapolis, San Diego, and Boston witnessed a major increase in the cost of living.** They are among the top 10 largest such increases recorded worldwide.
- Tel Aviv, which stood at the top rank in 2021, fell to 3rd position, with Los Angeles and Hong Kong tied to the 4th place.





## FORBES LIST OF WORLD'S 100 MOST POWERFUL WOMEN

Amid the unprecedented crisis caused by **Russia's invasion of Ukraine in Europe**, **European Commission president Ursula von der Leyen** topped Forbes' 2022 list of world's 100 most powerful women.

- Since 2004, the American business magazine Forbes has published a list of the 100 most powerful women in the world each year. **Former German Chancellor Angela Merkel** was at the top of the list from 2006 to 2020, except in the year 2010, when US First Lady Michelle Obama took the spot.
- **The list is determined by four main criteria – money, media, impact and spheres of influence.** For political leaders, GDP and populations were taken into account. For corporate leaders, revenues and employee counts are considered as well as media mentions and influence.
- The **list is topped by European Commission President Ursula von der Leyen**, who is currently representing 27 EU member states and their 450 million constituents. The **100th position is held by Iran's Mahsa Amini**. She is the first to be included in the list posthumously. Amini lost her life in September this year while in the **custody of Iran's morality police**.
- **Six Indian women featured on the 2022 list.** These include Union Finance Minister Nirmala Sitharaman, Biocon Executive Chairperson Kiran Mazumdar-Shaw, Nykaa founder Falguni Nayar, HCLTech Chairperson Roshni Nadar Malhotra, **Securities and Exchange Board of India (SEBI)** Chairperson Madhabi Puri Buch and Steel Authority Of India Chairperson Soma Mondal.

## TIME'S PERSON OF THE YEAR 2022

**Ukraine President Volodymyr Zelensky** was chosen as the 2022 Person of the Year by the Time Magazine.

### What is the Person of the Year?

- Person of the Year is an annual issue of the Time magazine featuring a person, a group, an idea or an object that had significantly influenced the events of the year. **It is chosen by the magazine's editors.**
- The tradition of choosing the **"Person of the Year"** began in the year 1927.
- Notable past winners include German Dictator Adolf Hitler (1938), Russian President Vladimir Putin (2007) and others. Mahatma Gandhi was featured in the 1930 edition. In 2021, Tesla and SpaceX CEO Elon Musk was named the Person of the Year since he made headlines after buying Twitter.
- **TIME Person of the Year 2022**
- **Ukraine President Volodymyr Zelensky, who gained global recognition** after playing a central role in resisting Russian invasion, was named the 2022 Person of the Year. Zelensky's decision to stay in Kyiv and fight against Russian forces made him famous.
- He played a major role in increasing the morale of the Ukrainian forces by frequently delivering speeches and appearing on the frontlines.



## WORLD'S STRONGEST PASSPORT LIST

**Passport Index 2022 published by Arton Capital** ranked the world's strongest and weakest passports.

- A passport is a travel document issued by a country's government to its citizens that verifies the identity and nationality of the holder for the purpose of international travel. **India was ranked at 87th position in the world's strongest passport list.**



### About the Passport Index 2022:

- The **Passport Index is based on the 139 members of the United Nations** and six territories were considered for the list.
- The data is based on official information provided by governments, updated in real-time with intelligence obtained through **crowdsourcing and enhanced with proprietary research from highly credible sources.**
- The process included a **three-tier method which rates on the basis of a mobility score (MS) – includes visa-free (VF), visa on arrival (VOA), eTA and eVisa (if issued within 3 days), VF portion of their score vs VOA and United Nations Development Programme Human Development Index 2018 (UNDP HDI) which is used as a tiebreaker.**

## WORLD MALARIA REPORT 2022 RELEASED BY WHO

**World Malaria Report 2022** was released by the World Health Organization (WHO) on December 8.

### What is the World Malaria Report?

- The WHO releases the World Malaria Report each year to **provide in-depth information on the current trends regarding malaria control and elimination** at the global, regional and national levels.
- The report highlights the progress towards the global targets and identifies opportunities and challenges for curbing and eliminating malaria.

### The 2022 report has three new sections focusing on:

- Global and regional initiatives **launched in 2021 and 2022**
- Global malaria surveillance and national-level case studies on surveillance systems assessments
- Research and Development
- It also includes an expanded section on the threats to malaria control, with a specific focus on the declining effectiveness of insecticide-treated mosquito nets.

## GLOBAL FOOD SECURITY INDEX (GFSI) 2022

The **2022 Global Food Security Index (GFSI) report** was released by the British weekly The Economist. In this report, South Africa overtook Tunisia to become the most food-secure country in Africa.

### What are the key findings of the report?

- **Vulnerability to Shocks:** The **global food environment** is deteriorating, making it vulnerable to shocks. Significant progress was made in **global**



food security from 2012 to 2015, with the overall GFSI score increasing by 6 percent.

- **Affordability:** In 2022, the GFSI suffered because of the plummeting of two of its strongest pillars – affordability, and quality and safety. The weakness in the other two pillars (**availability, and sustainability and adaptation**) continued during this year.
- **Widening food security gap:** In 2022, 8 of the top 10 performing countries are in Europe, with Finland topping the list with a score of 83.7. It is followed by Ireland (scoring 81.7) and Norway (scoring 80.5).
- **Africa's Most Food-Secure Country:** South Africa, at the 59th position, was recognized as the most food-secure country in Africa. **It made a record leap from the 70th rank in 2021.**

## GLAAS REPORT RELEASED BY WHO

Recently, the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) report was released by the World Health Organization (WHO) and UN-Water.

