

# CURRENT AFFAIRS



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## MONTHLY CURRENT AFFAIRS APRIL : 2024



Near Riddhi-Siddhi Circle, Gopalpura Bypass, Jaipur

# 1. RAJASTHAN AFFAIRS

## IIT Jodhpur develops Nano sensor to detect serious diseases

- Researchers at Indian Institute of Technology Jodhpur have developed a nanosensor for serious diseases.
- This nanosensor will be able to quickly detect cytokines, a group of proteins that regulate various cells of our body.
- This development will help in treating serious diseases like cancer, rheumatological diseases and infectious diseases and will also reduce mortality.
- This nanosensor is based on semiconductor technology and works on the principle of Surface Enhanced Raman Scattering (SERS) which enables the technique to detect trace-level molecules with its high capacity.
- The sensor developed by IIT Jodhpur takes only 30 minutes to detect cytokines, while other methods take more than 6 hours.

### Cytokines

- These play an important role in repairing tissue damage, detecting cancer development and progression, and strengthening immune responses.
- Cytokines are important for developing precision medicine and targeted therapeutics.

## Rajasthan's first elevated railway track

- This elevated track will be built **between Bijwasan in Delhi and Dhehar ka Balaji in Jaipur**.
- Railway PSU RITES will conduct a survey for this parallel to the Dedicated Freight Corridor (DFC).
- After the survey, the DPR of the project will be prepared and submitted to the Railway Board.
- About 4 stations are proposed between Jaipur and Delhi.
- The estimated cost of this project will be around Rs 43,000 crore and this project will be completed in 5 years.
- After this, the journey between Jaipur and

Delhi will be completed in just 1.15 hours. The train will be able to run at a speed of 220 km/hr on this track.

- An elevated track will be laid between Delhi-Jaipur via Rewari-Ringsar.

## The Country's First Military Emergency Airstrip

- This airstrip is located in **Sanchole district of Rajasthan (from Sesawa to Agdawa)**.
- It is located 40 km away from the India-Pakistan international border. Apart from Tejas aircraft, Jaguar, Aircraft cargo aircraft C295 were landed on this airstrip.
- This has been built on National Highway 925 A.
- This airstrip is 3 km long and 33 meters wide.

## Name of Rajiv Gandhi Academic Excellence Scheme changed

- The Rajasthan government has changed the name of Rajiv Gandhi Academic Excellence Scholarship Scheme to **Swami Vivekanand Academic Excellence Scholarship**.
- **500 seats** have been fixed under this scholarship.
- In this, 300 seats will be for studying in foreign institutions while 200 seats have been fixed for studying in educational institutions of the country.
- After amendment in the rules, the portal for those applying started from April 15.

## Dabri, Kota: The first destination to get registered with the Tourism Department

- The first rural tourism unit in Kota has been prepared in Dabri.
- This unit has been established in 65 bighas of land. Rural tourism is being encouraged under the Rural Tourism Policy of the Tourism Department.
- Aditya Singh of Dabri Kalan has developed the destination with the encouragement of the Tourism Department.
- Apart from the swimming pool, many saplings of guava, orange and bamboo have

been planted in it. Apart from this, there are 4 huts, which contain the architectural features of the villages of Hadoti.

### Sindesar Khurd: The second largest silver producing mine in the world

- Hindustan Zinc's Rajasthan-based mine Sindesar Khurd has become the second largest silver producing mine in the world. It was in fourth position last year.
- Hindustan Zinc is a company of the Vedanta Group, which is involved in the mining of zinc, lead and silver.
- Hindustan Zinc is currently the world's second largest integrated zinc producing company and the third largest silver producer.

### Desi words will be included in the curriculum of primary education in Rajasthan.

- From the new session in Rajasthan, students of primary education in government schools will be taught by including desi words.
- Under the new education policy, emphasis is being laid on mother tongue in primary classes.
- For this, the curriculum will be prepared by preparing a dictionary based on local dialects and languages.
- For this, a linguistic survey has been conducted by the Education Department of Rajasthan.
- Under the new education policy, information about the language was taken in this survey from the children and the teachers teaching them.
- In this, the language spoken at children's homes, the language of the teacher, the medium of school, the level of ability of the students to understand and speak the language etc. was surveyed and uploaded on Shala Darpan.
- Now words like 'oontdo for oont', 'matko for matka', 'bandro for bandar', 'kanda for pyaaz', 'kaglo for kauwa', 'balli for billi' and 'chhatthi for bakri' will be included in the state schools.
- Under the Indian Language Survey, a survey regarding 30 languages has been conducted in Rajasthan regarding 30 languages.
- These include Hadoti, Marwari, Thali, Sansi Banjara, Gawaria, Motwadi, Devdavati, Kheradi, Wagdi, Shekhawati, Dhundhari, etc.

### Nutrition Tracker Report

- According to the Nutrition Tracker Report in Rajasthan, currently there are about 1.94 lakh malnourished children in Rajasthan.
- Udaipur has the highest number of malnourished children at 12,976.
- Jaisalmer has the least number of malnourished children at 2,246.
- Apart from this, there are only 550 severely malnourished children in Kota, which is the lowest in the state.

### Poshan Abhiyan

- Poshan Abhiyan was started in the year 2018 by the Department of Women and Child Development.
- Under this, monitoring is being done for the nutrition system through Anganwadi centers.
- Poshan Tracker application was started for this purpose.
- Under this, pregnant women are given counseling and information for their health and nutrition of children from time to time.
- For the timely identification of malnutrition in children, monitoring is done with monitoring devices for maternal and child health at the Anganwadi centers of the district.

Most malnourished districts		
Districts	Total Malnourished	Very Severe
Udaipur	12976	3483
Dausa	12459	3477
Banswara	10063	3594
Ajmer	9484	2991
Pali	9342	3617

Least malnourished districts		
Districts	Total Malnourished	Very Severe
Jaisalmer	2246	1063
Kota	2361	550
Dholpur	2529	719
Churu	2948	809
Sri Ganganagar	3232	779

### e-RC and e-license facility started in Rajasthan from 1 April 2024

- In Rajasthan, the Transport Department has started the facility of e-RC and e-license on 1 April.
- Under this, application for license and RC can be made at the nearest e-mitra.

- After this, the process of license and RC will be completed in RTO.
- A link will be sent from the RTO to the applicant's mobile.
- With this link, the applicant will be able to download his e-license and RC.
- Apart from this, kiosks have been installed in RTO offices for the convenience of the people.
- E-license and e-RC paper and PVC print can be taken out from these kiosks.

### Ex-servicemen in Rajasthan will get recognition equivalent to B.Ed degree

- Rajasthan Education Minister Madan Dilawar has announced to give recognition equivalent to B.Ed (Bachelor in Education) professional degree to ex-servicemen in the state.

### Survey will be conducted for water supply to 10 districts of Rajasthan from Mahi Basin

- At present, 75.38 TMC water from Mahi Basin flows wastefully into the Arabian Sea every year. This is equal to the filling capacity of Mahi Dam.
- Now this water will be diverted to 10 drought-affected districts of Rajasthan. Due to which water will be available for drinking and irrigation in these districts.
- Rajasthan River Basin Authority has started a survey in this regard. This project will be completed by 2030.
- Under this, water will be diverted towards **10 districts Chittorgarh, Pratapgarh, Dungarpur, Bhilwara, Udaipur, Rajsamand, Sirohi, Jalore-Sanchor, Pali and Barmer** by stopping it from going into the sea.
- For this, water will be brought through canals, lift scheme, canal scheme and pipes.
- Apart from this, dams and anicuts will also be built for water storage in Anas and Mahi rivers.
- In this, the Sujalam-Sufalam canal going from Kadana Dam to Gujarat will be expanded to take water to Jalore-Barmer.

### Subsidy amount increased in Farm Pond Scheme

- The Agriculture Department has issued new targets for farmers to make farm ponds in the fields.
- In this, farmers will be given more subsidies for making farm ponds. Under this, the

subsidy amount on unit cost in the Farm Pond Scheme has been increased by Rs. 90,000 making the maximum subsidy limit Rs. 1.35 lakh.

- Farmers can collect rain water from the farm pond and cultivate irrigated crops even in dry areas.
- According to the new guidelines, general category farmers will get a grant of Rs 1.20 lakh instead of Rs 90,000 for making farm ponds. Apart from this, SC/ST and small marginal category farmers will be given a grant of Rs 1.35 lakh. To apply for this, the farmer must have at least 0.3 hectares of agricultural land and at least 0.5 hectares of agricultural land in case of joint partnership.

### Robotics labs will be established in schools of Rajasthan

- Robotics labs will be established in 201 Mahatma Gandhi Government Schools of Rajasthan.
- **Rajasthan School Education Council** has given approval in this regard.
- In this, 163 labs will be established at secondary education level and 38 at primary education level.
- These labs will be established for innovation and research.
- In these labs, students will be able to do research and gain information in robotics or related fields.

### 'Roots of Rajasthan' campaign

- This is a campaign of **Digital Baal Mela**.
- It was launched on March 30, 2024 (Rajasthan Foundation Day).
- It was organized by 'The Future Society'.
- The age limit to participate in it is from 10 to 18 years.
- Its objective is to promote Rajasthan tourism and promote new tourist destinations in the state.
- Under this, children will make videos giving information about the tourist places of the state.
- The child who makes the best video will be awarded an amount of Rs 50,000.
- 100 children who perform well in this will be given a 3-day tour of Jaipur.

## Kaila Devi Fair

- Kaila Devi's Lakhi Fair was organized from 6-22 April 2024 during Chaitra Navratri in Karauli, Rajasthan.

### Kaila Devi

- Kaila Devi is worshiped as the incarnation of the primal energy, Mahayogini Maya, who was born as the child of Nanda-Yashoda.
- She is worshipped as Kaila Devi and at many places as Vindhya-vasini and Hinglaj Mata.
- A detailed description of Kaila Devi is given in the 65th chapter of Skanda Purana.
- It is believed that the Goddess had announced that in Kaliyuga her name would be Kaila and her devotees would worship her as Kaileshwari.
- This temple is situated on Trikut mountain on the banks of Kalisil river in Karauli.

## Aluminum plant to be set up in Bhiwadi

- South India's Craftsman Automation will set up an aluminum product plant in Salarpur Industry Area of Bhiwadi.
- In the first phase, the company will invest Rs 150 crore for this.
- This plant will start in the next 12 months.

## MoU between Police and CBS Cyber Foundation

- Rajasthan Police will work together with CBS Cyber Foundation to create awareness about cyber crime.
- In this context, an MoU was signed between Rajasthan Police and CBS Cyber Foundation. Under this, cyber awareness campaigns will be run by both the parties to make citizens aware and alert them about safe use of computer technology.
- People will be informed about the safe use of computers, mobile, social media platforms, e-commerce applications, online banking, AI and machine learning technology.
- Apart from this, activities like seminars, workshops, webinars and conferences will be organized.

## MoU between BNI Jaipur and CREDAI Rajasthan

- The MoU was signed between Business Network International (BNI) and CREDAI (Confederation of Real Estate Developers

Association of India) Rajasthan on April 5, 2024.

- Under this MoU, BNI Jaipur will enlist vendors from its network on behalf of the members of CREDAI Rajasthan for their residential and commercial projects.

## Swayam Portal

- Under this, students will be able to study online by registering themselves on 'Swayam Portal'.
- This portal has been launched by the Education Department of Rajasthan to make efficient use of the summer vacation.
- In this, students will be taught from NCERT books.
- For this, 28 courses of 11 subjects of class 11th and 12th (16 courses of 11th and remaining of 12th) have been included.
- Classes will be conducted on this portal after the start of summer vacation from May 16 till September 30, 2024.

## Jaipur administration launches 'Q Tracker' mobile app

- This is an initiative of Jaipur District Administration.
- With the help of this app, the status of the polling station and the number of voters in the Jaipur constituency can be found.
- This app has been developed by the Jaipur District Administration in collaboration with the Department of Information Technology (DOIT).
- This facility has been made available to the voters of a total of 9 assembly constituencies of Jaipur Urban and Rural Lok Sabha constituency including Jhotwara Assembly.
- The total number of voters at the booth was updated every hour on the mobile. With the help of this information, the voter could go to the booth and vote as per his convenience.

## Kausa Trust Art Award to Dr. Chandrasher Sen

- Kausa Trust Art Awards 2024 were distributed by Kausa Trust Amritsar.
- In this, **Terracotta Artist Dr. Chandrasher Sen of Jaipur** was also honored.
- Sen was given this award for his outstanding contribution in the field of art.

- The award was given to 11 artists of the country.
- Sen was recently conferred an honorary degree by the African Moon University South West Africa.

### Successful test of indigenous delivery platform in Rajasthan

- The Indian Army practiced delivering heavy military equipment to soldiers in sandy and inaccessible terrain during war at Mahajan Field Firing Range in Bikaner on 26 April 2024.
- This test was conducted by the Indian Army and the Air Delivery and Development Establishment (ADRDE) to enhance military capability.
- In this exercise, the Indian Army, in collaboration with the Indian Air Force, landed the mechanized platform on the ground.
- This airdrop was done from a completely indigenously developed 32 feet Type V platform.
- In this exercise, BMP (heavy machine) was delivered by the C-17 aircraft of the Air Force in the drop zone.

### 'Utkarsh Kisan' app developed to sell products of women and farmers

- This app has been developed by Nakul Parihar of Nagaur district of Rajasthan.
- Farmers will be able to sell their grains and other products on this app directly to the customers.
- In this, women will also be able to sell handmade food items, designing material, paintings etc. to the customers.

### Dr. Radheshyam Pareek

- Dr. Radheshyam Pareek is a renowned homeopathy doctor, who has recently been honored with the Padma Shri award.
- Dr. Radheshyam has been a homeopathic doctor in Agra for 70 years and is originally from Nawalgarh (Jhunjhunu).
- Dr. Radheshyam was nominated for the Padma Shri award from Uttar Pradesh.
- Dr. Radheshyam was given this honor for treating patients suffering from incurable diseases. He has also been honoured with several international awards including the Heinemann Prize in Germany.

### Padma Shri Award 2024 Winners from Rajasthan

1. **Shri Janki Lal (Arts)** (Bhilwara) (Also known as Baba Bahrupiya)
2. **Shri Ali Mohammad and Shri Gani Mohammad (Arts)** (Joint Award) (Bikaner) (Famous Ghazal Singer and Mand Folk Music Singer)
3. **Shri Laxman Bhatt Telang (Arts) (Post-humous)** (Jaipur) (Dhruvapad Music Maestro)
4. **Ms. Maya Tandon (Social Work)** (Jaipur) (For work done in the field of road safety)

### Neeru Yadav

- Neeru Yadav of Rajasthan addressed the annual conference of the United Nations Commission on Population and Development (UNPCD) on 3 May.
- Neeru presented the innovations done to empower girls and women at the Panchayat level.
- The annual conference of CDP was held in New York on 29 April-3 May, 2024.
- Neeru Yadav is the Sarpanch of Lambi Ahir Gram Panchayat of Buhana Tehsil in Jhunjhunu district of Rajasthan.
- She is famous as **Hockey wali Sarpanch**.
- Neeru runs an FPO (Farmers Producer Organisation) called 'Sachchi Saheli Mahila Agro', through which farmers get seeds and other materials at concessional rates.
- Neeru Yadav took the initiative to make the Gram Panchayat plastic free by setting up a utensils bank in the area.
- She started a new campaign by giving trees as Kanyadan at marriage ceremonies to promote the environment.
- She has distributed 21000 plants free of cost in government schools under the Mera Ped-Mera Dost campaign.

### Umesh Dutta became IG in SPG

- Umesh Dutta was appointed as **IG** in the **Special Protection Group (SPG)** on 5 April 2024.
- Umesh Dutta is an Indian Police Service (IPS) officer of the year 2000 batch of Rajasthan cadre.
- Umesh Dutta will hold this post for a period of 5 years.

## SPG

- SPG (Special Protection Group) is an armed force.
- This force comes under the Cabinet Secretariat of the Government of India.
- SPG provides security to the Prime Minister, former Prime Ministers and close members of their families.
- The need for its formation was felt after the assassination of Prime Minister Indira Gandhi (1984).
- This force was formed in 1985 on the recommendation of the **Birbal Nath Committee**.
- Earlier it was named Special Protection Unit (SPU), later it was renamed to Special Protection Group (SPG).
- In the year 1988, an act was made by the Parliament in reference to SPG, it is called SPG ACT, 1988.
- The headquarters of SPG is in New Delhi. Its chief is appointed by the Central Government.
- There is a provision of not appointing an officer below the rank of Additional Director General (ADG) of Indian Police Service (IPS) to this post.
- The SPG Act, 1988 was amended in the year 2019. Under this, SPG will now provide security only to the current Prime Minister and his family members living with him at his official residence.
- Apart from this, SPG will also protect former Prime Ministers and their family members living with them in the residence allotted to them. But this facility will be available only for 5 years after the date of leaving the post.
- The motto of SPG is 'Shauryam Samarpanam Surakshanam'.

## Dr. Aaroaha of Jaipur given command of Sounding Rocket Mission in America

- The command of three successful 'sounding rocket' tests conducted during the solar eclipse in North America was given to **Dr. Aaroaha Barjatya** of Jaipur.
- Aaroaha is the director of the Sounding Rocket Mission of the American Space Agency NASA.

- He has been associated with NASA for the last 20 years.

## Kirti Arora selected in 'President Leadership Academy' in America

- She is from Alwar district of Rajasthan.
- She was recently selected in the prestigious 'President Leadership Academy' of Penn State University of the United States.
- Kirti is the only Indian to be included in this list in the year 2024.
- Kirti was selected for higher education abroad under the 'Rajiv Gandhi Scholarship Scheme' of the Government of Rajasthan. 30 students selected as Penn State President Scholars get the opportunity to visit different places in the world for educational tours and connect with the culture and people of different states.