### What is UN-Water?

- UN-Water coordinates the United Nations' work on water and sanitation. UN-Water is a 'coordination mechanism'.
- It is **composed of United Nations entities (Members) and international organizations (Partners)** working on water and sanitation issues. UN-Water's role is to ensure that Members and Partners' deliver as one' in response to water-related challenges.

### What is the GLAAS Report?

- The **UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2022 report** compiles new data on drinking-Water, Sanitation and Hygiene (WASH) from 121 countries and territories and 23 External Support Agencies (ESAs).
- It serves as a global reference to inform commitments, priority-setting and actions during the second half of the **2030 Agenda for Sustainable Development and for the 2023 Conference for the Midterm Comprehensive Review of Implementation of the United Nations Decade for Action on Water and Sanitation (2018–2028)** (UN 2023 Water Conference).

## REPORT TITLED '2022 IN NINE CHARTS' BY WORLD BANK

The report titled “2022 in Nine Charts” was released recently by the World Bank.

### What are the key findings of the “2022 in Nine Charts” report?

- **Global Poverty:** At the end of 2022, the world is experiencing the “steepest slowdown” since 1970. Currently, 685 million people are living in extreme poverty. This makes 2022 the second-worst year for poverty reduction in the past 20 years after the year 2020.
- **Debt Crisis:** In the last one year, the debt crises have exacerbated in the developed countries. Currently, **60 percent of the world's poorest countries are either in debt distress or at risk of it.** Private players are having a significant influence on the countries' debt situation.
- **Energy Crisis:** The global progress towards achieving universal access to affordable energy by 2030 has slowed down because of the shocks in the energy market in the first half of 2022. **Currently, 733**





**million people do not have access to electricity.** By the end of this decade, over 670 million people will remain without access to electricity.

- **Learning Poverty:** The progress made in learning poverty since the year 2000 has been reversed, especially in low and middle-income countries. According to the World Bank's report, of every 100 children in low and middle-income countries, 60 are "learning deprived" and 10 are deprived of schools.

## SOCIAL PROGRESS INDEX 2022 RELEASED

**Social Progress Index 2022** was released recently.

- The Social Progress Index (SPI) for States and Districts, released recently by the Institute for Competitiveness and Social Progress Imperative, ranks states and districts based on the SPI scores under 6 tiers of social progress.
- **The six tiers of social progress are Tier 1:** Very High Social Progress; Tier 2: High Social Progress; Tier 3: Upper Middle Social Progress; Tier 4: Lower Middle Social Progress; Tier 5: Low Social Progress and Tier 6: Very Low Social Progress.



### How is the SPI score assessed?

- The states and districts are assessed based on 12 components across 3 critical dimensions of social progress i.e., Basic Human Needs, Foundations of Well-Being, and Opportunity. It uses 89 indicators at the state level and 49 indicators at the district level.

# SCIENCE & TECHNOLOGY

## WHAT IS EQUULEUS SPACECRAFT?

**Japanese Space Agency JAXA** recently announced that it had successfully used steam to propel its **EQUULEUS spacecraft**, which was one of the 10 CubeSats that were launched as part of the Artemis I mission on the **maiden flight of the Space Launch System (SLS)**.



- **EQUilibriUm Lunar-Earth point 6U Spacecraft (EQUULEUS)** is a nanosatellite of the 6U CubeSat format that will measure the distribution of plasma surrounding the **Earth to help scientists understand the region's radiation environment**.
- It also carries an instrument called **DELPHINUS (DEtection camera for Lunar impact PHenomena IN 6U Spacecraft)** for observing Lunar impact flashes and **near-Earth asteroids from EML2 (second Earth-Moon Lagrange point)**.
- The **cubesat is expected to reach the EML2 in approximately one-and-a-half years**. To reach the ELM2, it made use of an engine called **AQUARIUS (AQUA Resistojet propUlsion System)** that uses water as fuel. It uses waste heat from the communication kit to convert the water into steam that is squirted out to produce thrust.
- The use of **AQUARIS enabled the EQUULEUS** to reach the EML2 at a low cost. It makes future visits to the spot more economical.

## WHAT ARE GAMMA RAY BURSTS?

Recently, a rare astronomical event involving a compact binary merger emitting long Gamma Ray Burst (GRB) **twinned with a kilonova emission was reported**.

- This never before scientifically accepted or proven combination was also confirmed by **India's largest optical telescope, Devasthal Optical Telescope (DOT)**.
- The GRB lasted for over 50 seconds and was identified as GRB211211A. Kilonovae occur when two compact objects, like **binary neutron stars or a neutron star and a black hole, collide**.

### What are Gamma-Ray Bursts?

- **GRBs are massive but extremely bright, high-energy short gamma radiations** which get released when massive stars collapse or die in the Universe. They are the most powerful events in the universe, detectable across billions of light-years.
- A light-year is the distance a beam of light travels in a single Earth year, or 9.5 trillion kilometers. Astronomers classify them as long or short based on whether the event lasts for more or less than two seconds.

## WHO WAS JAGADISH CHANDRA BOSE?

**Acharya Jagadish Chandra Bose Indian Botanic Garden** – India's largest botanical garden – is currently under threat because of severe land erosion by River Ganga.



- The **Acharya Jagadish Chandra Bose Indian Botanic Garden** was previously known as the Indian Botanic Garden and the Calcutta Botanic Garden. It is situated in West Bengal's Howrah, near Kolkata.
- It hosts a wide range of rare plants, with the number of species collections **reaching over 12,000 spanning across 109 hectares of land**. Hence, this botanical garden is considered to be the "largest man-made Plant Kingdom".
- It **comes under the control of the Botanical Survey of India (BSI)**, which comes under the aegis of the Union Ministry of Environment, Forest and Climate Change.
- The **garden was founded in 1787 by an army officer of East India Company** mainly to identify new plants having a commercial value like teak and grow the species for trading purposes.
- The famous attraction of this botanical garden is The Great Banyan, which is known for being the largest tree in the world. It **also hosts a large collection of orchids, bamboos, palms, and plants of the screw pine genus (Pandanus)**. It houses fauna like Jackal (*Canis aureus*), Indian mongoose and the Indian Fox (*Vulpes bengalensis*).

## SPACE-TECH INNOVATION NETWORK (SPIN)

The **Indian Space Research Organisation (ISRO)** has signed a Memorandum of Understanding (MoU) with Social Alpha to establish a **SpaceTech Innovation Network (SpIN)**.

- **Social Alpha** is a multistage innovation curation and venture development platform supporting activities concerning science and technology.
- It **supports innovators and entrepreneurs who are involved in the creation of social, economic and environmental impact** to address India's developmental challenges.

## What is the SpaceTech Innovation Network?

- The **SpaceTech Innovation Network (SpIN)** is India's **first dedicated platform for innovation**, curation and venture development of the country's rapidly growing space entrepreneurial ecosystem. It will mainly focus on supporting space tech entrepreneurs in three different innovation categories.

## WHAT ARE AIR BREATHING ENGINES?

Recently, the **Indian Space Research Organisation (ISRO)** has successfully conducted the hot test of Scramjet Engine, a type of Air Breathing Engine.

- India is the fourth **country to demonstrate the flight testing of a Scramjet Engine**.



## What are Air Breathing Engines?

- An **air-breathing engine** is an engine that takes in air from its surroundings in order to burn fuel. All practical air breathing engines are internal combustion engines that directly heat the air by burning fuel, **with the resultant hot gasses used for propulsion via a propulsive nozzle**.

- A continuous stream of air flows through the air-breathing engine. The air is compressed, mixed with fuel, ignited and expelled as the exhaust gas. Thrust produced by a **typical air-breathing engine is about eight times greater than its weight.**
- The thrust results from the expulsion of the working gasses from the exhaust nozzle.



## HAKUTO-R MOON MISSION OF JAPAN

Recently, a **Japanese space startup ispace Inc** has launched its own private **lander M1** to the Moon under its HAKUTO-R mission, from the SpaceX Falcon 9 rocket.

- It is Japan's first-ever **lunar mission and the first of its kind by a private company**.



### What are the Key Points of the Mission?

- The **name HAKUTO-R** refers to the white rabbit that Japanese folklore suggests lives on the Moon. The M1 lander will deploy two robotic rovers, two-wheeled, orange-sized devices from Japan's JAXA space agency and a **four-wheeled Rover made by the UAE known as the Explorer Rashid**, after the Dubai royal family patriarch.
- If the **rover Rashid lands successfully, it will be the Arab world's first Moon mission**. So far only the US, Russia and China have managed to put a robot on the lunar surface. It will also be carrying an experimental solid-state battery made by **NGK Spark Plug Co, a Japanese-based spark plug company**.

## JOINT TEST RUN OF HYPERSONIC VEHICLE

The **Indian Space Research Organization (ISRO)**, along with the **Headquarters of the Integrated Defense Staff (HQ IDS)**, conducted the joint test run of hypersonic vehicles.

- The recently held joint trial run fulfilled the predetermined targets successfully. **This hypersonic vehicle is set to become operational in three to four years**.
- A hypersonic vehicle is a **vehicle capable of traveling at a speed higher than Mach 5** (five times faster than the speed of sound). It can be an airplane, missile or spacecraft.
- Countries like China, India, Russia, and the United States are racing to enhance their ability to develop hypersonic missiles. **These vehicles have high maneuverability and do not follow a predictable arc**.

## WHAT IS RASHID ROVER?

**Rashid Rover** was launched on December 11 aboard a SpaceX Falcon 9 rocket. Rashid Rover, the **Arab world's first lunar rover, is named after the late Sheikh Rashid bin Saeed Al Maktoum**, former Ruler of Dubai.

- This rover will undertake a 3,85,000-kilometer-long journey to reach the lunar surface, **making the United Arab Emirates (UAE)** the fourth country to land on the Moon. This four-wheeled rover weighs just 10 kg.
- It was built by engineers from the Mohammed bin Rashid Space Centre (MBRSC) as part of a project that was launched in 2017. The destination of the rover is the Atlas crater in the Mare Frigoris site on the **Moon's near side (the one facing the Earth)**.



## AGNI-5 NUCLEAR CAPABLE BALLISTIC MISSILE

Recently, India successfully carried out the night trials of the **Agni-5 nuclear-capable ballistic missile**.