## Lalit Gupta

- Lalit Gupta has been honored with the 'Rajasthan Samrasta Ratna Award'.
- Gupta has been given this award for his work related to social and cow service.
- He was given this award under the joint aegis of Antarashtriya Samrasta Manch and Rashtriya Samta Manch.

## 41st Sarus Census

- This census was conducted by the Forest Department of Rajasthan and Keoladeo Natural History Society Bharatpur.
- For this census, Bharatpur district was divided into 17 zones.
- At present, there are a total of 143 Sarus in Bharatpur district, as compared to 185 Sarus in 2023.
- There are 42 fewer Sarus in 2024 than last year.

## Jeen Mata's Laxmi Mela

- This Shaktipeeth is located in Sikar district of Rajasthan. Lakhi fair of Jeen Mata is organized every year during Chaitra Navratri.
- It has a ropeway facility for visitors.
- This ropeway goes from Jeen Mata temple to Kajal Shikhar Mata temple situated on the hill.

## Jeen Mata

- Jeen Mata (birth name: Jeevan) was born in a royal family of Ghanghu village in Churu, Rajasthan.
- Her temple is situated near a hill 10 km away from Rewasa village in Sikar.
- Jeen Mata temple, one of the ancient Shaktipeeths of the country, is southfacing.
- Jeen Mata's Ashtabhuj idol is present in the temple.
- Near this temple is the Taposthal of Mahatma, which is called 'Dhuna'.
- The oldest stone inscription present here is of Samvat 1029 and the temple is considered to have been built in the eighth century.
- Jeen Mata is considered to be the incarnation of Shakti and is called 'Bhanwro ki Devi'.
- Her elder brother Harsh is said to be the incarnation of Lord Shiva. There is a temple of Harshnath in the middle of the Aravalli hills.

## Ultra Marathon

- In a 24-hour race, participants have to run continuously for 24 hours and they need nutrition and hydration while running.
- Athletes try to walk or rest as little as possible so that they can cover the maximum distance in 24 hours.

## Rajasthan team won silver medal in Sub-Junior Girls National Kabaddi Competition

- The Rajasthan girls category has won a silver medal in the 33rd Sub-Junior Girls National Kabaddi Competition.
- The Rajasthan girls team defeated Haryana in the final.
- The 33rd Sub-Junior National Kabaddi Competition was held in Patna, Bihar.
- Earlier, Kabaddi players in the Rajasthan Men's category had won gold medal in the 48th Junior National Kabaddi Competition while they won silver medal in the 49th Junior National Kabaddi Competition.

## Ojaswini Saraswat won the National Golf Tournament

- This national tournament was organized at Tollygunge Golf Club in Kolkata. In this championship, Ojaswini Saraswat of Jaipur won the title while representing Rajasthan.
- Earlier, she had also won the Asian Junior Masters Tournament.

## Amar Singh won the gold medal in the Asia Oceania Ultra Marathon Championship 2024 Ultra Marathon

- Amar Singh won the gold medal by creating a new record **of running 272 km in 24 hours** in the Asia Oceania Ultra Marathon Championship 2024 Ultra Marathon held in Canberra (Australia) on 6-7 April 2024.
- Amar Singh covered a distance of 272 km in this race and covered an average distance of 11.35 km per hour.
- So far, Amar Singh has won 5 medals at the international level. These include 4 gold medals and 1 silver medal.
- This championship was organized under the aegis of the International Association of Ultra Runners.
- Amar Singh is currently a Corporal Soldier in the Air Force.

## Dakshina Joshi won three gold medals in swimming

- Asmita Khelo India Women's Series - 2 West Zone Swimming Competition was held in Khel gaon, Udaipur under the joint aegis of Union Ministry (Sports and Youth Affairs) and Swimming Federation.
- In this competition, Dakshina Joshi of Jaipur won three gold medals in 200 m butterfly, 100 m butterfly and 200 m backstroke.
- Earlier in the year 2023, Dakshina Joshi won the title of Best Swimmer in the SGFI State Tournament.

## Diksha Jat won bronze medal in Senior Wrestling Federation Cup

- 'Senior Wrestling Federation Cup-2024' was organized in Varanasi.
- In this, Diksha Jat of Deeg district won a bronze medal.
- Diksha has earlier won silver medal in Federation Cup 2022 and bronze medal in Senior National Championship 2023.

## Mahipal Singh won gold medal in Indian Open Shotgun

- Mahipal Singh Shekhawat of Rajasthan has won the gold medal in the 164th Indian Open Competition Shotgun 2024.

- In this, the silver medal was won by Priyanshu Pandey (Army) and the bronze medal was won by Maninder Singh (Punjab).
- This championship was organized by the National Rifle Association in Bathinda (Punjab).
- More than 50 shooters from Punjab, Haryana, Uttar Pradesh, Tamil Nadu, Rajasthan, Madhya Pradesh and Chhattisgarh participated in all categories of this tournament.

### Chandra Pratap Singh selected in English County Cricket

- Chandra Pratap Singh of Jaipur has been selected to play English County Cricket.
- He has signed a one-year contract with Surrey County, London for the season-2024 of English County Cricket.
- This is his 5th season in England.
- Chandra Pratap Singh has represented Rajasthan in junior and sub-junior cricket.

### 2 Para players of Rajasthan won 5 gold and 1 silver medals

- Two para players of Rajasthan Blind School won 5 gold and 1 silver medals in the **23rd National Para Swimming Championship**.
- **Suraj Bhan Meena** won gold in 100 m freestyle and 50 m freestyle, and silver in 50 m backstroke.
- **Anmol Saran** won gold medals in 100 m freestyle, 50 m backstroke and 50 m freestyle in the sub junior category.

### Rajasthan Wushu team won 27 medals including 4 gold medals

- The Rajasthan Wushu team performed brilliantly in the 23rd Sub Junior National (Boys/Girls) Wushu Competition and the All India Sub Junior and Junior Women Wushu League, and won a total of 27 medals including 04 gold, 09 silver and 14 bronze medals.
- It was held in Jammu from 26 to 31 March 2024 under the aegis of the Indian Wushu Association.

### National Powerlifting Championship 2024

- It was organized in Raipur (Chhattisgarh) in April 2024.
- In this championship, in the sub junior category, Rajasthan's Aman (157 kg weight category) and Vineet (147 kg weight

category) won bronze medals, Deepak (182 kg weight category) and Saurabh (148 kg weight category) won silver medals and Bhura Pahalwan (180 kg weight category) won the Strong Sub Junior trophy along with the gold medal.

- Sahab Singh and Lalit Singh won silver medals in the junior category.

### Lavmeet Kataria included in the Selection Committee of the Indian Volleyball team

- Lavmeet Kataria, an international player from Rajasthan, has been made a member of the 6-member committee formed for the selection of Indian players.
- This committee will select the Under-18, Under-20 and Senior Volleyball team of the Indian volleyball team.
- Lavmeet was also previously included in the selection committee of the Indian team for the Asian Games held in China.

### Avyansh Singh

- He is a cricket player from Bharatpur district.
- He has been contracted as an overseas player in the County Division League of the England Cricket Board.
- Avyansh has also played in the Premier League of the South Africa Board in the year 2021-22.
- Avyansh has also represented the Rajasthan team in the Under-23 C.K. Nayudu Trophy.

### Rajasthan won Gold Medal in Basketball

- Rajasthan won gold medal in boys category in the 38th Youth National Basketball Championship held in Puducherry.
- Rajasthan defeated Punjab by 85-77 in the final match.
- Rajasthan's girls team finished fourth.

### Rajasthan won 5 gold, 1 silver and 1 bronze medal in Combat Wrestling National Competition

- The first Combat Wrestling National Competition was organized by Combat Federation of India in Jagannath Puri, Odisha.
- Rajkumar, Kartar Singh, Abhishek Sharma, Hardik Chaudhary and Pooja Gurjar of Rajasthan won gold medals while Rahul Yogi won silver medal and Rahul Singh won bronze medal in this competition.

## Pana Devi Godara won 3 gold medals in National Master Athletics Championship

- Rajasthan's elderly woman Pana Devi Godara (92 years old) has won three gold medals in the 44th National Master Athletics Championship 2024 held in Pune.
- These 3 gold medals were won in 100 meter race, shot put, discus throw events.
- Pana Devi is from Anaisar village of Nokha tehsil of Bikaner district.
- She will participate in the World Championship to be held in Sweden in August 2024.

## Akshita Dagar

- Akshita Dagar of Jaipur won the gold medal in the 11 years age group in the All India Raha Cup Karate Championship held in Jaipur.

# Important facts

## 7 such leaders of Rajasthan who were members of all the Houses of the Center and the State

- The number of leaders representing **all three houses of Lok Sabha, Rajya Sabha and State Legislative Assembly from Rajasthan** is 7.
  1. Jagannath Pahadia
  2. Jagdish Prasad Mathur
  3. Kirori Lal Meena
  4. Narendra Budania
  5. Ramniwas Mirdha
  6. Kumbharam Arya
  7. Kanakmal Katara

## Jagannath Pahadia

- In 1980, Jagannath Pahadia became the **first Chief Minister of Rajasthan from Scheduled Caste** for 11 months.
- He was appointed the **Governor of Bihar in 1989 and that of Haryana in 2009**.
- Jagannath Pahadia had won the Assembly elections in 1980, 1985, 1990 and 2003 as well as Lok Sabha elections in 1957, 1967, 1971 and 1980, while he was elected as a Rajya Sabha member in 1965.

## Jagdish Prasad Mathur

- He was the first state president of BJP.
- Jagdish Prasad was elected as MLA from Sikar in 1957 and Lok Sabha MP in 1977. He was elected as Rajya Sabha member in 1972.

## Kirori Lal Meena

- Kirori Lal became MLA from different assemblies in 1995, 1998, 2003, 2013 and 2023 and won the Lok Sabha elections from Sawai Madhopur in 1998 and Dausa in 2009.
- Meena was elected Rajya Sabha MP in 2018.

## Narendra Budania

- Narendra Budania was MLA from Taranagar in 2023, while he was Lok Sabha MP from Churu in 1985, 1996 and 1998 and Rajya Sabha member from 2012 to 2018.

## Ramniwas Mirdha

- Ramniwas Mirdha was a minister along with MLA in Rajasthan Legislative Assembly from 1953 to 1967.
- He was a Rajya Sabha member in 1967, 1968 and 1974 and **Rajya Sabha Deputy Chairman from 1977 to 1980**.
- Apart from this, he was elected as MP from Barmer in the 1991 Lok Sabha elections.

## Kumbharam Arya

- Janata Dal's founder president Kumbharam Arya won the election from Churu assembly as an independent in 1952.
- In 1968, he was elected as Rajya Sabha member from Bharatiya Kranti Dal. Apart from this, he won the Lok Sabha election from Sikar from Lok Dal in 1980.

## Kanakmal Katara

- Kanakmal Katara was MLA from Sagwara in 2002 and 2003 and was elected as Lok Sabha member from Banswara in 2019.
- Kanakmal Katara was elected Rajya Sabha member in 1994.

## 2. NATIONAL AFFAIRS

### Polity and Governance

#### 'Right to be free from adverse effects of climate change' is included in the fundamental rights: Supreme Court

- This decision was given in a case related to the existence of the endangered Great Indian Bustard (Godawan) species.
- For the first time, the Supreme Court has given a balanced decision between climate and ecology. This decision was given in the case 'MK Ranjit Singh vs Union of India'.
- The Supreme Court has struck a balance between the change in coal and gas-based power generation (solar energy generation) and the protection of the endangered Great Indian Bustard (Great Indian Bustard).

#### Decision

- The Supreme Court has lifted the ban on power transmission lines in 77,000 sq km, leaving the main habitat of Great Indian Bustard of 13,000 sq km.
- This decision was focused on creating a balance between increasing renewable energy production and the safety of birds.
- Most of the Great Indian Bustard birds die due to collision with electric wires, so the ban on high voltage wires was imposed on the basis of the arguments of environmentalist M.K. Ranjit Singh.
- The Supreme Court decided to expand the scope of Articles 14 and 21 by including the 'Right to be Free from the Adverse effects of Climate Change'.
- Accepting the plea of different ministries of the government, the apex court said that Article 21 recognises the right to life and personal liberty while Article 14 mentions equality before law and equal protection of laws to all persons.
- These articles are important sources for the 'right to clean environment and right to be free from adverse effects of climate change'.

- The Supreme Court said that 'the right to clean environment' is included in the 'right to life'.
- The 'right to health' is also a part of the 'right to life' under Article 21. This right is affected due to factors such as air pollution, rising temperatures, droughts, reduced food supply due to crop failure, storms and floods.
- The inability of disadvantaged communities to adapt to climate change or deal with its effects violates the right to life (Article 21) as well as the right to equality (Article 14).
- The court said that India aims to achieve 175 GW of installed renewable energy capacity (excluding large hydropower) by 2022 the future target is to install 450 GW of capacity by 2030.
- This is a target that reflects the country's commitment to adopt clean energy.

#### Constitutional provisions related to environment

- Article 48A of the Constitution states that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.
- Fundamental duties: Article 51A (g) states that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion towards all living creatures.

#### Issue

- The case relates to the protection of Great Indian Bustards from collision with electric wires and allocation of land for solar energy.
- Great Indian Bustards are mainly found in Rajasthan. The judges overturned the Supreme Court order of April 2019.
- On April 19, 2021, the Supreme Court had ordered a ban on power transmission lines in an area of 90,000 square kilometers in Rajasthan and Gujarat.

- This decision was expected to reduce solar power generation and the target of increasing renewable energy capacity to 450 GW by 2030 could also not be met.
- The Union Ministry of Environment, Forest and Climate Change, Ministry of Power and Ministry of New and Renewable Energy urged to reconsider this decision and amend the instructions.
- The central government argued that it is not technically possible to lay high voltage power lines underground.

## Women's participation in the workforce is a constitutional right protected by Article 15 - Supreme Court

- The Supreme Court underlined the importance of the provision of Child Care Leave (CCL) for women's participation in the workforce.
- This decision will have a significant impact on the status of women in employment in the country.
- The Supreme Court **said that participation of women in the workforce is not merely a matter of privilege but it is a constitutional right protected by Article 15.**
- The State as an ideal employer cannot remain oblivious to the special concerns that relate to women employed in the workforce of its government.
- If the State does not make such a provision, a mother may be forced to leave the workforce in the absence of provision of child care leave.
- The Supreme Court has directed the Chief Secretary of the State to constitute a 3-member committee to look into all aspects of the matter.
- The Supreme Court was hearing a plea by an Assistant Professor in a government college in Himachal Pradesh, who was denied Child Care Leave (CCL) introduced by the Sixth Central Pay Commission for Central Government employees in 2008.
- The woman employee had sought leave to care for her child suffering from a rare genetic disorder.
- Note: As per the Central Government rules, a female Government servant who has minor children below the age of eighteen years and who does not have any earned

leave, can be granted child care leave by the authority competent to grant leave for a maximum period of two years, i.e. 730 days, however this leave is for the entire service period for the care of up to two children.

## Supreme Court withdraws decision on abortion of 14-year-old rape victim

- The Supreme Court on 29 April 2024 withdrew its 22 April judgment which allowed the abortion of a 30-week pregnancy of a 14-year-old rape victim.
- The victim girl and her parents told the Supreme Court that abortion may cause health concerns to the victim, so it was decided to give birth to the child.
- A three-judge bench headed by Chief Justice DY Chandrachud overturned its earlier order after talking to the victim's parents over video conferencing.
- Earlier on 22 April 2024, the **Supreme Court allowed medical termination of 30 weeks pregnancy of a 14-year-old rape victim of Maharashtra.**
- The Supreme Court had set aside the order of the Bombay High Court, which refused to allow abortion.
- The Supreme Court did full justice by exercising its special powers under **Article 142** of the Constitution to allow abortion.

## Medical Termination of Pregnancy Act (MTPA)

- It was enacted to provide for termination of pregnancy by registered medical practitioners.
- As per the Medical Termination of Pregnancy Act 1971 (MTPA), the maximum period for termination of pregnancy is 24 weeks.
- **Note:** The Act allows termination of pregnancy up to 20 weeks on the advice of a doctor.
- In certain cases (including married women as well as women belonging to special categories such as rape victims, vulnerable women, and women with disabilities), the right to terminate pregnancy may be granted at 20-24 weeks.
- Under the Medical Termination of Pregnancy (MTP) Act, termination of pregnancy beyond 24 weeks is generally prohibited, unless the pregnancy is life threatening to the woman or involves significant abnormalities in the fetus.

## Candidates contesting elections also have right to privacy: Supreme Court

- The Supreme Court has held that candidates contesting elections are not required to disclose every movable property owned by them or their dependents.
- Note: The right to privacy falls under **the right to life and personal liberty** under **Article 21 of the Constitution**. Candidates will only have to disclose information about assets that are of substantial value or represent a luxurious lifestyle.
- According to the judgment, voters do not have the right to know about every asset of a candidate.

### Issue

- The Supreme Court gave this judgment while hearing a case related to Arunachal Pradesh's independent MLA Karikho Kri.
- The Supreme Court upheld the election of Karikho Kri from Tezu in the 2019 Arunachal Pradesh Assembly election.
- While hearing a petition filed by Congress candidate Nuni Tayang challenging the declaration of the 2019 assembly election result, the High Court had declared Karikho Kri's election void.

## Supreme Court's Judgment and Importance of Curative Writ Petition

- Recently, the Supreme Court of India, using its extraordinary powers, repealed its own judgment of 2021.
- Delhi Metro Rail Corporation got relief from the order to pay ₹7,687 crore to Delhi Airport Metro Express Private Limited (DAMEPL).
- This decision underlines the importance of curative writ of the court on one hand. It also shows the potential conflict between the final decision and actual or Substantive Justice.
- In this case, an arbitral tribunal had ruled in 2017 in favor of DAMEPL, which got the contract to build, maintain and operate the line from New Delhi Railway Station to Delhi Airport.