### What are the Features of the Missile?

- Agni-5 is an ingeniously built advanced surface-to-surface ballistic missile developed under the Integrated Guided Missile Development Programme (IGMDP).
- It is a fire-and-forget missile, which cannot be stopped without an interceptor missile. The missile has the **capability of hitting targets beyond the range of 5000 km and is crucial for India's self-defense systems**.

### What are Agni Missiles?

- The Agni missile class is the backbone of India's nuclear launch capability, as are Prithvi short-range ballistic missiles, submarine-launched ballistic missiles, and fighter aircraft.
- Agni-1 to 5 missiles are **designed & developed by Defence Research and Development Organisation (DRDO)**.

## WHAT IS NUCLEAR FUSION BREAKTHROUGH?

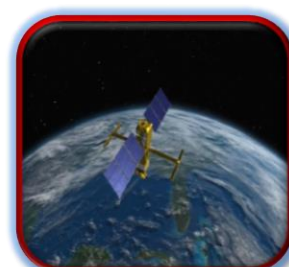
Researchers at the **California-based Lawrence Livermore National Laboratory (LLNL)** have recently announced a historic nuclear fusion breakthrough, claiming it to be the **"landmark achievement"** in the quest for a source of unlimited, clean power and an end of the dependence on fossil fuels.

### What is this nuclear fusion breakthrough?

- The US researchers used the world's largest laser for the first time to create a nuclear fusion reaction. This is the first scientific experiment that achieved success in replicating the same energy that powers the Sun.
- It also **achieved "net energy gain"** by producing more energy from fusion than the laser energy used to derive it. For the experiment, researchers used 192 ultra-powerful lasers to deliver 2.05 megajoules of energy to a **capsule that is smaller than a pea and has isotopes of hydrogen**.
- They were able to produce 3.15 megajoules of fusion energy output. **While they attained a net energy gain, 400 megajoules of energy** was required from the electrical grid to power the laser.
- The historic nuclear fusion breakthrough is expected to play a **major role in the future of clean power and advances in the national defense**.

## SURFACE WATER & OCEAN TOPOGRAPHY (SWOT)

Recently, a **National Aeronautics and Space Administration (NASA)** -led international satellite, **Surface Water and Ocean Topography (SWOT)** was launched from Southern California by SpaceX Falcon 9 rocket.



- The satellite will take the first global survey of Earth's freshwater systems from space.

### What is Surface Water and Ocean Topography?

- **SWOT is an advanced radar satellite** that aims to provide scientists with a deeper understanding of the oceans and how climate change impacts them. The rocket's payload, the SWOT, incorporates advanced microwave radar technology **to collect high-definition measurements of oceans, lakes, reservoirs and rivers over 90% of the globe.**

## ARMED FORCES SET TO PROCURE PRALAY BALLISTIC MISSILE

As **the conflicts in the border region with China increase**, the **Indian armed forces** are now set to procure the '**Pralay**' ballistic missile that can hit the target from 150 to 500 km.

**Defence Research and Development Organisation (DRDO)** had successfully conducted the maiden flight test of the indigenously developed surface-to-surface missile '**Pralay**', from **Dr A P J Abdul Kalam Island off the coast of Odisha in December 2021.**



- About Pralay Capabilities: "The new missile followed the desired quasi ballistic trajectory and reached the designated **target with high degree accuracy, validating the control, guidance and mission algorithms.**
- All the sub-systems performed satisfactorily. All the sensors deployed near the impact point across the eastern coast, including the down range ships, tracked the **missile trajectory and captured all the events," the statement read.**
- The **Pralay missiles combined with the BrahMos supersonic cruise missiles** would be the longest-range tactical weapon system in the defense forces as the long-range strategic weapons are controlled by the strategic forces command.
- The missile can help the troops to completely destroy or take out enemy air defense sites or similar high-value targets.
- '**Pralay**' is powered with a solid propellant rocket motor and many new technologies. The missile has a range of 150-500 kilometers and can be launched from a mobile launcher. *The missile guidance system includes a state-of-the-art navigation system and integrated avionics.*

## INDIA'S MAIDEN HUMAN SPACE FLIGHT MISSION

The Government has said, the country's maiden human space flight mission, **Gaganyaan**, is targeted to be launched in the fourth quarter of 2024.

**Science & Technology Minister, Dr. Jitendra Singh said**, in view of the paramount importance of crew safety, two uncrewed flights are scheduled, before the final human space flight- '**H1 mission**', to demonstrate the performance of the crew escape system and parachute-based deceleration system for different flight conditions.



### Gaganyaan Mission:

- Aim: **Gaganyaan is an Indian crewed orbital spacecraft** that is intended to send 3 astronauts to space for a minimum of seven days by 2022 (delayed due to COVID-19).
- **Launched by:** ISRO's Geosynchronous Satellite Launch Vehicle GSLV Mk III (3 stages heavy-lift vehicle)





# MISCELLANEOUS

## HIGHLIGHTS OF FIFA WORLD CUP 2022

Recently, Argentina won the FIFA (Fédération internationale de Football Association) World Cup 2022 held in Qatar by defeating France.



### What is the FIFA World Cup?

- The most prestigious tournament in the world - taking place quadrennially.
- First FIFA WC: **Held in Uruguay in 1930, Won by Uruguay.**
- Trophy: The trophy cup awarded from 1930 to 1970 was the **Jules Rimet Trophy**, named for the Frenchman who proposed the tournament. A new trophy called the FIFA World Cup was put up for competition in 1970.