### Curative Writ Petition

- Curative writ petition is not mentioned in the Constitution. Under this, 'serious injustice' can be prevented due to technical deficiency in the decision of the Supreme Court. The Supreme Court first clarified the concept of curative writ in Rupa Ashok Hurra Vs Ashok Hurra case, 2002.

- Under this, a curative petition can be considered only if the petitioner proves that the principles of natural justice have been violated, and the court did not hear him before passing the order.
- This writ is filed after the Supreme Court refuses to review its own decision.
- There are only two main grounds for considering such a petition:
  - Preventing abuse of process
  - Preventing serious injustice.
- Under the curative petition, the Supreme Court can review and amend its decision even after the review petition is dismissed.

## The Supreme Court dismissed the petition to cross-verify all VVPATs and EVMs

- On 26 April 2024, the Supreme Court dismissed all the petitions demanding cross-verification of all VVPATs and EVMs.
- Apart from this, the petition filed demanding ballot paper was also dismissed.
- This decision was given by the bench of Justice Sanjeev Anna and Justice Dipankar Dutta of the Supreme Court.
- The Supreme Court said that voting will be done only through Electronic Voting Machines (EVMs) and 100% matching of EVM-VVPAT will not be done.
- The VVPAT slip will be kept safe for 45 days and these slips will be safe with the signatures of the candidates.
- The Supreme Court has directed that the symbol loading units should also be sealed and secured after the election.
- Apart from this, the candidates will have the option of getting the EVM's microcontroller program checked by the technical team after the declaration of the results, which can be done within 7 days of the election announcement.
- The candidates will have to bear the cost of VVPAT verification themselves. If in any case the EVM is found to be tampered with, the cost will be refunded.
- **Note:** In March 2023, the Association for Democratic Reforms (ADR) had filed a petition demanding matching of 100% EVM votes and VVPAT slips.
  - The petitioner requested for a complete counting of Voter Verifiable Paper Audit Trail (VVPAT) slips and suggested simultaneous VVPAT verification.

- At present, under VVPAT verification, EVM votes and VVPAT slips of only 5 polling stations of each assembly constituency of the Lok Sabha constituency are matched.

### VVPAT

- Its full name is 'Voter Verifiable Paper Audit Trail'.
- It has been designed by Bharat Electronics Limited (BEL) and Electronic Corporation of India Limited (ECIL).
- VVPAT was first used in the 2013 Nagaland Assembly by-election.
- After this, it was also used on some seats in the Lok Sabha elections in 2014.
- VVPAT was used for the first time at all polling stations in the Lok Sabha elections of 2019.
- Its purpose is to bring transparency in the voting process.
- This machine is connected to the EVM, and as soon as the voter casts his vote, a slip appears in the VVPAT. This slip contains the name and election symbol of the candidate he has voted for.
- This slip is visible on the VVPAT screen for 7 seconds.
- With the help of VVPAT, it can be ensured whether the vote has gone to the person for whom the voter has voted.

### Petition to re-conduct election if NOTA gets more votes

- A petition has been sought in the Supreme Court to cancel the election and order a fresh election if the NOTA (None Of The Above) option gets more votes than the candidates contesting elections.
- The Supreme Court has sought a reply from the Election Commission of India on this PIL on 26 April 2024.
- This PIL has been filed by activist and lawyer Shiv Ayeda.
- Following the Supreme Court's decision, the option of NOTA was provided to voters in the elections in 2013.
- The PIL also demands a ban on candidates, who get less votes than NOTA, from contesting all elections for a period of 5 years.

### NOTA (None Of The Above)

- On 27 September 2013, in the People's Union for Civil Liberties case, the Supreme Court of India ruled that voters should have the option to choose 'None Of The Above' (NOTA) while casting their vote.

- The Supreme Court directed the Election Commission of India to add a button in the EVM in this regard.
- Currently, if NOTA gets the most votes in a constituency, the candidate with the second highest number of votes is declared the winner.
- NOTA is a neutral vote, unlike a negative vote, and has no numerical value.
- NOTA is not yet a popular option in Indian elections. In the Lok Sabha elections of 2019, NOTA got only 1.06% of the votes, which is less than the 1.08% votes it got in the 2014 elections.

### No relief to Kerala in Net Borrowing Ceiling (NBC) case, Supreme Court refers matter to constitutional bench

- The Supreme Court refused to grant interim relief to the Kerala government in the dispute with the Center over the state's excess borrowing powers and referred the matter to a larger constitutional bench.
- In addition, the Supreme Court also refused to put a stay on some changes made in the FRBM Act 2003 in 2018, which imposes borrowing restrictions on states.
- The scope of judicial review related to fiscal policy will also be examined by the constitutional bench.
- Kerala appealed against the central government in the Supreme Court under **Article 131** of the Constitution. Under this article, **disputes of state versus state, state versus center in the country can be appealed to the Supreme Court.**
- The Supreme Court accepted the argument of the central government that if a state uses more of its borrowing powers in a financial year, it may fall short of funds in the following years.
- The court referred the matter to a five-judge Constitution bench to resolve broader questions of interpretation of Articles 131 and 293 of the Constitution.
- Under **Article 131, the Supreme Court has original jurisdiction over legal issues arising between the Centre and the states.**
- Article 293 deals with grants, power to borrow externally and how it is regulated by the Union (Centre).

- Since Article 293 has not been officially interpreted before, the bench referred the matter to a five-judge bench for further consideration.

### Centre vs Kerala dispute

- Kerala had sought permission to borrow ₹19,351 crore from the Centre. While the Centre agreed to allow additional borrowing of ₹13,608 crore.
- The Centre argued that Kerala's financial challenges were due to its mismanagement and that the state was provided with adequate financial resources by the Centre.
- Kerala accused the central government of arbitrarily imposing a net borrowing limit (NBC) on the state, leading to a financial crisis in the state.
- Finance Minister Nirmala Sitharaman had clarified in Parliament in December 2023 that there is no proposal to relax rules on the borrowing capacity of state governments for FY 2024, including Kerala.

### Net Borrowing Ceiling

- It puts a limit on a state's borrowing from various sources, including open market borrowings.
- On the recommendation of the 15th Finance Commission, the NBC for states has been fixed at 3% of the gross state domestic product (GSDP) or ₹8,59,988 crore in absolute terms for the financial year (FY) 2023-24.
- To achieve this target, the central government decided to cut liabilities arising from the Public Account of States.
- The Centre has imposed the NBC using its powers under Article 293(3).

### Constitutional and legal provisions regarding financial autonomy of states

- Article 293 allows states to borrow from the Consolidated Fund of the State on guarantee only within the territory of India and within the limits specified by the legislatures of each state.
- Under Article 293(3), a state has to take the consent of the Centre to take any loan if any part of the previous loan given by the Centre is outstanding.
- The subject 'Public Debt of the State' is included in the State List in the Seventh Schedule, which means that Parliament cannot legislate or administer such matters.

### 'Vote from Home' for the first time in Lok Sabha elections

- The Election Commission of India (ECI) has provided the facility of voting from home for the elderly and Divyangjan for the first time in the Lok Sabha elections 2024.
- 'Vote from Home' facility will be provided to the following-
  - Voters above 85 years of age
  - PwDs with 40% disability
- Its objective is to ensure inclusiveness and accessibility of the electoral process and strengthen democratic participation.
- More than 81 lakh elderly voters above 85 years of age and more than 90 lakh Divyang voters are registered in the country.
- This facility confirms the Election Commission's motto 'No voter should be left out'.
- Under this, within five days of the election notification, eligible voters have to fill Form 12D and submit it to the Returning Officer.

## 3. ECONOMY

### RBI to set up Digital India Trust Agency (DIGITA)

- The Reserve Bank of India will set up a Digital India Trust Agency (DIGITA) to keep an eye on illegal lending apps.
- This agency will verify digital lending apps and maintain a public register of verified apps.
- Apps without DIGITA's signature will be considered unauthorized for the purpose of law enforcement.
- This agency will also act as an important checkpoint in the fight against financial crimes in the digital sector. This verification process will bring more transparency and accountability in the growing digital lending sector.
- **Note:** From September 2022 to August 2023, more than 2,200 digital lending apps (DLAs) have been removed from Google Play Store.

### National Fertilizers Limited and IREDA get 'Navratna' company status

- The Department of Public Enterprises (DPE) under the Ministry of Finance granted Navratna status to National Fertilizers Limited (NFL) on 18 April 2024 and Indian Renewable Energy Development Agency (IREDA) on 26 April 2024.
- After getting this status, the company will be able to work with more operational independence.

### Criteria for granting Navratna status to CPSE

- Central Public Sector Enterprises (CPSEs) which are under Miniratna I Schedule 'A' and have shown 'excellent' performance in 3 out of the last 5 years.
- CPSEs having an overall score of 60 or more (out of 100) in the following 6 selected performance indicators can be granted Navratna status:
  1. Net profit to net worth (25)
  2. Manpower cost to total production cost or service cost (15)
  3. Profit before depreciation, interest and tax (PBDIT) to capital employed (15),
  4. PBDIT to turnover (15)
  5. Earnings per share (10)
  6. Inter-sectoral performance (20)

- The grant of Navratna status exempts a CPSE from seeking approval of the Central Government for investments **up to Rs 1,000 crore.**
- Navratna companies are allowed to invest up to 15% of their total assets on a single project or 30% of their total assets in a given year. This is subject to the limit of Rs 1,000 crore.

### Navratna Companies in India

- At present there are 18 Navratna Companies in India.
  1. Bharat Electronics Limited
  2. Container Corporation of India Limited
  3. Engineers India Limited
  4. Hindustan Aeronautics Limited
  5. Mahanagar Telephone Nigam Limited
  6. National Aluminium Company Limited
  7. National Buildings Construction Corporation Limited
  8. Neyveli Lignite Corporation Limited
  9. NMDC Limited
  10. Rashtriya Ispat Nigam Limited
  11. Shipping Corporation of India Limited
  12. Rail Vikas Nigam Limited
  13. ONGC Videsh Limited
  14. Rashtriya Chemicals and Fertilizers Limited
  15. IRCON International Limited
  16. RITES Limited
  17. National Fertilizers Limited (NFL)
  18. Indian Renewable Energy Development Agency (IREDA)

### National Fertilizers Limited

- NFL is a Navratna company whose registered office is in New Delhi.
- This company was incorporated on 23 August 1974.
- Its corporate office is in Noida (Uttar Pradesh).
- Its authorized capital is Rs 1,000 crore and paid-up capital is Rs 490.58 crore, out of which 74.71% is owned by the Government of India and 25.29% is owned by financial institutions.

- National Fertilizer is also known as NFL. It is the second largest urea manufacturer in the country.
- The fertilizer products of this company are sold under the brand name 'KISAN'.

### Indian Renewable Energy Development Agency (IREDA):

- IREDA is a non-banking financial institution under the Ministry of New and Renewable Energy (Government of India).
- It was established in March 1987.
- In the year 2015, IREDA was given the status of Mini Ratna (Category-I).
- In 2023, IREDA was upgraded from Schedule B to Schedule A category Central Public Sector Enterprises.
- IREDA provides financial assistance for setting up projects related to new and renewable sources of energy.
- The Central Government has a 75% ownership stake in it.

### Direct tax collection increased by 17.7%

- India's net direct tax collection increased by 17.7% to Rs 19.58 lakh crore in 2023-24, which is more than the revised estimates of the year.
- The Central Government had set a target of Rs 18.23 lakh crore for the financial year 2023-24 in the budget.
- Direct tax collection in the year 2022-23 was Rs 16.64 lakh crore.
- According to the data released by the Ministry of Finance, the collection of personal income taxes increased from 50.06% to 53.3%.
- The contribution of corporate taxes has come down to 46.5% from 49.6% last year.

### Inheritance Tax

- Recently, a controversy erupted in an interview given by Sam Pitroda (President of Indian Overseas Congress) when he said that the US imposes inheritance tax and India may also consider implementing it.
- Inheritance/wealth tax is generally applicable only on that portion of the estate that exceeds a certain threshold amount (varies in different parts of the world).
- Inheritance tax is levied above a predetermined threshold. As the value of the inheritance/wealth increases, the tax rate increases.

- The primary purpose of inheritance taxes is to raise government revenue and promote wealth redistribution.
- In recent years, inheritance tax has been abolished in many countries.
- According to data released by the Tax Foundation, since 2000, 11 countries have abolished inheritance tax.

### Difference between Estate Tax and Inheritance Tax

- Estate tax is levied on the total value of the deceased person's assets, while inheritance tax is levied on the beneficiaries who inherit the assets.

### Global Perspective:

- Inheritance tax across the world is as follows:
  - Japan – 55%
  - South Korea – 50%
  - France – 45%
  - United Kingdom – 40%
  - United States – 40% (only in Iowa, Kentucky, Maryland, Nebraska, New Jersey and Pennsylvania)

### Indian Perspective

- **Note:** Currently, there is no tax on inherited property in India, as it was abolished in 1985 but it continued in the form of estate tax until it was abolished in 2015.
- Currently, there is no specific estate tax in India. However, if some inherited properties are sold then capital gains tax may be applicable on them.

### Estate Duty

- Estate duty (inheritance tax) was introduced in 1953 under the Estate Duty Act to reduce economic inequality in India.
- This tax was levied on the total value of the assets held by an individual at the time of his death. When the property was passed on to the heirs, they had to pay the tax.
- This duty was levied on all immovable as well as movable properties located in India or outside.
- The reasons for its abolition include different rules for valuing different types of property, litigation, and high cost of tax collection.
- This tax was finally abolished in 1985 by the then Finance Minister VP Singh.

Benefits of Inheritance Tax	Challenges of Inheritance Tax
<ul style="list-style-type: none"> <li>• Increase in government revenue.</li> <li>• Reduction in wealth inequality in the country.</li> <li>• Promotes equality of opportunity.</li> <li>• Ensures greater contribution to society from the rich.</li> <li>• Encourages optimal use of wealth.</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility of tax evasion and double taxation on assets already taxable.</li> <li>• Encouragement of black money and benami properties.</li> <li>• Will discourage investment and wealth creation.</li> <li>• Administrative complexity and cost of implementing the tax.</li> </ul>

**RBI sets eligibility for Small Finance Banks (SFBs) to become Universal Banks**

- The Reserve Bank of India (RBI) on April 27, 2024 issued guidelines for voluntary transformation of Small Finance Banks (SFBs) into Universal Banks. Applications for conversion of SFBs to Universal Banks will be evaluated as per the guidelines for 'on tap' licensing of Universal Banks in the private sector dated August 1, 2016.

**Eligibility**

- Only SFBs listed on the Stock Exchange will be eligible to become Universal Banks.
- Such SFBs should have a minimum net worth of Rs 1,000 crore.
- Such SFBs should have Scheduled status and a good track record of at least five years with gross non-performing assets (NPA) of 3% or less and net NPA of 1% or less in the last two financial years.
- The interested SFB should have reported net profit in the last two financial years and have met the prescribed capital adequacy norms.
- SFBs with diversified loan portfolios will be given preference.

**Universal Banks**

- Universal Banks (UB) are financial entities such as commercial banks, financial institutions, NBFCs that carry out financial transactions.
- Universal banking offers a wide range of banking and financial services including insurance, development banking, investment banking, commercial banking and other financial services on a single platform.
- Universal Bank was designated as a Development Financial Institution (DFI) by the Narasimham Committee.

**Small Finance Banks (SFB)**

- Small Finance Banks (SFBs) are Financial Institutions registered as public limited companies.
- They provide banking and credit services to the underbanked and unbanked areas of the country.
- The concept of SFB was formulated by the Raghuram Rajan Committee.
- Following the Union Budget announcement for the year 2014-15, RBI issued guidelines for Small Finance Banks in November 2014.
- SFBs are registered as public limited companies under the Companies Act, 2013.
- Small Finance Banks in India are regulated by the Reserve Bank of India.
- About 75 per cent of the loans given by Small Finance Banks are required to be given to the priority sector.

**On-tap bank licensing**

- The On-tap bank licensing facility provides a window to apply for a bank license with RBI throughout the year.
- This window was introduced in 2016.
- It was introduced with the objective of enhancing financial inclusion and creating more financing institutions.

**India aims to create its first privately managed Strategic Petroleum Reserve (SPR) by 2029-30**

- India is the world's third-largest oil importer and consumer.
- It aims to expand its SPR capacity to protect against global supply disruptions and price increases.
- It allows private lessees, mostly oil companies, to trade crude oil.
- So far, India has allowed only partial commercialisation of its three existing SPRs in southern India, which have a combined capacity of 36.7 million barrels.

- India plans to build two new SPRs with private partners, who will be allowed to trade all the oil locally.
- The first is an 18.3 million-barrel reserve **at Padur in Karnataka state**, and the **second is a 29.3 million-barrel SPR in Odisha state**.
- The government will have the first right to crude oil in case of a shortage in the country.
- Expanding oil storage capacity will also help India join the International Energy Agency (IEA), which requires its members to reserve a minimum of 90 days of oil demand.
- India's oil reserves, including the SPR volumes, are sufficient to meet about 66 days of oil demand.
- According to the Indian Strategic Petroleum Reserves Ltd (ISPRL), the Padur SPR and its associated pipeline and oil import facility will cost about Rs 55 billion (\$659 million), with the central government providing up to 60% of the total cost.
- The bidder requiring the least central funding or paying the highest premium for a 60-year lease will be given the rights to the SPR.

### Monetary Policy Committee (MPC) meeting

- The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) met in Mumbai on 3-5 April.
- This meeting was chaired by the bank's Governor Shaktikanta Das.
- This was the first bi-monthly (April-May) monetary policy review meeting of the current financial year (2024-25).
- In this meeting, the RBI decided to keep the repo rate unchanged at 6.5 percent.
- This is the seventh consecutive time when the RBI has not made any change in the key rates.
- The MPC last increased the repo rate in February 2023 when it was increased from 6.25 percent to 6.5 percent.

### Monetary Policy Committee (MPC)

- The Monetary Policy Committee of the Reserve Bank of India (RBI) currently has 6 members.
- Three members are from RBI and three are independent members appointed by the Government of India.

- The committee is chaired by the Governor of the Reserve Bank of India.
- This committee was formed on the basis of the recommendation of the Urjit Patel Committee.

### Effect of change in repo rate

- The rate at which the Reserve Bank gives loans to banks is called repo rate.
- With an increase in the repo rate, banks get loans from RBI at higher interest.
- With an increase in the repo rate, people are encouraged to deposit their savings in the bank instead of investing them, which will reduce demand and inflation can be reduced.
- RBI increases the policy repo rate to control rising inflation (inflation rate), while it reduces the repo rate to increase demand in the market.

### Current rates

- Policy Repo Rate (RR) 6.50%
- Reverse Repo Rate (RRR) 3.35%
- Marginal Standing Facility Rate (MSF) 6.75%
- Bank rate (BR) 6.75%
- Cash Reserve Ratio (CRR) 4.50%
- Statutory Liquidity Ratio (SLR) 18%

### SCORES 2.0 launched by SEBI

- Its full name is SEBI Complaint Redressal System.
- It is a web-based centralized complaint redressal system of Securities and Exchange Board of India (SEBI).
- It enables investors to register their complaints and track the status of grievance redressal online on this website from any location.
- It enables market intermediaries and listed companies to receive and resolve complaints from investors online.
- The time limit for resolution of complaints has been reduced to 21 calendar days in SCORES 2.0.
- Apart from this, there will be two levels of review, first by the 'designated body' and if the investor is dissatisfied, then SEBI will review at the second level.
- Under this, SCORES 2.0 will be integrated with the KYC registration agency database for easy registration of the investor.

**Securities and Exchange Board of India (SEBI)**

- It is a statutory body.
- It was constituted on April 12, 1988 as a non-constitutional body through a resolution of the Government of India.
- It was given a statutory status in the year 1992 and the provisions of the Securities and Exchange Board of India Act, 1992 came into force on January 30, 1992.
- Its main function is to protect the interests of investors investing in securities and to promote and regulate the securities market.
- Its headquarters is located in Mumbai and regional offices are in Ahmedabad, Kolkata, Chennai and Delhi.
- At present its Chairperson is Ms. Madhabi Puri Buch (first woman Chairperson of SEBI).

**NABARD partnered with RBI Innovation Hub (RBIH) to accelerate digital agricultural lending**

- Under this, a system will be established that will enable faster processing of agricultural loans.
- NABARD will integrate the e-KCC loan origination system portal with the Public Tech Platform for Frictionless Credit (RBIH) of the Reserve Bank Innovation Hub (RBIH).
- NABARD has developed the loan origination system portal to facilitate digital processing of Kisan Credit Card (KCC) loan for cooperative banks and regional rural banks (RRBs).
- This partnership will ensure prompt delivery of loans to farmers by digitizing agricultural loans, as well as improve the efficiency of banks.

**Reserve Bank Innovation Hub**

- Reserve Bank Innovation Hub was established in Bengaluru on March 24, 2022.
- Its objective is to encourage and nurture financial innovation in a sustainable manner through institutional framework.
- It has been established as a wholly-owned subsidiary of RBI under the Companies Act, 2013.
- RBIH has been set up with an initial capital of Rs 100 crore.
- Its goal is to create an ecosystem that focuses on promoting access to financial services and products for the low-income population in the country.

**Authorised Economic Operator (AEO) status to Gems and Jewellery sector**

- The Union Finance Ministry has given Authorised Economic Operator (AEO) status to the Gems and Jewellery sector.
- **Asian Star**, a leading diamond and diamond jewellery manufacturer, has become the first company in the gems and jewellery industry to receive AEO status.
- An entity with AEO status is considered a 'secure' trader and a reliable business partner.

**Authorized Economic Operator (AEO) Programme**

- It is a programme under the aegis of the World Customs Organization SAFE Framework of Standards (WCO SAFE FoS) to secure and facilitate global trade.
- The AEO programme was launched as a pilot project for export-oriented industries to promote ease of doing business.
- The AEO programme helps in simplifying export operations in various sectors, thereby saving time and cost for exporters.
- The aim of the programme is to enhance international supply chain security and facilitate legitimate trade.
- Under this programme, a unit engaged in international trade is approved by Customs as compliant with supply chain security standards.
- India's AEO programme is in line with the commitments made under Article 7.7 of the WTO's Trade Facilitation Agreement.

**Gross merchandise value (GMV) of Government e-Marketplace (GeM) reaches Rs 4 trillion**

- According to the Ministry of Commerce, the Gross Merchandise Value (GMV) of Government e-Marketplace (GeM) has reached Rs 4 trillion in the current financial year 2023-24.
- This is mainly due to the active purchase of goods and services by government departments through the portal.
- The portal offers a range of 12,070 products and over 320 services to more than 1.5 lakh government customers.
- The purchase of services on GeM increased from Rs 8,500 crore in FY 2020-21 to Rs 66,000 crore in FY 2022-23.

- As part of its initiative to promote Make in India products, it has assisted over 22,290 startups to establish their presence in the Indian market.
- Major Central Public Sector Enterprises such as Coal India Limited, NTPC Limited, Oil and Natural Gas Corporation Limited and Bharat Petroleum Corporation Limited have actively used GeM for their service procurement requirements.
- In addition, several states and union territories including Gujarat, Uttar Pradesh, Delhi, Uttarakhand and Punjab have chosen GeM on priority basis for procurement of services.
- GeM has also launched **Startup Runway 2.0**, where startups get an opportunity to showcase their innovative products and services to government buyers and participate in public procurement.

### GeM Portal

- It was launched on 9th August 2016 by the Ministry of Commerce and Industry.
- It is the online purchase platform of the Central Government, which is available only for public sector undertakings, government departments, cooperatives and civic bodies.
- Its main objective is to create a free and transparent purchase platform for government buyers.

### IRDAI removes age limit for individuals buying health insurance policy

- The Insurance Regulatory and Development Authority of India (IRDAI) has removed the age limit of 65 years for individuals buying health insurance policies to expand the market and promote adequate protection from health care expenses.
- This decision will prove to be helpful for people to get full coverage.
- This will ensure adequate protection against unforeseen medical conditions.
- Insurers cannot deny coverage to individuals with serious medical problems such as cancer, heart or kidney failure and AIDS.

### Adani Green becomes first Indian company to have 10,000 MW renewable energy capacity

- It is the first company in India to have more than 10,000 MW of renewable energy capacity.
- Adani Green now has the largest operating portfolio in India with 10,934 MW.
- In FY24, 2,848 MW of new renewable energy capacity was added.
- Its operating portfolio includes 7,393 MW of solar, 1,401 MW of wind and 2,140 MW of wind-solar hybrid capacity.
- It aims to have 45 GW of renewable energy by 2030.
- Adani Green is building the world's largest renewable energy facility at Khavda in Gujarat.

## 4. INTERNATIONAL AFFAIRS

### India gets rights to operate Sittwe port in Myanmar

- India has got the rights to operate Sittwe port in Myanmar.
  - Sittwe is the second foreign port after Chabahar in Iran whose operation rights have been given to India.
  - India's Ministry of External Affairs has approved a proposal of India Ports Global Limited (IPGL) to take over the operation of Sittwe port located on the Kaladan river.
  - With the approval of the Ministry of External Affairs, the port has now become an India-operated unit.
  - IPGL is a 100 percent owned company of the Union Ministry of Ports, Shipping and Waterways.
  - The development of this port is part of the Kaladan Multimodal Transit Transport Project (KMTTP).
- This port has been developed for the construction and operation of the Kaladan River Multimodal Transit Transport Facility connecting Sittwe Port in Myanmar to Mizoram state in India.
  - A framework agreement was signed between India and Myanmar in this regard.
  - Sittwe started receiving cargo from India in May 2023. The first consignment of cargo left from Shyama Prasad Mukherjee Port in Kolkata for this port in the sensitive Rhine province of Myanmar.
  - This port provides a significant connectivity advantage of shipping cargo from Visakhapatnam and Kolkata to the northeastern states without going through Bangladesh.
  - Sittwe Port has been built in Sittwe, the capital of Rhine state of Myanmar, with the help of India.

### Kaladan Multimodal Project

- Kaladan Multimodal Project is a joint project between India and Myanmar.
- India and Myanmar signed the Kaladan Multimodal Project Agreement in 2008.
- The Kaladan Multimodal Project connects Kolkata Port to Sittwe Port in Myanmar by sea.
- It connects Sittwe to Paletwa via the Kaladan River and Paletwa to the Indian border (Lawngtlai, Mizoram) by road.
- It is named as a multimodal project because it uses comprehensive infrastructure such as roads, bridges and floating barrages.

### Kaladan Multi Modal Transit Transport Project



### Benefits of the project

- The project will promote trade from the eastern ports of Myanmar to the northeastern parts of the country and boost the economic development of the northeastern states.
- The link to Sittwe Port will not only provide an alternate route for sending goods to the northeastern states, but will also significantly reduce the cost and distance of transporting goods from Kolkata to Mizoram and beyond.
- This will also reduce dependence on the Siliguri Corridor (Chicken Neck).

## BIMSTEC Charter approved by Nepal

- The lower house of the Parliament of Nepal, the Pratinidhi Sabha, has approved the charter of the 'Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
- The BIMSTEC Charter can be implemented only after approval by the Parliament of its member countries.
- Apart from Nepal, the other 6 member countries of BIMSTEC have already approved the BIMSTEC Charter in their parliaments.

### BIMSTEC

- It is a regional multilateral organization.
- Its members are located in the coastal and adjacent areas of the Bay of Bengal.
- Its 7 members are as follows-
- Bangladesh 2. Bhutan 3. India 4. Nepal
- 5. Sri Lanka 6. Myanmar 7. Thailand
- It acts as a bridge between South and Southeast Asia.
- Its objective is to accelerate shared development and cooperation between coastal and adjacent countries in South and Southeast Asia.
- It was **established in the year 1997** through the Bangkok Declaration.
- It was formed under the name BIST-EC (Bangladesh, India, Sri Lanka, Thailand – Economic Cooperation).
- It included 4 member countries Bangladesh, India, Sri Lanka and Thailand.
- After the inclusion of Myanmar in the year 1997, its name was changed to 'BIMST-EC'.
- After the inclusion of Nepal and Bhutan in it in 2004, the name of the organization was changed to '**Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation (BIMSTEC)**'.

## Iran-Israel tension: impact on the World and India

- Iran carried out air strikes on Israel with hundreds of drones and ballistic missiles on 14 April 2024.
- These attacks were carried out in response to Israel's air strike on the Iranian Consulate in Syria. Senior Iranian military commanders were killed in the attack in Syria.

- This attack was named '**Operation True Promise**' by Iran.
- However, with the help of Israel's missile defense system and its allied countries, this attack was foiled.

### Global impact

#### Economic impact

- **Increase in crude oil prices:** This could lead to crude oil, which is already at a six-month high, crossing \$100 per barrel if tensions escalate.
- **Supply chain disruption:** Tensions between the two countries will disrupt the supply chain as Iran may close the Suez Canal and pro-Iran Houthi rebels may create unrest in the region.
- **High inflation:** This tension could lead to increased inflation globally. Global economic growth could fall below 3.1%.
- **Impact on regional power balance:** If the conflict escalates, the United States and neighboring countries may also get involved in it.

#### Obstacle in nuclear disarmament:

- The Iran-Israel conflict could stall the Iran nuclear deal talks. An increase in tensions between the two countries could hamper peace processes in the region.

#### Fear of building of global coalition:

- The US and European countries could join in supporting Israel, while Russia and China could support Iran.

#### Regional instability:

- Both Israel and Iran are important countries in the region, and any tension between them could threaten regional stability.
- Other countries such as Syria, Lebanon and Saudi Arabia could be drawn into a wider conflict.

## Kachchatheevu Island

- The issue of Kachchatheevu Island has been in the news in recent times.
- Kachchatheevu Island is an island spread over 285 acres in the Palk Strait between India and Sri Lanka. Its length is 1.6 km and width is more than 300 meters.
- According to the information received from RTI (Right To Information) recently, an agreement was signed in 1974 by the then Prime Minister of India Indira Gandhi and the President of Sri Lanka Sirimavo Bandaranaike regarding Kachchatheevu.



- Under this, Kachchatheevu Island was formally handed over to Sri Lanka.
- It is located in the Palk Strait between Rameswaram in India and Neduntheevu in Sri Lanka.
- It connects the Bay of Bengal to the Arabian Sea and this island is important from a strategic point of view.
- **The transfer of Kachchatheevu to India is considered illegal as it was not approved by the Indian Parliament.**
- The Supreme Court of India ruled in the **Berubari Union case (1960)** that the transfer of Indian territory to another country must be approved by Parliament through a Constitutional Amendment Act.

### Background

- The island of Kachchatheevu was formed in the 14th century due to volcanic eruption.
- It was under King Ramanad of Madurai in the 17th century.
- During British rule, the island was under the Madras Presidency.
- India and Sri Lanka claimed the land for fishing in the year 1921 and the dispute remains unresolved.

### First Trilateral Summit of the US, Japan and the Philippines

- The first Trilateral Summit of the US, Japan and the Philippines was held on 11 April 2024 in Washington DC.
- The meeting discussed the United States' commitment to support its allies, Japan and the Philippines, amid growing territorial disputes with China.

### US-Philippines and Japan Defense Agreement

- The United States and Japan announced plans ranging from missile technology to moon landing and military cooperation along with infrastructure projects, strengthening their alliance to counter China and Russia.
- To ensure access to military resources in the Philippines, the USA has recommended \$1280 million for the development of infrastructure in the Philippines.
- A four-nation joint naval exercise was conducted on 7 April 2024 in the South China Sea. These countries included the US, Japan, Australia and the Philippines.
- This exercise was conducted to counterbalance China's aggression and give a message of unity.

### South China Sea dispute

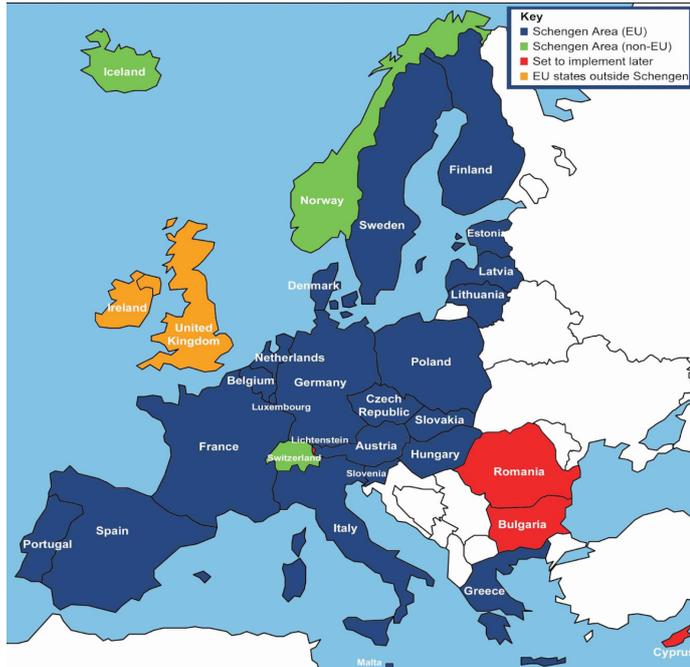
- The main reason for the South China Sea dispute is China's claim to various areas in this region. China considers 80% of the South China Sea as its own.
- The tension between China and the Philippines is centered on the Second Thomas Shoal located in the China Sea.
- There is a dispute between China and Japan regarding the Senkaku Islands.
- Both the Senkaku Islands and the Second Thomas Shoal are located within the South China Sea, which is an important area for trade and is potentially rich in oil and gas reserves.

### Importance of the South China Sea

- The South China Sea is considered one of the busiest waterways in the world. It serves as a gateway for trade and transportation.
- There is tension between various countries located in the South China Sea to establish their dominance in this region.
- The main bone of contention in this region is the Spratly and Paracel Islands located in the South China Sea, as both these islands are rich in crude oil and natural gas.
- This area is very important for the countries involved in the fishing trade, and its geographical location also increases its strategic importance.
- Note: Despite the 2016 decision of the Permanent Court of Arbitration, China claims almost the entire South China Sea.

## Romania and Bulgaria joined the Schengen Area

- According to the European Commission, Bulgaria and Romania partially joined the Schengen Area on March 31, 2024.
- The Schengen Area is Europe's free movement area.
- Upon joining this area, both countries will be allowed free movement by air and sea.
- Joining the Schengen area requires unanimous support of all member countries.



## Countries in the Schengen area

- Austria, Belgium, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, **Romania and Bulgaria (latest).**

## India appointed 'Defense Attache' in 16 countries

- The Government of India has appointed military representatives 'Defense Attache' in 16 countries.
- They have been appointed in the countries to which India exports weapons or where there are possibilities of export.
- The purpose of the appointment of Defense Attache by the Government of India is to strengthen its strategic relations with various countries and promote arms exports.
- India has appointed its Defense Attache (Military Representative) for the first time in African countries like Tanzania, Mozambique, Ethiopia, Ivory Coast and Djibouti.
- While India has reduced the number of Defense Attache from certain countries including Russia, UK.
- Note: India has made a record defense export of Rs 21,083 crore in the financial year (2023-24).
- According to the Stockholm International Peace Research Institute, Myanmar is the largest importer of Indian arms, accounting for 31 per cent of India's exports. Sri Lanka (19%) is second. Mauritius, Nepal, Armenia, Vietnam and Maldives are other major importers.