### Key Highlights of FIFA WC 2022:

- Awards: FIFA announced a number of awards to recognize the great performance of players throughout the WC including
  - Golden Boot (Most number of Goals) - **Kylian Mbappe (France)**
  - Golden Glove - **Emiliano Martinez (Argentina)**
  - Golden Ball (Performer of the Tournament) - **Lionel Messi (Argentina)**
  - Young Player - **Enzo Fernandez (Argentina)**
  - FIFA Fair Play Award - **England**
- **FIFA WC Official Ball:** Al Rihla (means - 'the journey') - a reference to a travelog written by Ibn Battuta, the 14th-century explorer.
- Al Rihla is the first World Cup ball to be made exclusively with water-based inks and glues. Al Rihla was to be used in the event until the **quarterfinals, Al Hilm' replaced Al Rihla FIFA WC 2022 semi-finals and final.**
- **At the time of First FIFA WC (1930),** there was no official ball and both the finalists - Uruguay (T Model ball) and Argentina (Tiento) - brought their own balls. Pakistan produces more than **2/3rd of the world's footballs, with Sialkot being the hub of manufacturing.**
- **Official Mascot:** La'eeb was the Official Mascot for FIFA WC 2022. '**La'eeb**' in Arabic translates to 'super-skilled player'.

## WHAT IS DIGI-YATRA?

Recently, the **government has introduced paperless entry at select airports to make air travel hassle-free.**

In the first phase, the initiative will be launched at seven airports, starting with three — **Delhi, Bengaluru, and Varanasi, followed by four airports namely Hyderabad, Kolkata, Pune, and Vijayawada by March 2023.** Subsequently, the technology will be implemented across the country.



### What is DigiYatra?

- **DigiYatra envisages** that travelers pass through various checkpoints at the airport through paperless and contactless processing, using facial features to establish their identity, which would be linked to the boarding pass.
- With this technology, the **entry of passengers would be automatically processed based on the facial recognition system at all checkpoints** – including entry into the airport, security check areas, aircraft boarding, etc.
- **Implementation:** The project is being implemented by the **DigiYatra Foundation under the Ministry of Civil Aviation.**
- **DigiYatra Foundation is a joint-venture company** whose shareholders are the Airports Authority of India and **Bengaluru Airport, Delhi Airport, Hyderabad Airport, Mumbai Airport and Cochin International Airport.**

## INDIA & FRANCE PARTNERSHIP ON KAZIRANGA PROJECT

India and France are collaborating on the Kaziranga Project.

Agence Française de Développement (AFD) of France has committed funding of €80.2 million for a 10-year period, between 2014-2024.



### What is the Kaziranga Project?

- The **Kaziranga project is a part of a larger Assam Project on Forest and Biodiversity Conservation (APFBC).** The Assam government, with the support of AFD, launched the APFBC in 2012, to restore forest ecosystems, protect wildlife and enhance the livelihood of the forest-dependent communities.
- The project conceptualized the reforestation of 33,500 hectares of land and the training of 10,000 community members in alternate livelihoods by 2024.

### What are Key Facts about Kaziranga National Park?

- **Location:** It is located in the State of Assam and covers 42,996 hectares (ha). **It is the single largest undisturbed and representative area in the Brahmaputra Valley floodplain.**
- **Legal Status:** It was declared as a National Park in 1974. It has been **declared a tiger reserve since 2007.** It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.
- **International Status:** It was declared a UNESCO World Heritage Site in 1985. It is recognized as an Important Bird Area by BirdLife International.

## SEMERU VOLCANO ERUPTED IN INDONESIA'S JAVA ISLANDS

Recently, **Semeru volcano** erupted in Indonesia's Eastern Java Island.

### What is Semeru Volcano?

- Semeru - also known as "The Great Mountain" - **is the highest volcano in Java and one of the most active.** It previously erupted in December, 2021. Indonesia, with the maximum number of active volcanoes in the world, is prone to **seismic upheaval due to its location on the Pacific's Ring of Fire.**



- **Semeru volcano** is also part of the Island arcs formed by the subduction of the Indo-Australian plate below **Sunda Plate (part of the Eurasian Plate)**. The trench formed here is called the Sunda trench whose major section is the Java Trench.

## What is the Pacific Ring of Fire?

- The **Ring of Fire**, also referred to as the **Circum-Pacific Belt**, is a path along the Pacific Ocean characterized by active volcanoes and frequent earthquakes. It traces boundaries between several tectonic plates—including the **Pacific, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates**.

## TUNGARESHWAR WILDLIFE SANCTUARY EXEMPTED FROM ESZ

On December 1, the Supreme Court exempted Maharashtra's **Tungareshwar Wildlife Sanctuary (TWS)** from its June order mandating the creation of a 1 km eco-sensitive zone (ESZ) around all protected areas in India.



- Tungareshwar wildlife sanctuary or Tungareshwar National Park is situated on a plateau east of Vasai and Virar in Maharashtra's Palghar district.
- The wildlife sanctuary has three different types of forests – **Dry Deciduous, Moist Deciduous and Semi Evergreen**. It has rich biodiversity, with diverse populations of flora and fauna.