## Schengen Area

- Border controls have been abolished between the countries included in the Schengen area. It is the world's largest free movement area.
- Currently this area includes 29 members, out of which 25 are members of the European Union. Switzerland, Norway, Iceland and Liechtenstein are also part of Europe's Schengen area.
- Bulgaria and Romania joined the EU in 2007 and Croatia in 2013.
- Countries in the Schengen area have agreements on visa policy, asylum policy and cooperation between their police and judicial authorities.
- The Schengen area began in 1985 as an intergovernmental project between 5 EU countries – France, Germany, Belgium, Netherlands and Luxembourg.
- Passport is not required to travel between Schengen area countries. If one has a valid visa of a member country, one can also travel to other Schengen countries.

## Defence Attaché

- Defence Attachés are high-ranking military officers who work under ambassadors in Embassies. They focus on bilateral military and defence relations between the two countries.
- They represent defence and military matters to the government of the respective countries.
- Defence Attachés will not only help in increasing India's military coordination with these countries but will also help in counterbalancing the growing influence of China.

## United Kingdom Parliament passes Rwanda Deportation Bill

- The United Kingdom (UK) Parliament passed the Rwanda Deportation Bill on 23 April 2024.
- The purpose of this bill is to send refugees who come illegally to Britain to Rwanda.
- This bill was presented by the then Prime Minister Boris Johnson after an agreement with Rwanda in 2022.
- According to this agreement, Britain will give Rs 3,000 crore to Rwanda to keep illegal refugees.
- Under this, UK immigration officials have been given the right to send any asylum seeker who enters the UK 'illegally' after January 2022 to Rwanda. This will apply to any person coming to the UK without prior permission.
- Such individuals may also be barred from applying for asylum in the UK.

### Rwanda

- Rwanda is a landlocked country located south of the Equator in East-Central Africa.
- Its capital is Kigali.
- Rwanda is bordered by Uganda to the north, Tanzania to the east, Burundi to the south, and the Democratic Republic of the Congo (Kinshasa) and Lake Kivu to the west.

## SCO Defence Ministers Meeting in Kazakhstan

- The Shanghai Cooperation Organisation (SCO) Defence Ministers Meeting was held in Astana, Kazakhstan on 26 April 2024.
- Its joint communiqué agreed on the idea of 'One Earth, One Family, One Future'. It reflects 'Vasudhaiva Kutumbakam'.

### Shanghai Cooperation Organization (SCO)

- It is a permanent intergovernmental international organization.
- It was formed on 15 June 2001 in Shanghai (China).
- Before the formation of SCO, it was known as Shanghai Five. Its members were Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan.
- After the inclusion of Uzbekistan in the year 2001, the name of Shanghai Five was changed to Shanghai Cooperation Organization.

- In the year 2017, India and Pakistan became members of this organization.
- Iran was granted membership of SCO in the year 2023.
- Russian and Mandarin are the official languages of SCO.
- SCO is chaired by member countries on rotation basis for one year each.
- The Secretariat of Shanghai Cooperation Organization is in Beijing (China).
- The SCO Charter was signed in 2002 and entered into force on 19 September 2003.
- Currently, the SCO comprises 9 member countries.

1. China	2. India
3. Iran	4. Kazakhstan
5. Kyrgyzstan	6. Pakistan
7. Russia	8. Uzbekistan
9. Tajikistan	

## Clean Economy Investor Forum

- The Indo-Pacific Economic Framework for Prosperity (IPEF) will host its first Clean Economy Investor Forum in Singapore on 5-6 June 2024.
- It focuses on energy transition, sustainable aviation fuel, Hydrogen battery storage, green data centers, etc.
- The forum will bring together the region's largest investors, innovative startup entrepreneurs and cutting-edge project proponents and government agencies to promote investments.
- Its main objective is to mobilize investments in sustainable infrastructure, climate technology and renewable energy projects.

### Indo-Pacific Economic Framework for Prosperity (IPEF):

- It was launched in May 2022.
- It provides a platform for countries in the region to collaborate to advance resilient, sustainable and inclusive economic growth.
- 14 countries are members of the Indo-Pacific Economic Framework for Prosperity.
- Trade, supply chains, clean economy and fair economy are the four pillars of IPEF.

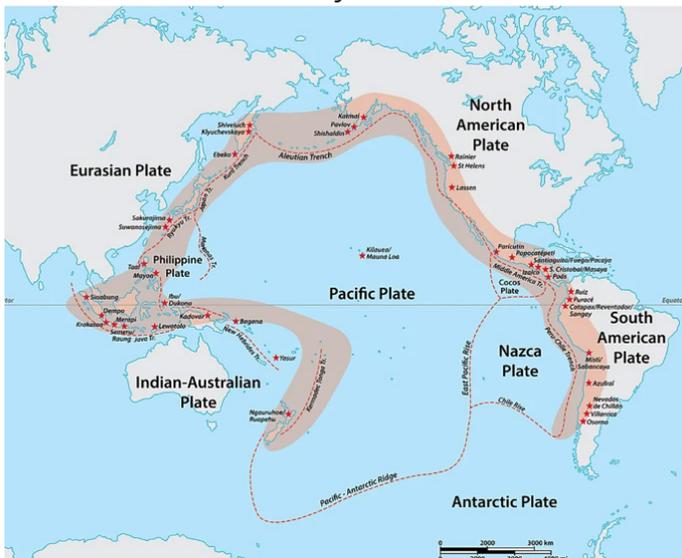
## State-of-the-art IT lab inaugurated in Uzbekistan

- To strengthen bilateral relations between India and Uzbekistan, a state-of-the-art IT lab was inaugurated by Indian Army Chief General Manoj Pandey.

- This lab has been developed by India. It was developed by the 'C' initiative of the Ministry of External Affairs of India.
- It also includes a hardware programming lab, an object-oriented programming lab, a web programming lab, a server room, a multimedia room and a virtual reality room.
- This will enrich the training resources available to the Uzbek Armed Forces and promote deeper understanding and cooperation between India and Uzbekistan.

## Earthquake in Taiwan

- Taiwan experienced the largest earthquake in the last 25 years on April 4, 2024.
- According to the US Geological Survey (USGS), the magnitude of the earthquake was 7.4 on the Richter Scale.
- The epicenter of the earthquake was located just 18 kilometers south-southwest of Hualien County.



## Ring of Fire

- Taiwan is prone to earthquakes as it lies along the 'Ring of Fire' where 90% of the world's earthquakes occur.
- The Ring of Fire mainly consists of hundreds of active volcanoes and is located along the Pacific Ocean.
- The belt is semicircular or horseshoe-shaped and stretches for about 40-250 kilometers.
- It is the meeting point of several tectonic plates, including the Eurasian, North American, Juan de Fuca, Cocos, Caribbean, Nazca, Antarctic, Indo-Australian, Philippine and other smaller plates.

- It passes through 15 other countries including the United States, Indonesia, Mexico, Japan, Canada, Guatemala, Russia, Chile, Peru and the Philippines.
- The Ring of Fire experiences more Earthquakes because of the constant sliding, collision, or movement of tectonic plates over or under each other.
- Earthquakes in Taiwan are caused by the interaction of two tectonic plates - the Philippine Sea Plate and the Eurasian Plate.
- The existence of more active volcanoes in the Ring of Fire is due to the movement of tectonic plates.

## 'Green Islam' Movement

- Indonesia, the country with the largest Muslim population in the world, has started a new campaign called 'Green Islam' to create awareness about the environment by linking the environment with religion.
- Indonesia is an island country and is currently facing environmental challenges.
- Recently, Grand Imam Nasruddin Umar at Istiqlal Mosque in the capital Jakarta encouraged people to work in the field of environmental conservation.
- Indonesia has the largest mosque in SouthEast Asia which has been converted into a Green Mosque by equipping it with solar panels.
- This campaign has had a positive impact in other countries as well.
- Supporters of the Green Islam movement say that change can be brought about by educating 20 crore Muslims.

## Iraq's Development Road Project (DRP)

- Recently on 22 April 2024, **Turkey, Iraq, Qatar and the United Arab Emirates signed a Memorandum of Understanding** for cooperation on DRP in the Iraqi capital Baghdad.
- The agreement on this project was reached during the visit of Turkish President Erdogan to Iraq.
- Erdogan signed the MoU with Iraqi Prime Minister Mohammad Shia al-Sudani in the presence of the transport ministers of all the countries.
- This project will connect the Gulf countries to Turkey located in Eurasia (between Asia and Europe), through Iraq through a 1,200 km highway and rail project.

- Turkey and the Gulf Arab countries aim to provide access to international markets through Turkey via the Al-Faw port in Iraq's Basrah province.
- This agreement has been made to increase economic development and strengthen regional and international cooperation between East and West.
- This project is being considered **in response to the India-Middle East-Europe Economic Corridor (IMEC)**.
- This project includes the establishment of logistics hubs, industrial complexes and integration of oil and gas pipelines.

### First country to conduct Data Based Census

- New Zealand will be the first country in the world to conduct data based census.
- Census in this country will be conducted in the year 2028.
- In data based census, there will not be door to door surveys, but data from various government institutions like tax department, social welfare department etc. will be used.

### India included in US watch list in intellectual property protection case

- The United States Trade Representative (USTR) has placed India on the 'Priority Watch List' in the matter of intellectual property (IP) protection.
- According to USTR's '2024 Special 301 Report', India remains one of the 'most challenging' major economies in the world in relation to the protection and enforcement of intellectual property.
- Other countries included in the watch list are Argentina, Chile, China, Indonesia, Russia and Venezuela.

### First International Rainbow Tourism Conference

- This conference was held on 20 April 2024 in Kathmandu (Nepal).
- The main objective of this conference is to establish Nepal as an LGBTQ (Lesbian, Gay, Bisexual, Transgender and Queer) -friendly tourist destination.
- This one-day international conference was organized by the non-governmental organization Mayako Pahichan Nepal in collaboration with Nepal Tourism Board.
- Executive Director of Mayako Pahichan Nepal, **Sunil Babu Pant** is the first Member of Parliament from the LGBT community in Nepal.
- The Supreme Court of Nepal passed a landmark judgement in 2007 to enact a law recognising third gender identity and abolished all discriminatory laws.
- Through an interim order, the Supreme Court of Nepal allowed same-sex marriages to be legally registered in June 2023.

### Zimbabwe launches new gold-backed currency called ZiG

- ZiG stands for 'Zimbabwe Gold'.
- The new ZiG banknotes will come in denominations between ₹1 and ₹200.
- This is the latest attempt to stabilise the economy in Zimbabwe that has been going through a crisis for the past 25 years.
- ZiG replaces the Zimbabwean Dollar, RTGS.
- Zimbabwean citizens have been given 21 days to exchange old, inflation-hit notes for the new currency.
- The new currency has been implemented with immediate effect and banks must convert existing Zimbabwean Dollar balances into ZiG.

# 5. SCIENCE AND TECHNOLOGY

## Country's first Tri-Service Common Defence Station

- Tri-Service Common Defence Station will be established in **Mumbai, Maharashtra**.
- Its objective is to establish better coordination between the three forces.
- Note: There is a command of the three forces in Andaman and Nicobar, which was created in 2001.
- Logistic support infrastructure will be developed here for the three forces.
- **The Indian Navy will lead the defense station** of the three forces in Mumbai, because its presence is the highest there.
- After Mumbai, joint defense stations will also be built in Suler (Tamil Nadu) and Guwahati (Assam).
- The Air Force will command the Tri-Service Common Defence Station in Suler (Tamil Nadu), while in Guwahati it will be led by the Army.
- Logistics, infrastructure and administration will be brought together at this station.
- This will enable the three forces to monitor the western coast and western border of the country together with better coordination.
- Under this, the Army, Navy and Air Force facilities of logistics, infrastructure, repair and maintenance, stores and supplies etc. will be consolidated into a single defense station.
- Note: Additional initiatives like inter-service postings were implemented in the Indian Armed Forces in the year 2023 to promote cooperation between the services.

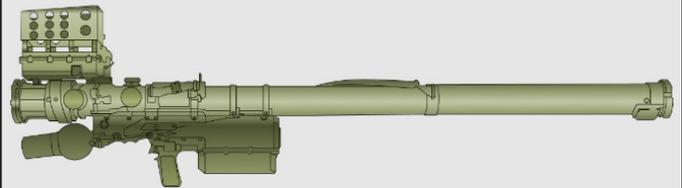
## Igla-S Man Portable Air Defense System (MANPADS)

- The Indian Army has received the first batch of 100 missiles along with 24 **Russian-made Igla-S** Man Portable Air Defense Systems (MANPADS).
- It is a very short-range surface-to-air air defense missile system.
- It can be fired by an individual or crew to shoot down an enemy aircraft.
- This missile system aims to enhance the very short-range air defense capabilities (VSHORAD) of the Indian Army.

- Its range is 5 to 6 kilometers.
- It consists of 9M342 missiles, 9P522 launching mechanism, 9V866-2 mobile test station and 9F719-2 test set.
- It can identify aerial targets such as cruise missiles and drones.
- It moves towards the target at a speed of 2,266 kilometers per hour.
- **Note:** India signed a contract with Russia in November 2023 for the procurement of 120 launchers and 400 missiles.
- The remaining systems will be made in India through Transfer of Technology from Russia.
- Igla-S systems are being purchased for the newly authorized air defense formations in the high mountain areas along the northern border.

## Igla-S portable anti-aircraft missile system

Designed to engage all types of aircraft and helicopters, as well as small airborne targets such as cruise missiles, at any time of day in visible conditions on collision and pursuit courses against background and artificial thermal interference.



**500 to 6,000 m**  
Firing range

**10 to 3,500 m**  
target altitude

**no more than 12 s.**  
mobile-to-combat position  
transition time

**no more than 5 s.**  
ready to start time  
from activation

Target speed:

**up to 400 m/s**  
on collision courses

**up to 320 m/s**  
on catch-up courses

Homing head type:

● tracking ● passive ● thermal ● bispectral

## Steel Cutting of First Fleet Support Ship for Indian Navy

- The 'Steel Cutting' ceremony of the first of the 5 Fleet Support Ships (FSS) for the Indian Navy was held on 10 April, 2024 at **Hindustan Shipyard Limited (HSL), Visakhapatnam**.

- The contract with HSL for the acquisition of 5 Fleet Support Ships was signed in August 2023 and the ships will be handed over to the Indian Navy in mid-2027.
- Fleet Support Ships refer to such ships that will assist other warships during war.
- Steel Cutting means starting to shape the steel for the construction of its structure.
- These five ships will be completely built indigenously. Their displacement capacity will be around 40-45 thousand tons.
- These fleet support ships will enhance the capabilities of the Indian Navy through replenishment of fleet ships at sea.
- With their help, the Navy's warships will be supplied with fuel, water, logistics, ammunition during war.
- These ships can be used for evacuation of personnel and civilians in emergency situations and quick delivery of relief material to the site during natural disasters.
- These ships will be equipped with anti-ship, anti-submarine weapons and CIWS systems.
- This will enable long-term operations without returning to port, thus increasing the strategic reach and mobility of the fleet.

## India supplies BrahMos cruise missile to the Philippines

- India supplied the first consignment of BrahMos missiles to the Philippines on 19 April.
- For this supply, the Indian Air Force (IAF) sent its C-17 Globemaster Cargo Aircraft to the Philippines.
- In January 2022, India and the Philippines signed a US\$375 million deal for three batteries of the shore-based, anti-ship version of the BrahMos.
- The Philippines has become the first exporter of this missile.
- There is a situation of tension between the Philippines and China in the South China Sea.
- There is tension between China and the Philippines over Thomas Shoal and Scarborough Shoal located in the South China Sea.
- The Philippines has acquired BrahMos missiles from India to counter China's aggression and enhance its military capabilities.



## BrahMos Missile

- BrahMos is a joint venture between Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyeniya and the missile derives its name from the Brahmaputra and Moskva rivers.
- The missile is capable of being launched from land, sea, sub-sea and air against surface and sea-based targets.
- This supersonic cruise missile has been inducted into all three wings of the Indian Armed Forces.
- The missile's range was originally set at 290 km as per the Missile Technology Control Regime (MTCR) obligations.
- After India's entry into the club in June 2016, the missile's range has been extended to 450 km and work is underway to extend it to 600 km and beyond.
- A missile that can travel at speeds between Mach 1 and Mach 5 is considered supersonic.

## India successfully tested Nirbhay cruise missile

- India successfully tested the Nirbhay cruise missile on 19 April 2024.
- The Defense Research and Development Organization (DRDO) conducted this test at Chandipur Integrated Test Range off the Odisha coast.
- During the test, this missile achieved a speed of 864 km to 1111 km per hour.

## Nirbhay missile

- Nirbhay missile is also known as Indigenous Technology Cruise Missile (ITCM).
- It is a long-range subsonic cruise missile.
- It is India's first indigenously built cruise missile.
- This missile has been indigenously developed by the Defense Research and Development Organization (DRDO).
- It is capable of moving and cruising at 0.7 Mach (subsonic) speed at an altitude of less than 100 meters.
- It is a two-stage missile, solid fuel is used in the first round and liquid fuel in the second round.
- This missile can carry conventional weapons of 200-300 kg.
- It is capable of carrying nuclear weapons. Its maximum range is 1500 km.
- It can be fired from both sea and land. This missile is capable of dodging enemy radars by flying at low altitudes above the sea.

facility for sonar systems developed for use by the Indian Navy on various platforms including ships, submarines and helicopters.

- It will consist of two different combinations-
  - One platform that floats on the surface of the water.
  - The second submersible platform that can be lowered to any depth up to 100 meters using a winch system.
- SPACE will primarily be used for evaluating the entire sonar system.
- It will be suitable for survey, sampling and data collection of air, surface, mid-water and reservoir floor parameters using modern scientific instruments.

## Successful test of medium-range ballistic missile Crystal Maze 2

- India successfully tested a new model of the Crystal Maze 2 missile on 24 April 2024.
- The Air Force used Su-30 MKI fighter aircraft for this missile test.
- This test was conducted to demonstrate the effectiveness of newly developed technologies.

## Memorandum of Understanding (MoU) signed between Armed Forces Medical Services (AFMS) and IIT Kanpur

- Armed Forces Medical Services (AFMS) signed a Memorandum of Understanding (MoU) for **collaborative research and training** with Indian Institute of Technology (IIT) Kanpur on 18 April 2024.
- Under this MoU, AFMS and IIT Kanpur will **collaborate in research and development of technologies to address health issues faced by soldiers in remote areas.**
- The Armed Forces Medical College houses the Armed Forces Centre for Computational Medicine, the first of its kind in medical colleges in the country.
- It will also provide technical expertise to develop A.I. diagnostic models.

## Crystal Maze 2 Missile

- It is a medium-range ballistic missile developed by Israel.
- It has the ability to attack targets located at a distance of more than 250 kilometers.
- It is an advanced air-launched (air-to-surface) missile.
- It is also known as ROCKS.
- It is designed for precision attacks on high-value targets.

## State-of-the-art SPACE centre will test sonar systems in Kerala

- Its full name is Submersible Platform for Acoustic Characterisation and Evaluation.
- DRDO Chairman and Department of Defence (R&D) Secretary Sameer V. Kamath inaugurated it on April 17, 2024 at the Underwater Acoustic Research Facility, Kulamavu in **Idukki, Kerala.**
- It is a state-of-the-art test and evaluation

## The lightest bullet proof jacket developed in India by DRDO

- This jacket provides protection against the highest level of BIS ammunition, level 6.
- Recently this bullet proof jacket was successfully tested at the Terminal Ballistic Research Laboratory (TBRL), Chandigarh.
- The front
- The HardArmor Panel (HAP) of this jacket is capable of stopping multiple hits.
- It is made of a monolithic ceramic plate with polymer backing.

## First International Workshop on 'Emerging Technologies and Challenges for Exoskeletons'

- It was organized by the Defense Bioengineering and Electromedical Laboratory of Defense Research and

Development Organization (DRDO) in Bengaluru from 16 to 17 April, 2024.

- It emphasized the importance of transformative exoskeleton technology and its wide applications in military and civilian environments.
- It highlighted the importance of exoskeleton technologies in Rehabilitation, Occupational Therapy and Enrichment.
- Exoskeleton technology being a dual American technology, has tremendous commercial potential.

**The Indian Army started inducting control and reporting systems under 'Project Akashteer'.**

- The Indian Army has taken the initiative to **induct control and reporting systems** under 'Project Akashteer' to enhance its air defense capabilities.
- It will ensure the safety of friendly aircraft and keep an eye on enemy aircraft in disputed airspace.
- This project will significantly enhance the operational efficiency and integration of the army's air defense system.

**Air Force will get 97 LCA Mark 1-A fighter aircraft**

- The Ministry of Defense has issued tenders worth Rs 65,000 crore to the public sector company Hindustan Aeronautics Limited (HAL) for self-reliance in indigenization in the Air Force.
- Under this, 97 LCA Mark 1-I fighter jets will be purchased from HAL.
- This is the largest order of indigenous fighter aircraft by the Central Government.
- LCA Mark 1-I fighter jets will replace fighter jets like MiG-21A, MiG-23 and MiG-27 in the Air Force.
- The Indian Air Force has already placed an order for 83 LCA Mark 1-A fighter jets with HAL.
- The LCA Mark 1-A is a modern version of the Tejas aircraft.

**Project Akash Teer**

- 'Project Akash Teer' is an important initiative aimed at enhancing the air defense capabilities of the Indian Army.
- It was developed by Bharat Electronics Limited (BEL) as an 'Atmanirbhar Bharat' initiative. The project is designed to automate air defense control and reporting processes by digitizing them.
- The system integrates radar and communication systems at all levels into a single network, providing robust strategic information and control.
- It is capable of rapidly attacking targeted targets and ensuring the safety of its aircraft in the airspace.

**Bharat Electronics Limited (BEL)**

- It is an aerospace and defense electronics company owned by the Government of India.
- It mainly manufactures advanced electronic products for military and aerospace applications.
- It is one of the 9 public sector undertakings under the Ministry of Defense of India. It has been given Navratna status by the Government of India.
- It was founded in 1954 in Bangalore, Karnataka, India.



**Successful test of Agni Prime missile capable of carrying out nuclear attack**

- India successfully tested the Agni Prime missile on 4 April 2024.
- This test was conducted by the Strategic Forces Command of the Indian Army in collaboration with DRDO from Dr. APJ Abdul Kalam Island in Odisha.
- Earlier on 7 June 2023, DRDO had also successfully tested the Agni Prime missile.

## Agni Prime

- Agni Prime missile has been developed indigenously under the Integrated Guided Missile Development Program.
- Under this program, missiles like Prithvi, Agni, Trishul, Nag and Akash have been developed.
- Agni Prime ballistic missile is a medium-range missile, with a range of about 1200-2000 kilometers.
- This missile is capable of carrying nuclear weapons, 1500 to 3000 kg of warheads can be carried on this missile.
- Solid fuel is used in this missile.
- This is the newest and sixth missile of the Agni missile series.

## Successful test of Akash missile system

- India successfully tested the Akash missile system on 31 March 2024.
- This test was conducted by the Western Command of the Indian Army. The Akash missile system can destroy enemy aircraft or missiles in the air (capable of surface-to-air strikes).

## Akash Missile System

- A single unit of the Akash missile system contains four missiles, which can destroy different targets.
- The Akash missile system has been indigenously designed and developed by the Defense Research and Development Organization (DRDO).
- It is a medium-range surface-to-air missile system.
- Its range is 40 to 80 km.
- It has been developed under the Integrated Guided Missile Development Programme (IGMDP), which also includes the development of the Nag, Agni and Trishul missiles and the Prithvi ballistic missile.
- Two missile variants have been built for the Indian Air Force and the Indian Army.
- The surface-to-air system of the missile can target multiple aerial targets while operating in a fully autonomous mode.
- The system consists of a launcher, a missile, a control centre, a multifunctional fire control radar, a system arming and explosion mechanism, a digital autopilot, C4I (Command, Control Communication and Intelligence) Centre and supporting ground equipment.

## Dornier 228 aircraft supplied to Guyana by India

- Recently, Guyana received two Dornier 228 aircraft from India-based aerospace and defence company Hindustan Aeronautics Limited (HAL) to significantly enhance its defence capabilities.
- Under this, India has signed the **Line of Credit (LOC) agreement with a Caribbean country for the first time.**
- Both Dornier-228 aircraft have been given to Guyana as part of loan assistance.
- For this deal, the Guyana Defense Force had signed a Line of Credit (LOC) with India on a loan of \$ 23.27 million.
- It will be used for maritime patrol and to enhance the movement and security capabilities of the army.

## Defense exports for the first time in FY 2023-24 reached a record Rs 21,083 crore

- India's defense exports in FY 2023-24 have reached a record Rs 21,083 crore (about US \$ 2.63 billion), showing a growth of 32.5% percent compared to the previous financial year.
- Private sector contributed 60% of this and Defence Public Sector Undertakings contributed 40%.
- Defence exports have grown 31 times in the last 10 years as compared to FY 2013-14.
- From 1,414 export authorisations in FY 2022-23, the number is expected to increase to 1,507 in FY 2023-24.
- The remarkable growth is due to the policy reforms and Ease of Doing Business initiatives brought in by the Government along with 'end-to-end' digital solutions provided to Indian industries to boost defence exports.

## Successful test of indigenous Man Portable Anti-Tank Guided Missile (MPATGM) weapon system

- The Defense Research and Development Organization (DRDO) has indigenously designed and developed the Man Portable Anti-Tank Guided Missile (MPATGM) weapon system.
- The technology has been evaluated several times in various flight configurations with the aim of proving its high superiority.
- It was tested by DRDO and the Indian Army.
- Under this, warhead flight tests were successfully conducted on April 13, 2024 at Pokhran Field Firing Range in Rajasthan.

- Its 'Dual Mode Seeker (capable of day/night operation)' functionality is a key feature of this missile for tank warfare.
- It can be easily transported anywhere. It is capable of targeting enemy tanks from anywhere.

## Manta Ray Underwater Drone

- It is an **unmanned underwater vehicle**, which can stay inside the sea for a long time.
- It has been designed by America's Defense Advanced Research Projects Agency (DARPA), which is based on the giant sea fish Manta Ray.
- It has been named Manta Ray after this fish.
- This underwater vehicle is completely autonomous.
- It has been placed under the category 'Unmanned Undersea Vehicle' (UUV).
- It can be used to carry out new research and espionage inside the sea.
- With the help of this underwater vehicle, rescue operations can also be done in future.
- It can also be used as a weapon.
- It can dive deep inside the sea for a long time without making any sound.
- Manta Ray is an underwater vehicle modular, it can be folded and taken anywhere.
- This drone can be sent on different missions by installing various types of payloads.
- Note: In 2017, scientists from Singapore created a robot that looks like a manta ray fish, which can swim in water with the help of flexible wings.

## ISRO develops carbon-carbon (C-C) nozzle for rocket engines

- ISRO has achieved a breakthrough in rocket engine technology with the development of lightweight carbon-carbon (C-C) nozzles for rocket engines.
- This innovation by Vikram Sarabhai Space Center (VSSC) is capable of increasing the important parameters of the rocket engine.
- These include thrust level, specific impulse and thrust-to-weight ratio, which will increase the payload capacity of launch vehicles.
- By using processes such as carbonization of green composites and High Temperature Treatment, it has created a nozzle with low

density, high specific power and excellent stiffness.

- It is capable of retaining mechanical properties even at high temperatures.
- A key feature of this nozzle is its **special anti-oxidation coating of Silicon Carbide**, which increases its operating limits in oxidizing atmospheres.
- This allows the operational temperature range to be extended in hostile environments.
- This development is significant for the Polar Satellite Launch Vehicle (PSLV), the workhorse launcher of the Indian Space Research Organisation (ISRO). PS4, the fourth stage of PSLV, currently uses two engines with nozzles made of columbium alloy.
- This nozzle is estimated to increase the payload capability of PSLV by 15 kg, a significant increase for space missions.

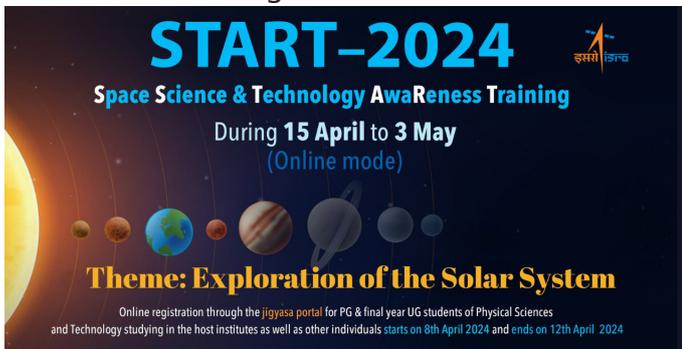
## TSAT-1A satellite

- Tata Advanced Systems Limited (TASL) has successfully put its sub-meter optical satellite into space.
- TSAT-1A was launched with SpaceX's Bandwagon-1 mission.
- TSAT-1A was launched by SpaceX's Falcon 9 rocket from Kennedy Space Center in Florida, USA on 7 April 2024.
- This satellite was developed in collaboration between TASL and Satellogic.
- It collaborates with Satellogic's expertise and TASL's capability to perform complex system integration in order to develop and integrate an advanced Earth observation satellite in India.
- TSAT-1A was assembled at Tata Advanced's Assembly, Integration and Testing (AIT) plant in Karnataka.
- It will provide high-resolution optical satellite imagery. It is the first military grade geospatial satellite built by the Indian private sector.

## START Program

- The START program has been started by ISRO.
- Its full name is "Space Science and Technology AwaReness Training".
- The Indian Space Research Organization (ISRO) has designated the Gujarat Council of Science and Technology (GUJCOST) as the nodal center for the START program.

- It is an online training program for undergraduate and postgraduate students of science and technology.
- The Space Science and Technology AwaReness Training (START) 2024 program will be conducted from April to May 2024.
- This program covers various areas of space science research.
- It aims to attract youth to the field of space science and technology.
- It is only for students studying in educational institutions, universities and colleges of India.
- Under the START program, GUJCOST will host live classes, serving as a central hub for knowledge dissemination.



## First war exercise in space

- The United States Space Military Branch will conduct war exercises in the Earth's orbit for the first time.
- This war exercise has been named '**Victus Haze**'.
- America is conducting it to protect its satellites and other resources outside the Earth.
- The US Space System Command (SSC) has recently signed contracts in this regard with 2 private space companies
- The US Space Force has signed contracts worth a total of \$620 million with Rocket Lab and True Anomaly for its Victus Haze mission.
- Note: Russia and China are also constantly increasing military capabilities in Space.
- Rocket Lab is contracted to build and launch a spacecraft using its Electron rocket, while True Anomaly will provide the command and control center.

## Advanced Composite Solar Sail System (ACS3)

- NASA's Advanced Composite Solar Sail System (ACS3) spacecraft was launched on April 23, 2024, from Rocket Lab's Electron rocket in Mahia, New Zealand.

- ACS3 is a microwave oven-sized satellite.
- The next generation of **solar sail technology** is known as the Advanced Composite Solar Sail System (ACS3).
- This technology could **advance future space travel and expand our understanding of our Sun and solar system.**
- Solar sails use the pressure of sunlight for propulsion, bending toward or away from the Sun so that photons collide with the reflective sail and push the spacecraft.
- This eliminates Heavy Propulsion Systems and could enable longer duration and lower cost missions.
- It has been placed in low Earth orbit to test next-generation solar sail technology.
- Data from ACS3 will guide the design of large-scale composite solar sail systems in the future.
- This data could be used to launch satellites for space weather early warning, near-Earth Asteroid Reconnaissance missions, or for communications relay for manned exploration missions.
- Under this, NASA is developing new deployable structures and material technologies for Solar Sail Propulsion Systems for future low-cost deep space missions.
- This eliminates the need for traditional rocket propellant.
- The primary objective of the ACS3 technology demonstration is to successfully deploy a composite boom solar sail in low-Earth orbit.

## China sent 3 astronauts to Tiangong Space Station by Shenzhou-18 spacecraft

- China's Shenzhou-18 mission was launched on 25 April 2024.
- Under this, a team of 3 astronauts from China was sent to the Tiangong Space Station in low Earth orbit.
- Under this mission, China is working towards sending astronauts to the Moon by 2030.
- The Shenzhou-18 spacecraft is also known as the '**Divine Vessel**'.
- The spacecraft mission commander is **Ye Guangfu** (who previously worked on the 2021 Shenzhou-13 mission) and the other two members are **Li Kang and Li Guangsu**.
- These three passengers will stay in the space station for 6 months.

- Their main tasks include conducting scientific experiments, spacewalks and regular maintenance and management of the space station.

### Gaia BH3: Discovery of the largest stellar black hole

- Astronomers have detected Gaia BH3, the largest stellar black hole in our Milky Way galaxy, with a mass 33 times that of the Sun.
- It is also the second closest black hole to Earth, which is only 2,000 light years away from Earth.
- Scientists spotted BH3 in the latest trove of data collected by the European Space Agency's Gaia mission.
- The Gaia mission space telescope was launched in 2013 with the aim of compiling a 3D map of a billion stars.
- When a star with a mass more than eight times the mass of the Sun runs out of fuel, it explodes as a supernova and its core collapses to form a stellar black hole.
- Studies have shown that there are about 50 probable or confirmed stellar-mass black holes in the galaxy, but according to NASA, there could be up to 100 million in our galaxy, the Milky Way, alone.
- After Gaia BH3, Cygnus X-1 is the second-largest black hole known, with a mass 21 times that of the Sun.
- Gaia BH3 has become the largest black hole of stellar origin in the galaxy.

### Black hole

- Black hole is the state of a star after it dies. Stars shine with the energy produced by the fusion of hydrogen into helium at their center.
- The star continues to shine permanently for a long time due to the balance of two forces. While the gravity of its own matter tries to make it smaller by compressing it, the radiation coming out of the center wants to expand it and make it bigger.
- Therefore, when the fuel in the central part of the star gets exhausted, it starts shrinking. Stars with mass of the order of the mass of the Sun become white dwarf stars after death.
- When large stars with mass many times that of the Sun die, a massive explosion takes place in them which is called a supernova explosion. The matter of the star spreads in all four directions in the universe and a

dense small body remains in the center. It is called a neutron star.

- In stars with even greater mass, the core portion which remains after the supernova explosion continues to shrink due to gravity. It becomes such a dense body with such high gravity that even a ray of light cannot escape from it. In such a situation, it cannot survive. It assumes a zero shape. This state of the star is called a black hole.
- Astronomers generally divide black holes into three categories according to their mass: stellar-mass, supermassive, and intermediate-mass.
- When a star with a mass more than eight times that of the Sun runs out of fuel, its core collapses, and explodes as a supernova.
- The mass of a supermassive black hole is hundreds of thousands to billions of times greater than the mass of the Sun. The mass of Sagittarius (Sgr A) is 4.2 million times greater than that of the Sun.
- Supermassive black holes like Sgr A are not formed by the death of large stars, but by the merger of progressively larger and larger black holes.
- Almost every large galaxy, including our own, has a supermassive black hole at its center.

### World's most powerful LASER

- The world's most powerful LASER has been developed **in Romania**.
- It can bring revolutionary advances in every field ranging from the Health sector to Space.
- This laser will be capable of producing a beam billions of times brighter than the Sun.
- It has been developed by a research center in Bucharest, the capital of Romania.
- It is **part of the European Union Infrastructure Extreme Light Infrastructure (ELI) project**.
- This laser technology is known as **Chirped Pulse Amplification (CPA) technology**.
- It is based on the inventions of Nobel Prize winners Gérard Mourou of France and Donna Strickland of Canada.
- Gérard Mourou of France and Donna Strickland of Canada won the 2018 Nobel Physics Prize for using the power of lasers to create cutting-edge precision instruments.

## Potential applications of powerful lasers

- Reducing the radioactivity period of nuclear waste.
- Removing debris accumulating in space.
- In medical treatments such as targeted cancer therapies and advanced surgical techniques.
- Useful in cancer therapy.
- Helpful in promoting progress in the field of nuclear fusion, renewable energy and batteries.