## SC's ESZ mandate

- On June 3, 2022, the **Supreme Court** had directed all protected forest, national park and wildlife sanctuaries across India to have mandatory eco-sensitive zones (ESZ) of a minimum of 1 km starting from their demarcated boundaries.
- The ESZs are set up around the protected areas as a "shock absorber". They act as a transition zone from the areas with high protection to those having lesser protection.

## 'GOBLIN MODE' AS WORD OF THE YEAR: OXFORD DICTIONARY

**Oxford Dictionaries** said that "goblin mode" has been selected by an online vote as its word of the year. It defines the term as "a type of behavior which is unapologetically self-indulgent, lazy, slovenly, or greedy, typically in a way that rejects social norms or expectations." In **2021**, the **Oxford word of the year** was "vax".

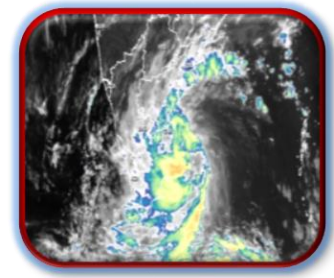
- **Other points to know:** "Goblin mode" received 93 percent of the more than 340,000 votes cast, with "Metaverse" coming in second with 4 per cent. The hashtag "I Stand With secured" stood at third position.
- The voting for the Oxford Word of the Year took place between November 21 and December 2. Meanwhile, Merriam-Webster, an American dictionary publisher, selected "gaslighting" as its word of the year for 2022.
- According to Merriam-Webster, **there was a 1740 per cent rise in "gaslighting"** website searches in 2022, and there was "high interest throughout the year."

## WHAT IS CYCLONE MANDOUS?

Recently, it has been reported that a cyclone may impact the Tamil Nadu and Puducherry coasts from 8th December 2022 onwards.

## What is Cyclone Mandous?

- Mandous is a slow-moving cyclone that often absorbs a lot of moisture, *carries a humongous amount of rainfall and gains strength in the form of wind speeds.*
- The name has been **suggested by the United Arab Emirates. India Meteorological Department's (IMD)** predicted that the storm system may move in the west and northwestward directions and intensify into a depression by the evening of December 6.
- It may subsequently strengthen further into a cyclone over **southwest Bay of Bengal and move towards the Tamil Nadu and Puducherry coasts** by the morning of December 8.



## What is a Cyclone?

- Cyclones are rapid inward air circulation around a low-pressure area. The air circulates in an anticlockwise direction in the Northern hemisphere and clockwise in the **Southern hemisphere. Cyclones are usually accompanied by violent storms and bad weather.**

## WHAT IS PHARMACEUTICAL POLLUTION?

According to a research paper, **Pharmaceutical Pollution is an overlooked but urgent issue** that needs **coordinated action from across the pharmaceutical, healthcare and environmental sectors.**

Almost half or 43% of the world's rivers are contaminated with active pharmaceutical ingredients in concentrations that can have disastrous ramifications on health.

## What is Pharmaceutical Pollution?

- Pharmaceutical plants are often incapable of filtering out all the chemical compounds used in their manufacturing process and as such, the chemicals will seep into the surrounding freshwater systems and eventually into the **oceans, lakes, streams, and rivers.**
- **Wastewater from pharmaceutical manufacturers** is also sometimes discharged into open fields and nearby water bodies, thereby increasing the pharmaceutical **waste or their by-product load in the environment, landfills, or dumping areas.** All this is basically known as pharmaceutical pollution.

## WHAT IS END TO END ENCRYPTION?

Recently, Apple has announced it will be increasing the number of data points protected by **End-to-End Encryption (E2EE)** on iCloud from **14 to 23 categories.**

## What is the Purpose of announcing this?

- **According to a data-breach-research by Apple,** the total number of data breaches more than tripled between 2013 and 2021. Data of 1.1 billion personal records were exposed in 2021 alone.
- With end-to-end encryption, user data will be protected even in case data is breached in the cloud. The **extra layer of protection would be valuable to targets of hacking attacks launched by well-funded groups.**

## What is End-to-End Encryption?



- **End-to-end encryption** is a communication process that encrypts data being shared between two devices. It prevents **third parties like cloud service providers, internet service providers (ISPs)** and cybercriminals from accessing data while it is being transferred.

### 3 HIMALAYAN MEDICINAL SPECIES IN IUCN RED LIST

**Three medicinal plant species in the Himalayas** have been included in the **IUCN Red List of Threatened Species**. These are *Meizotropis pellita* (critically endangered), *Fritillaria cirrhosa* (vulnerable) and *Dactylorhiza hatagirea* (endangered).



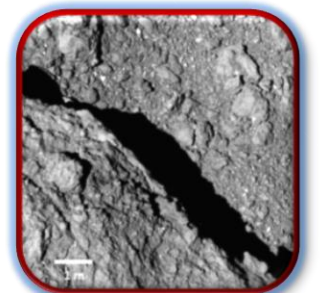
**About *Meizotropis pellita*:** *Meizotropis pellita* is commonly known as Patwa. It is a perennial shrub that is found only in Uttarakhand. The species was listed as critically endangered in **the IUCN List based on its limited area of occupation (less than 10 square kilometers)**.

- **About *Fritillaria cirrhosa*:** *Fritillaria cirrhosa*, commonly known as Himalayan fritillary, is a perennial bulbous herb. Its **population has declined by 30 per cent over the past 22 to 26 years**.
- The species has been **listed as vulnerable in the IUCN Red List** due to the high rate of population decline, long generation length, poor germination potential, high trade value, extensive harvesting pressure, and illegal trade.
- **About *Dactylorhiza hatagirea*:** *Dactylorhiza hatagirea* or Salampanja is a perennial tuberous species endemic to the Hindu Kush and Himalayan ranges of Afghanistan, China, India, Nepal, and Pakistan.
- The species is listed as endangered in the IUCN Red List as its survival is threatened by habitat loss, livestock grazing, deforestation, and climate change. It is commonly used in **Ayurveda, Siddha, Unani, and other alternative systems** of medicine to cure dysentery, gastritis, chronic fever, cough, and stomach aches.

### WHAT IS ASTEROID RYUGU?

A sample of a space rock called Ryugu that was carried to Earth in 2020 by the Japanese space agency's asteroid sample-return mission, **Hayabusa 2 may hold the answers to the origin of the Earth**.

It is the first time several grams of asteroid samples have been brought back to Earth.



#### What is Asteroid Ryugu?

- **Asteroid Ryugu is a diamond-shaped space rock.** The asteroid's name means "dragon palace" in Japanese and refers to a magical underwater castle in a Japanese folktale.
- Ryugu was discovered in **1999 by the Lincoln Near-Earth Asteroid Research (LINEAR) project**, a collaborative, U.S.-based project to catalogue and track space rocks.
- The asteroid is about 2,952 feet (900 meters) in diameter. Ryugu is orbiting the sun between Earth and Mars and occasionally crosses Earth's orbit, which means the space rock is classified as "potentially hazardous," though the body poses no imminent danger to our world.

### KEY POINTS ABOUT TAL CHHAPAR BLACKBUCK

Recently, the famous Tal Chhapar Blackbuck Sanctuary in Churu, Rajasthan received a protective cover against a **proposed move of the State government to reduce the size of its Eco Sensitive Zone (ESZ).**

- The **World Wildlife Fund for Nature (WWF)** has also taken up a major project for the conservation of raptors in the sanctuary, spread in an area measuring 7.19 sq. Km.
- The **Tal Chhapar Sanctuary is situated on the border of the Great Indian Thar Desert.** Tal Chhapar is a distinctive shelter of the most graceful Antelope seen in India, “the Blackbuck”.
- It was **given the status of a sanctuary in 1966. Tal Chhapar was a hunting reserve of the erstwhile royal family of Bikaner.**
- The **“Tal” word is a Rajasthani word meaning plane land. This Sanctuary** has nearly flat territory and a combined thin low-lying region. It has open and wide grasslands with spread Acacia and Prosopis plants that offer it a look of a characteristic Savanna.

## WHAT IS SAND BATTERIES?

**Sand batteries** can store a significant extent of thermal energy and can aid Clean Energy Solutions.

Finland has installed the **world's first fully working "sand battery"** in its town called Kankaanpää capable of storing green power for months at a time. The batteries can also solve the issue of year-round supply.



### What is a Sand Battery?

- A **"sand battery"** is a **high temperature thermal energy storage** that uses sand or sand-like materials as its storage medium. It stores energy in sand as heat. Sand is a very effective medium for retaining heat over a long period, storing power for months at a time.
- Its main **purpose is to work as a high-power and high-capacity** reservoir for excess wind and solar energy. The energy is stored as heat, which can be used to heat homes, or to provide hot steam and high temperature process heat to industries that are often fossil-fuel dependent.
- The **sand battery helps to ambitiously upscale renewables production** by ensuring there's always a way to benefit from clean energy, even if the surplus is massive.

## LIQUOR BAN IN INDIA

A recent hooch tragedy in Bihar claimed many lives and left several others critically ill and blind.



### What is the Background of Liquor Ban in India?

- **In India**, attempts at prohibition have been influenced by the thinking of Mahatma Gandhi, who viewed alcohol consumption more as a disease than a vice. **Following India's independence, Gandhians continued to push for a liquor ban.**
- These efforts led to the **inclusion of Article 47 in the Constitution**. Several Indian states have enacted bans on alcoholic beverages.
- For example, Haryana made several attempts at prohibition but was forced to abandon the policy due to the inability to control illicit distillation and bootlegging, which also resulted in many deaths.
- Prohibition has been in **effect in Gujarat since 1st May 1960**, but the liquor trade persists through the black market. **Bihar's prohibition, imposed in April 2016**, which initially appeared to succeed and yield certain social gains.
- However, following several deaths from consuming illicit liquor, the policy is increasingly coming under attack. Currently, there are five states (Bihar, Gujarat, Lakshadweep, Nagaland, and Mizoram) with total prohibition and some more with partial prohibition.

## SECRETARIAT FOR SCIENCE WORKING GROUP OF G20

The **Bengaluru-based Indian Institute of Science (IISc)** has been chosen as the secretariat for Science 20 (S20) – **the science working group of the G20 summit.**

The **Science 20 (S20) 2023** will work towards resolving common global-level challenges like poverty.

## It will focus on three key issues:

- Universal Holistic Health
  - Clean Energy for Green Future
  - Connecting Science to Society and Culture
- These three issues will be discussed at the events that will be held in **Agartala, Lakshadweep, and Bhopal throughout the year of 2023**. In addition to these events, an inaugural conference will be held in Puducherry from January 30 to 31 next year and a **summit meeting will be organized in Coimbatore, Tamil Nadu**.
- The S20 summit, **which will be held in Coimbatore, will bring together** all the science ministers from the G20 countries. The theme of the Science 20 (S20) 2023 is **'Disruptive Science for Innovative and Sustainable Development'**.