## Russia successfully launched Angara-A5 space rocket

- Russia successfully tested the Angara-A5 space rocket on 11 April 2024.
- This test was conducted from Vostochny Cosmodrome. However, this is Russia's third test which was successful.
- The Angara rocket is a three-stage rocket which is 54.5 meters (178.81 feet) long.
- It weighs about 773 tons, can carry about 24.5 tons of weight into space.
- Russia launched the Angara project for a Russian-built launch vehicle in 1991, a few years after the dissolution of the Soviet Union.

## Rampage missile included in the fleet of Indian Air Force and Navy

- Recently, India has included Israeli Rampage missiles, which dodge the air defense system, in the fleet of the Indian Air Force and Navy.
- The Air Force has equipped Su-30 MKI and MiG-29 Jaguar fighter jets with Rampage missiles.
- The Navy has also inducted the missiles for MiG-29 naval fighter jets

## Rampage Missile

- The supersonic Rampage is capable of hitting targets up to 250 kilometres.
- The air-to-ground Rampage missiles are 47 metres long and weigh 570 kg.
- Known as the High-Speed Low Drag-Mark 2 missile, it was reportedly used extensively by the Israeli Air Force during recent attacks on Iranian targets.

## 12P/Pons-Brooks comet reached its closest point to the Sun

- 12P/Pons-Brooks is a comet, which is also called 'Mother of Dragons' or 'Devil Comet' or 'Millennium Falcon'.

- This comet reached its closest point to the Sun (perihelion) on April 21, 2024. At that time it was 74.4 million miles away from the Sun and its brightness was the highest.
- This comet appeared in a horned shape during the total solar eclipse on April 8, 2024.
- This comet will be closest to the Earth (only 232 million kilometers away) in June 2024. But at that time it will be visible only in the Southern Hemisphere.
- This cosmic hailstone orbits the Sun only once every 71 years.
- This special body is a cryovolcano, which when erupts, accumulates a large amount of gas and ice and burns like a frozen coke can.

## NASA will determine Coordinated Lunar Time (CLT) for the Moon

- The US space agency NASA will establish a standard time zone for the Moon and other celestial bodies.
- Its goal is to establish international norms in the growing lunar race between nations and private enterprises.
- Due to low Gravitational Force on the Moon, time runs 58.7 microseconds faster on Moon than on Earth. Therefore, the time on Earth and the Moon is not the same.
- The US space agency NASA will prepare Coordinated Lunar Time (LTC) i.e. 'Standard Time' for the Moon by 2026.
- LTC will be a standard time that will set the international standard time for satellites and vehicles going to the moon.
- Coordinated Universal Time (UTC) can be used as the basis for setting LTC, which has been set by the United Nations as the standard time for the whole world.

## The largest 3D map of the universe

- The Dark Energy Spectroscopic Instrument (DESI) has created the largest 3D map of the universe with precise measurements.
- Its purpose is to study the effects of dark energy over the last 11 billion years.
- For the first time, scientists have measured the expansion history of the young universe with an error of less than 1%.
- This will enable us to get extensive information about the evolution of the universe.
- This new model of the universe has been named **Lambda CDM**.

- Both matter and dark energy shape the expansion of the universe in opposite ways.
- Matter and dark matter slow down the expansion, while dark energy speeds it up.

### Dark Energy Spectroscopic Instrument (DESI)

- DESI is a unique instrument with 5,000 robotic 'eyes', each of which can separately capture and process the light coming from the galaxy.
- It is mounted on the Nicholas U. Mayall 4-meter Telescope at Kitt Peak National Observatory in Arizona, USA.
- DESI has the capability to observe 5,000 galaxies at the same time.
- It will study the evolution of our universe, its future end, and one of the biggest mysteries of physics – 'dark energy'.

### Nigeria becomes first country in the world to develop a meningitis vaccine

- Nigeria has become the first country in the world to introduce a highly effective vaccine for meningitis.
- The vaccine called Men5CV is recommended by the World Health Organization (WHO).
- It provides protection against 5 strains of meningococcus bacteria in a single shot. It protects against meningococcus bacteria strains A, C, W, Y and X.
- All of these can cause meningitis and blood poisoning.

### Meningitis

- Meningitis is a serious inflammation of the membranes surrounding the brain and spinal cord.
- Meningitis can be caused by viruses, bacteria, fungi or parasites.
- It can cause serious illnesses including brain damage, hearing loss and learning disabilities.
- Meningitis can affect people of any age.
- Pneumococcal conjugate vaccine (PCV) has been included in India's Universal Immunization Program (UIP).
- PCV protects children from severe forms of pneumococcal disease such as pneumonia and meningitis.

### Gagan Shakti: Indian Air Force's largest military exercise

- Gagan Shakti, the largest military exercise of the Indian Air Force, was held from 1-10 April at **Pokhran Field Firing Range in Jaisalmer** district of Rajasthan.
- It tested the preparation of the Indian Air Force for a two-front war with China and Pakistan.
- About 10 thousand air warriors of the Indian Air Force participated in this military exercise. Many fighter aircraft and helicopters including Tejas, Rafale, Su-30, Jaguar, Globemaster, Chinook, Apache, Prachand participated in it.
- Gagan Shakti war exercise is usually organized by the Indian Air Force every five years. Earlier, 'Gagan Shakti' exercise was organized in the year 2018.

### IMT TRILAT 24

- This is a trilateral naval exercise between India, Mozambique and Tanzania.
- This was the second edition of IMT TRILAT which was held in Nacala, Mozambique.
- The aim of this exercise is to enhance maritime cooperation and interoperability between the navies of India, Mozambique and Tanzania.
- IMT TRILAT 24 was conducted in two phases. The first phase was the Harbor Phase which was held in Zanzibar from 21-24 March. The second phase was the Sea Phase which was held from 24-28 March.
- Mozambique is a country in South-East Africa. Its capital is Maputo.
- Tanzania is located in East Africa. Its capital is Dodoma.

### Exercise DUSTLIK 2024

- It is an India-Uzbekistan joint military exercise. This is the 5th edition of DUSTLIK.
- It was held from 15 to 28 April 2024 in Termez, Republic of Uzbekistan.

### 'Exercise Poorvi Lehar'

- The Indian Navy conducted 'Exercise Poorvi Lehar' (XPOL) on 20 April 2024 along the East Coast under the operational direction of the Flag Officer Commanding-in-Chief, Eastern Naval Command.

- The aim of this exercise was to validate the procedures towards assessment of the preparedness of the Indian Navy in order to deal with the maritime security challenges of the region.
- XPOL was conducted in multiple phases, which included combat training in a specific scenario during the Tactical Phase and successful conduct of various firings to validate Indian Navy's capability to deliver ordnance to target during weapon phase.

**Sagar Kavach 2024**

- The Indian Navy conducted a maritime security exercise named 'Sagar Kavach' on 1-2 April 2024 in strategically important Lakshadweep.
- The two-day exercise involved Indian Navy, Indian Coast Guard, Marine Police, Fisheries and Customs and other security agencies.
- The exercise, which concluded on 2 April, validated the effectiveness of coastal security mechanisms while dealing with asymmetric threats emanating from the sea.

# 6. SPORTS

## India's D. Gukesh won the FIDE Candidates Chess Tournament

- India's 17-year-old Dommaraju Gukesh won the FIDE Candidates Tournament in Toronto, Canada on 22 April 2024.
- Gukesh became the youngest player to win this title.
- He is also the second Indian to win the Candidates Tournament after five-time world champion Viswanathan Anand.
- Gukesh will face China's Ding Liren for the Chess World Championship title.

### Candidates Tournament

- This tournament is played before the World Championship.
- The winner of this tournament plays a match with the previous winner of the World Championship match.
- This tournament selects the player for the World Championship match.
- It is a double round-robin tournament with 8 players.
- The top three players of the FIDE World Cup qualify directly for the Candidates Tournament.

## Archery World Cup 2024

- Its Stage 1 was held in Shanghai (China) from 23-28 April 2024.
- India won a total of 8 medals including 5 gold, 2 silver and 1 bronze.
- The Indian men's **recurve team of Tarundeep Rai, Praveen Jadhav and Dheeraj Bommadevara won the gold medal.**
- This was **India's first World Cup gold medal in men's recurve team archery in 14 years.**
- Deepika Kumari won silver medal in the women's individual recurve event.
- This was Deepika's second consecutive medal. Earlier, she won the individual gold medal at the 2024 Asia Cup in February.
- Ankita Bhakat and Dheeraj won the bronze medal in mixed team recurve.
- **Dheeraj Bommadevara** secured India's only archery quota for Paris 2024.

## Medallists for India

CATEGORY	ARCHER	MEDAL
Compound Women	Jyothi Surekha Vennam	Gold
Compound Men Team	Team India	Gold
Compound Mixed Team	Team India	Gold
Compound Women Team	Team India	Gold
Recurve Men Team	Team India	Gold
Compound Men	Priyansh	Silver
Recurve Women	Deepika Kumari	Silver
Recurve Mixed Team	Team India	Bronze

### Archery World Cup

- It is held in 4 different countries in a calendar year in 4 stages.
- The World Cup Final is held in the last stage after the completion of 4 stages.
- The 2024 World Cup will start from April 23, 2024 and run till October 20. Stage 1 of the World Cup was held in Shanghai (China).
- The second and third stages were held in Yecheon (South Korea) and Antalya (Turkey) respectively.
- The final of the Archery World Cup will be held in Tlaxcala, Mexico.

## Miami Open Tennis Tournament 2024

- At the age of 44, Bopanna broke his own record of being the oldest to win a Masters 1000 title. The Indo-Australian pair defeated Ivan Dodig and Austin Krajicek in the final.
- India's Rohan Bopanna and his Australian partner Matthew Ebden won the Miami Open 2024 tennis men's doubles title in Florida.
- With this win, Bopanna and Ebden have reached the first position in the men's doubles rankings.

- The pair of Bopanna and Ebden won the second ATP Masters 1000 title, they won the Indian Wells tournament in 2023.
- Rohan Bopanna has won 6 ATP Masters titles in his career.
- **Bopanna is the fourth Indian player to win the Miami Open title** after Leander Paes, Mahesh Bhupathi and Sania Mirza.

### Miami Open Winners

- Men's Singles: Jannik Sinner (Italy)
  - Men's Doubles: Rohan Bopanna (India)/ Matthew Ebden (Australia)
  - Women's Singles: Danielle Collins (USA)
  - Women's Doubles: Sofia Kenin/Bethanie Mattek-Sands (USA)
- **Note:** Danielle Collins is the fourth American to win the Miami Open singles title after Serena Williams, Venus Williams and Sloane Stephens.

### BMW Tennis Open 2024

- The pair of India's Yuki Bhambri and France's Olivetti won the title by defeating Germany's Andreas Mies and Jan-Lennard Struff by 7-6, 7-6 in the final.
- This is the first title for the Indian and French pair while this is Yuki Bhambri's second title on the ATP Tour.
- He has also become the first Indian to win the Bavarian International Tennis Championship.
- Yuki Bhambri has reached his career's best ranking of 56th in men's doubles.

### Tejaswin Shankar wins Shocker Spring Invitational 2024 title

- Indian athlete Tejaswin Shankar won the high jump title by jumping 2.17m in his first outdoor meet of the season at the Shocker Spring Invitational 2024 in Kansas.
- Tejaswin was the Asian Games 2023 silver medallist in decathlon.
- He won a bronze medal at the 2022 Commonwealth Games in Birmingham.
- Tejaswin Shankar has the best individual score of 2.29m in high jump.

### Sumit Nagal became the first Indian to win a main draw match at the Monte Carlo Masters.

- Sumit Nagal became the first Indian to win a main draw match at the Monte Carlo Masters on 9 April 2024.

- Sumit Nagal defeated 35th ranked Matteo Arnaldi of Italy in the opening round.
- He defeated Arnaldi in three sets 5-7, 6-2 and 6-4 in the ATP Masters event.
- He is only the third Indian to feature in the main draw at Monte Carlo after Vijay Amritraj (1977) and Ramesh Krishnan (1982).
- He became the first male Indian singles player to win a Masters 1000 match on clay.
- Sumit Nagal is an Indian tennis player.

### Monte Carlo Masters

- It is an annual tennis tournament for male professional players.
- It is held in France.
- It is part of the 9 ATP Tour Masters 1000 events on the ATP Tour.

### Bindyarani Devi won bronze medal at IWF World Cup

- It was held in Phuket, Thailand.
- Bindyarani won the bronze medal in the 55 kg category by lifting a total of 196 kg.
- Along with this, she also won the silver medal with 113 kg in clean and jerk.
- Bindyarani won the overall bronze medal by lifting a total of 196 kg (83 kg in snatch & 113 kg in clean and jerk).
- Bindyarani Devi was the silver medalist of Birmingham Commonwealth Games 2022.
- Kang Hyon Gyong of the Democratic People's Republic of Korea won the gold medal by lifting 234 kg (103 kg snatch + 131 kg clean and jerk).
- In the IWF World Cup, World Championship and Continental Championship, medals are awarded for snatch, clean and jerk and total lifts each.
- Bindyarani won the silver medal in the women's 55 kg category at the Asian Weightlifting Championship 2023 held in South Korea.

### Asian Wrestling Championships 2024

- It was held in Bishkek, the capital of Kyrgyzstan from 11-16 April 2024.
- India won a total of 9 medals including 4 silver and 5 bronze medals.
- 30 Indian wrestlers participated in this competition, including 10 freestyle, 10 Greco-Roman and 10 women wrestlers.

## Asian Wrestling Championship 2024: Medalists of India

- Udit - 57 kg freestyle - Silver medal
- Radhika - 68 kg freestyle - Silver medal
- Anju - 53 kg freestyle - Silver medal
- Harshita - 72 kg freestyle - Silver medal
- Abhimanyu - 70 kg freestyle - Bronze medal
- Vicky - 97 kg freestyle - Bronze medal
- Shivani - 50 kg freestyle - Bronze medal
- Manisha - 62 kg freestyle - Bronze medal
- Antim Kundu - 65 kg freestyle - Bronze medal

- Earlier in the last edition of the Asian Championships held in Amman, Indian wrestlers won 14 medals, including 1 gold, 3 silver and 10 bronze medals.
- Aman Sehrawat was the only wrestler to win a gold medal in men's 57 kg.
- Note: India has so far secured only one Paris 2024 Olympic quota in wrestling.
- Antim Panghal secured the Paris Olympic quota after winning a bronze medal in the women's 53 kg weight category at the World Championship 2023.

## 51st National Carrom Championship

- In the **women's category final of this championship, Rashmi Kumari defeated K. Nagajothi 25-8, 14-20, 25-20.**
- Rashmi Kumari has also been a 3-time world champion. This was a record 12th national women's singles title for Rashmi.
- Rashmi is the Chief Manager in Oil and Natural Gas Corporation (ONGC).
- In the **men's final of this championship, K Srinivas defeated S Aditya 25-0, 19-6 to win the title.**
- Srinivas won the National Men's Singles Championship title for the fourth time.
- The 51st National Carrom Championship was hosted by Madhya Pradesh Carrom Association.

## Open Skiff Euro Challenge Sailing Competition

- This competition was held in Italy from 5-7 April 2024.
- India's 15-year-old Anandi Nandan Chandavarkar won the bronze medal in the mixed category of this competition.
- Anandi also topped the girls' under-17 event.
- Anandi won the gold medal in the Phuket King's Cup in Thailand in the year 2023.

## Balraj Panwar secures India's first rowing quota for Paris Olympics

- Balraj Panwar finished third in the men's single scull event at the 2024 World Asian and Oceanian Olympic and Paralympic Qualification Regatta held in Chungju, South Korea.
- He completed the 2000m race in 7 minutes and 1.2 seconds.
- The top 5 contenders secured a quota for the Olympics in the men's single scull category.

## Sourav Ghoshal retires from professional squash

- Sourav Ghoshal is an Indian squash player. However, he will continue to play for India.
- Ghoshal won 12 Professional Squash Association (PSA) titles during his career.
- He has been in the top 10 athletes in the world squash rankings.
- He is the only Indian man to have entered the top 10 in the world rankings.
- He has won medals in 5 different Asian Games editions, including the team gold medal at Hangzhou 2022 and Incheon 2014 (2 gold medals at Asian Games).
- Dipika Pallikal Karthik and Saurav Ghosal won the gold medal in the doubles event at Glasgow in 2022.
- Saurav Ghoshal and Dipika Pallikal also won the silver medal in mixed doubles at the 2018 Commonwealth Games.
- Saurav Ghoshal won bronze at the Commonwealth Games 2022 held in Birmingham. He also became the first player from India to win an individual medal in squash.
- Saurabh has won the national title 13 times.
- The PSA World Tour is a professional circuit for squash players.
- It is similar to the ATP and WTA in tennis and the BWF in badminton.
- Won the first PSA title at the Malaysian Open Squash Championship in November 2021.

## The Ministry of Railways has given permission to runner Jyoti Yarraji to train under Mission Olympics in Italy

- Asian Games silver medalist runner Jyoti Yarraji will train in Tenerife, Spain to prepare for the Paris Olympics.

- The Union Ministry of Railways will provide financial assistance to her for training under the Mission Olympics Cell.
- Jyothi won a silver medal in the Asian Games 2022 held in Hangzhou.

### Target Olympic Podium Scheme (TOPS)

- It was launched in September 2014 by the Union Ministry of Youth Affairs and Sports (MYAS).
- It aims to provide facilities to ensure better performance of Indian athletes in the Olympics and Paralympics.
- It was revamped in April 2018 with a view to establish a technical support team to provide management and overall support to the athletes.
- The Ministry of Youth Affairs and Sports is responsible for appointing members of TOPS with an emphasis on ensuring representation in **'high priority' sports (archery, badminton, boxing, hockey, shooting and wrestling)**.