## WHAT IS BOMB CYCLONE?

An **unprecedented bomb cyclone has hit the US and Canada**, affecting over millions of people in the region. Bomb cyclone is an extra-tropical weather phenomenon that develops by a process called bombogenesis. It is a **pressure system that develops upon contact** between a warm air mass or a low pressure air mass and a cold air mass or a high pressure air mass.

A **low pressure system is said to be a bomb cyclone if its pressure** drops by 24 millibars within 24 hours. The pressure gradient between the two air masses causes the winds to intensify.

- The **Earth's rotation causes the winds to blow in a cyclonic manner**. For instance, in the Northern Hemisphere, the winds blow in a counter-clockwise direction due to the Coriolis Effect i.e. deflection caused by the planet's rotation. Such bomb cyclones lead to heavy snowfall and blizzards. They tend to significantly disrupt every-day life.

## Storm Elliot

- The **recent Storm Elliott is an example of a bomb cyclone**. Elliott developed a low pressure system near North America's Rocky Mountains on 21st December this year.
- The bombogenesis was fuelled by the contact between the **warm air mass from the Great Lakes region and the cold air mass** from the Arctic region, at the Arctic Front. This **contact was enabled by an undulation of the Polar Vortex**, which brought the Arctic air further down south, into the North American region.

## WHAT IS REGENERATIVE FARMING METHODS?

Farmers in Madhya Pradesh who follows regenerative farming methods find that they reduce the need for frequent irrigation, which conserves water and energy.

## What is Regenerative Agriculture?

- The **Green Revolution of the 1960s** pulled India from the brink of starvation, but the revolution also made India the world's biggest extractor of groundwater.
- According to the **UN's World Water Development Report, 2022**, India extracts 251 cubic km or more than a quarter of the world's groundwater withdrawal each year; 90 % of this water is used for



agriculture. Currently, there is severe and widespread deficiency of organic carbon and micronutrients in Indian soils.

- If agriculture is to continue to feed the country's undernourished population — **224.5 million, according to the UN's State of Food Security and Nutrition in the World, 2022** — and drive its economy, it needs to work in harmony with nature, not against it.
- **Farmers, activists and agricultural research organizations across** the world are thus developing methods of chemical-less **farming which uses natural inputs and cultivation practices such as crop rotation and diversification**, which fall under the wider umbrella of regenerative agriculture.

## TAMIL NADU LAUNCHED NILGIRI TAHR PROJECT?

The state government of Tamil Nadu has launched the Nilgiri Tahr project to conserve the state animal.

### About Nilgiri Tahr

- The Nilgiri Tahr is an ungulate that is endemic to the southern portion of the Western and Eastern Ghats in Kerala and Tamil Nadu. **It is mainly found in the Nilgiri Hills.** It is the state animal of Tamil Nadu. It is the only mountain ungulate in southern India among the 12 species found in India.
- In the past, **the species was found along the entire stretch of the Western Ghats.** It is currently spotted only in the small fragmented pockets. Majority of the population is not found in its historic range and the existing ones are struggling to survive due to various challenges.
- The species has been listed as Endangered in the IUCN Red List of Threatened Species. Due to the numerous threats the ungulate faces, **it is protected under Schedule I of the Wildlife (Protection) Act of India, 1972.**
- It is currently under the threat of local extinction due to challenges like fragmentation of the habitats, invasion of exotic species, wildfires, over-exploitation of forest resources and the lack of ecological data or understanding.



## BUTTERFLIES ADAPTATION & EVOLUTION PROCESS

A new study has thrown light on many interesting aspects of butterflies' adaptation and evolution processes.

The study was conducted on several species of butterflies and their **imitative traits in the Western Ghats in Karnataka.**

### What are the Highlights of the Study?

- The findings were categorized into three:
- **Model Species:** Those that are toxic to predators.
- **Batesian mimicry Species:** Those that evolved traits of unpalatable species (poisonous) to avoid predators.
- **Non-mimetic Species:** Those that are closely related to **Batesian mimics** but did not evolve mimicry traits. The unpalatable one is called models and the **palatable one is called mimics.** Butterflies that have evolved to make use of mimicry evolve faster than the species that don't make use of mimicry.





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# THE HINDU DAILY ARTICLES' ANALYSIS BY SUCCESS MANTRA SMART COACHING

In this competitive world, the demand for "authentic Current Affairs updates" from a reliable source has been increasing for the past few years, with the growth of awareness and aspirants' educational goals.

Keeping this in mind, Success Mantra Smart Coaching, via its YouTube Channel 'Success Mantra Digital', aims to make 'The Hindu Daily Articles Analysis' accessible to everyone and everywhere across the platform. It offers the latest important news with a minute update, especially for aspirants who are preparing for their dream entrance exams like CLAT, AILET, CUET, DU-LLB, MH-CET, IPU-CET, NCHM and many more.

[https://www.youtube.com/watch?v=IHZTJwt8jFo&list=PLDrM\\_6OH0o1lcuxmRN-icOWj7UIhevklf](https://www.youtube.com/watch?v=IHZTJwt8jFo&list=PLDrM_6OH0o1lcuxmRN-icOWj7UIhevklf)