### Mission Olympic Cell:

- Mission Olympic Cell (MOC) has been formed to assist the athletes who have been selected under TOPS. The Mission Olympic Cell functions under the chairmanship of Director General, Sports Authority of India (DG, SAI).

### Bilquis Mir to become first Indian woman jury member at Paris Olympic Games

- Bilquis Mir from Jammu and Kashmir will become the first woman from India to be represented as a jury member at the Paris Olympics 2024 to be held from July 26 to August 11.
- Bilquis was a jury member at the Asian Games in Hangzhou, China in the year 2023.
- Earlier, she represented India in canoeing and worked as a coach for the women's national team.
- She has participated as the only Indian woman jury member in the 19th Asian Games (2022) in Hangzhou, China.
- Bilquis is known as the 'Aqua Woman of Kashmir Valley'.

### Max Verstappen became the winner of F1 Japanese Grand Prix 2024

- Red Bull's Max Verstappen won the title of Japanese Formula One (F1) Grand Prix 2024 on 7 April 2024.
- Holland's Max Verstappen defeated Red Bull's Sergio Perez, while Australia's Carlos Sainz finished third.
- Max Verstappen has also been the world champion of 2021, 2022 and 2023.

### Formula One Championship (F1)

- It is organized by the Federation Internationale de l'Automobile (FIA).
- Formula One Championship 2024 includes 24 Grand Prix.
- The driver who wins the maximum points can win the title of World Driver Championship.
- Germany's Michael Schumacher and United Kingdom's Lewis Hamilton have won the World Drivers' Championship 7 times each so far.

### Athletics became the first sport to give prize money to Olympic champions

- World Athletics (WA) has announced prize money for Olympic gold medalists.
- According to World Athletics President Sebastian Coe, each player who wins a gold medal in Paris this year will get \$50,000.
- Olympic silver and bronze medalists in athletics will receive prize money from the 2028 Los Angeles Olympic Games instead of this time.
- **Note:** The International Olympic Committee (IOC) did not use to give prize money to medal winners till now.
- Medal winners get financial assistance from their country's governments, national sports associations or sponsors.

### Hockey India Awards 2024

- Hardik Singh and Salima Tete were named 'Player of the Year 2023' in the men's and women's categories respectively at the sixth annual Hockey India Awards on March 31.
- Hardik Singh was awarded the 'Balbir Singh Senior Trophy' and a cash prize of Rs 25 lakh.
- Note: Hardik Singh has also been the 'FIH (Federation of International Hockey) Player of the Year'

Award	Winners
<ul style="list-style-type: none"> <li>Player of the Year (Women)</li> <li>Player of the Year (Men)</li> <li>Major Dhyan Chand Lifetime Achievement Award</li> <li>Goalkeeper of the Year</li> <li>Defender of the Year</li> <li>Midfielder of the Year</li> <li>Forward of the Year</li> <li>Women Under-21 Player of the Year</li> <li>Men Under-21 Player of the Year</li> </ul>	<ul style="list-style-type: none"> <li>Salima Tete</li> <li>Hardik Singh</li> <li>Ashok Kumar</li> <li>PR Sreejesh</li> <li>Harmanpreet Singh</li> <li>Hardik Singh</li> <li>Abhishek</li> <li>Deepika Soreng</li> <li>Arajjeet Singh Hundal</li> </ul>

- The Indian teams that won the Junior Asia Cup and the Men's and Women's Asian Champions Trophy, as well as the winning team of the Men's Asian Games, were also awarded.

### Hockey India

- Hockey India is the organisation recognised by the International Hockey Federation and the Government of India for governing hockey in India.
- It was established in May 2009 by the merger of the Indian Hockey Federation (IHF) and the Indian Women's Hockey Federation (IWHF).
- Hockey India started the annual Hockey India Awards in 2014.

- Hockey India honoured Indian women's hockey team forward Deepika Soreng with the prestigious **Hockey India Asunta Lakra Award** for Emerging Player of the Year.
- Making her debut for the team in the Women's Junior Asia Cup, she scored 7 goals in 6 matches and played an important role in the team winning the gold medal.
- The 2016 Junior World Cup winning men's team was also honoured at the event.

### The Laureus Sportsman Award was presented to Novak Djokovic.

- Serbian tennis player Novak Djokovic was awarded the Laureus World Sportsman of the Year award for a record 5th time on 22 April 2024 in Madrid.
- Djokovic has won this award 5 times in 2012, 2015, 2016, 2019 and 2024. Spanish football player Aitana Bonmati won the 'World Sportswoman of the Year' award.

### List of winners of Laureus Sports Awards

Category	Winners
World Sportsman of the Year Award	Novak Djokovic
World Sportswoman of the Year Award	Aitana Bonmati
World Team of the Year Award	Spain Women's Football Team
World Breakthrough of the Year Award	Jude Bellingham
World Comeback of the Year Award	Simone Biles
Sport for Good Award	Fundación Rafa Nadal
World Sportsman of the Year with a Disability Award	Diede de Groot
World Action Sportsman of the Year Award	Arisa Trew

### Harendra Singh

- He is a former Indian hockey player and Dronacharya Award winner.
- He has recently been appointed as the coach of the senior national women's hockey team by Hockey India.

### 56th National Kho-Kho Championship (2023-24)

- The 56th National 3-O Championship was held on 1 April 2024 at the Indira Gandhi Indoor Stadium in Delhi.

- In this competition, Maharashtra won the titles in both the women's and men's categories.
- The final match of the men's category was played between Maharashtra and Railways. In which the Maharashtra team defeated the Indian Railways team by 52-50.
- Maharashtra won the women's title by defeating the Airport Authority of India by 18-16.

**Olympic Flame Lighting Ceremony**

- The Olympic Flame Lighting Ceremony was organized on 16 April 2024 in the city of Olympia, Greece.
- The Olympic flame was lit by sunlight through glass, a tradition that has been going on since ancient times.
- The flame lighting ceremony is held 100 days before the start of the Olympic Games.
- The flame keeps burning in the cauldron from the start of the Olympic Games until the end.
- After the ceremony in Olympia, the Olympic flame first travels to Greece.
- It will then be carried for a distance of about 5000 km via Greece and will then be handed over to the organizing/host country.

# 7. AWARDS AND HONORS

## Jack Swigert Jr. Prize 2024 to Chandrayaan-3 Mission Team

- India's Chandrayaan-3 mission team has won the Jack Swigert Jr. Prize for 2024 for raising space exploration standards.
- The Indian Space Research Organization (ISRO) was given this award for the extraordinary achievements of the Chandrayaan-3 team.
- Chandrayaan-3 is the world's first spacecraft to land on the south pole region of the Moon.
- ISRO launched the Chandrayaan-3 mission on 14 July 2023.
- The lander 'Vikram' and rover 'Pragyan' included in the Chandrayaan-3 mission landed on the south pole of the Moon on 23 August 2023.

### Jack Swigert Prize

- This award is given by the Space Foundation of America.
- It recognizes extraordinary achievements by a company, space agency or consortium of organizations in space exploration and discovery.
- The award is given in memory of astronaut John L. Jack Swigert Jr.
- The Space Foundation provides information, education and collaboration for the space ecosystem.

## Breakthrough Prize 2024

- Under this, the award winners were honored at a ceremony organized in Los Angeles on April 13, 2024.
- In this, the most talented people in the world are honored for impressive scientific achievements.
- The Breakthrough Prize is popularly known as the '**Oscar of Science**'.
- These include 11 winners of Breakthrough Prizes in life sciences, fundamental physics and mathematics.

## Breakthrough Prize in Life Sciences

- This year's Life Sciences Prize winners were awarded for breakthrough advances in three major diseases - **cancer, cystic fibrosis and Parkinson's disease**.

- Carl June and Michel Sadelain received the prize for their discovery of how to genetically engineer T cells to treat cancer.
- Sabine Hadida, Paul Negulescu and Frederic Van Goor received the prize for developing the first effective drugs to treat the causes of cystic fibrosis.
- Thomas Gasser, Ellen Sidransky and Andrew Singleton received the prize for discovering the most common genetic cause of Parkinson's disease.

## Breakthrough Prize in Fundamental Physics

- The Breakthrough Prize was awarded to John Cardy and Alexander Zamolodchikov.

## Breakthrough Prize in Mathematics

- The Breakthrough Prize was awarded to Simon Brendel.
- Apart from this, 6 New Horizons Prizes were awarded for early career achievements in Physics and Mathematics.
- 3 female mathematicians were awarded the Maryam Mirzakhani New Frontiers Prize for early career achievements.

## Breakthrough Prize

- This award started in 2010.
- This award is given every year in the field of Biology, Physics and Mathematics.
- Under this award, an amount of 30 lakh US dollars is awarded.
- This award was established by founding sponsors Sergey Brin, Priscilla Chan and Mark Zuckerberg, Julia and Yuri Milner and Anne Wojcicki to underline the major discovery or achievement of the scientific era.

## Pavuluri Subba Rao awarded Aryabhata Award for his contribution to space science

- Dr. Subba Rao Palluvuri, founder and chairman of Anant Technologies, has been awarded the 'Aryabhata Award' instituted by the Aeronautical Society of India (ASI).
- He was also conferred the title of 'Distinguished Fellow' of ASI.
- He received this award for Rao's 'contribution in promoting space science in India'.

## Anant Technologies Limited

- It is an Indian aerospace manufacturing company.
- The company manufactures electronics and mechanical subsystems for launch vehicles, satellites, spacecraft payloads, and ground systems.
- It also builds satellites and provides launch services through a partnership with NewSpace India Limited.
- It was founded in 1992.
- It is headquartered in Hyderabad (Telangana).
- It has centres of excellence in Hyderabad, Bengaluru and Thiruvananthapuram.

Award 2024 in the Renewable Energy Financing category.

- REC has emerged as a key player in India's clean energy transition and is actively contributing to India's sustainable future.
- REC has committed to several sustainable projects and has signed various MoUs for green projects.
- Skoch ESG Awards recognize organizations that excel in Environmental, Social, and Governance (ESG) practices.
- Skoch ESG Awards and Assessment is an important benchmark for evaluating organizations' commitment towards India 2047.

## KISS Humanitarian Award 2021

- **Ratan Tata** was awarded the KISS Humanitarian Award 2021.
- The award was presented by Achyuta Samanta, founder of KISS (Kalinga Institute of Social Sciences).
- Ratan Tata was originally announced to receive the award in 2021. However, it was delayed due to the COVID-19 pandemic.
- Ratan Tata is the Honorary Chairman of the Tata Group. He is a renowned industrialist.
- The KISS Humanitarian Award was established in 2008 by Achyuta Samanta.
- It aims to acknowledge organisations and individuals who epitomise humanitarian work globally.

## REC Limited:

- Its full name is 'Rural Electrification Corporation Ltd'.
- It is a 'Maharatna' category Central Public Sector Enterprise under the Union Ministry of Power.
- It is registered with the RBI as a non-banking finance company (NBFC) and infrastructure finance company (IFC).
- It was established in 1969 to focus on financing and development of the power sector across India.
- It provides financial assistance to state electricity boards, state governments, and central and state electricity utilities.

## Rezwana Choudhury honoured with the Padma Shri

- Renowned Bangladeshi singer Rezwana Choudhury Bannya was honoured with the prestigious Padma Shri award.
- Draupadi Murmu presented the Padma Vibhushan, Padma Bhushan and Padma Shri awards for the year 2024 at the Civil Investiture Ceremony held at Rashtrapati Bhavan.
- She received this award for her contribution in the field of arts.
- She is a practitioner of Rabindra Sangeet.
- She runs a prestigious music school 'Shurer Dhara' in Dhaka. She has also written several books on Rabindra Sangeet.

## Dr Gagandeep Kang awarded with the prestigious John Dirks Prize in Global Health

- Dr Gagandeep Kang is the Global Health Director at the Bill & Melinda Gates Foundation.
- She is the **first Indian woman to receive this award.**
- Dr Kang has made significant contributions in the field of children's health.
- She is also the first Indian woman to be elected a Fellow of the Royal Society.

## REC Limited wins SKOCH ESG Award 2024

- REC Limited has received the Skoch ESG (Environmental, Social, and Governance)

## John Dirks Prize

- It is the most recognized global health award.
- The Gairdner Foundation of Canada awards the John Dirks Prize in Global Health.
- This award is the most prestigious award for globally significant research in biomedical sciences.

## Gold Volunteer Service Award to Lokesh Muni of India

- The US President's Gold Volunteer Service Award was awarded to Jain spiritual leader Lokesh Muni of India.
- This award has been given to him for his contribution to public welfare and humanity.
- Senior Democratic Congressman Brad Sherman presented the Presidential Award Golden Shield and Certificate of Honor to Lokesh Muni at the US Capitol on April 9, 2024.
- Lokesh Muni is the founder of Ahimsa Vishwa Bharati and Vishwa Shanti Kendra in India.

## Gold Volunteer Service Award

- The Gold Volunteer Service Award was established in the US in 2003 by the President's Council on Service and Civic Engagement.
- AmeriCorps is an independent agency of the US government.
- AmeriCorps selects the winners of the President's Gold Volunteer Service Award.

## International Literature Award to Mamata G. Sagar

- The World Writers' Organization (WOW) on 6 April 2024 honoured Kannada poet, playwright and academician, Mamata G. Sagar with the Vishwa Sahitya Puraskar for her contribution to literature.
- The event was held as a part of the 1st Congress of the World Writers Organization in Abuja, Nigeria.
- Mamata G. Sagar writes on issues related to gender, politics and human rights violations with compilations such as 'Kada Navilina Hejje' (published in 1992) and 'Nadia Nirina Teva' (1999).

## Lata Dinanath Mangeshkar Award 2024

- This award was announced by Master Dinanath Mangeshkar Smriti Pratishthan Public Charitable Trust and Mangeshkar family on 16 April 2024 in Mumbai.
- Famous Hindi cinema actor Amitabh Bachchan was honored with the third Lata Dinanath Mangeshkar Award 2024.
- This award was given to **Amitabh Bachchan for his remarkable dedication towards the nation, his people and society.**

- Earlier in the year 2022 and 2023, this award was given to PM Narendra Modi and singer Asha Bhosle respectively.
- This award was started in the year 2022 by the Trust and the Mangeshkar family in the memory of Bharat Ratna and Swar Kokila late Lata Mangeshkar.
- Many other awards were also announced by the Trust and the Mangeshkar family.

Master Dinanath Mangeshkar Award	
Recipient	Category
A.R. Rahman	Music
Randeep Hooda (Special)	Cinema
Ashok Saraf	Music
Padmini Kolhapure	Cinema
Roopkumar Rathore	Music
Atul Parchure	Marathi Theatre
Manjiri Phadke	Literature

## 'Best Airport Staff 2024 in India & South Asia' Award

- GMR Hyderabad International Airport Limited (GHIAL) will be awarded the 'Best Airport Staff 2024 in India & South Asia' award by Skytrax.
- A wide range of factors are analysed for selection for this award, including the combined quality of staff service (attitude, friendliness, efficiency).

## Skytrax

- It is a global air transport rating organisation.
- It has been evaluating airports and airlines around the world since 1989.
- It provides star ratings from 1 to 5 stars based on various evaluations.

## Environmentalist Alok Shukla awarded Green Nobel Prize

- Chhattisgarh environmentalist Alok Shukla has been awarded the 'Gold Man Environmental Award 2024'. This award was given to Alok Shukla, convener of 'Hasdeo Aranya Bachao Sangharsh Samiti', in a program organized on 29 April 2024 in San Francisco, USA.
- This year this award has been given to 7 people from all over the world including Alok Shukla of India.

- This award has been given to Alok Shukla for saving the biodiversity-rich forests (Hasdeo forest) spread over 4.45 lakh acres in Chhattisgarh. Hasdeo Aranya is known as the lungs of Chhattisgarh.
- Known as the Green Nobel Prize, this award is given to grassroots environmental heroes from six continental regions of the world. Apart from Alok Shukla, this award has been given to Sinegugu Zukulu and Nonhle Mbuthuma (both from South Africa) from Africa, Teresa Vicente (Spain) from Europe, Murrawah Maroochy Johnson (Australia) from Australia, Andrea Vidaurre (USA) from North America and Marcel Gomes (Brazil) from South America.

## Film 'All We Imagine As Light' selected for Cannes Film Festival 2024

- Indian filmmaker Payal Kapadia's film 'All We Imagine As Light' has been selected for the Cannes Film Festival 2024. This was announced by the organizers of this festival on 11 April.
- Cannes Film Festival will run from 14-25 May 2024. The best film to be shown at the Cannes Film Festival 2024 will be awarded the 'Palme d'Or' Award.
- This award is also known as the 'Golden Palm Award'.
- This will be the first film to reach this section of Cannes after 40 years. Earlier, Mrinal Sen's film 'Kharij' was shown in the year 1983.
- It is noteworthy that Payal Kapadia's documentary 'A Night of Knowing Nothing' won the L'Oeil D'Or (Golden Eye) award at the Cannes Film Festival in the year 2021.

## 8. PERSON IN NEWS

### Manoj Panda

- Recently he has been nominated as a full-time member of the 16th Finance Commission.
- Panda is a renowned economist and has also worked as a professor at the Institute of Economic Growth.

#### 16th Finance Commission

- **Constituted:** On 31 December, 2023.
- **Chairman:** Dr. Arvind Panagariya (Former Vice Chairman of NITI Aayog)
- **Secretary:** Ritwik Ranjanam Pandey

#### Full-time members

1. Ajay Narayan Jha
2. Annie George Mathew
3. Niranjana Rajadhyaksha
4. Manoj Panda

- **Short-term members:** Soumya Kanti Ghosh
- **First meeting:** 14 February 2024.
- Will submit its report by 31 October 2025 for 5 years from 1 April 2026.

#### Finance Commission

- Article 280 (Constitutional body)
- Formation: By the President.
- Composition: 1 Chairman + 4 Members
- Appointment: By the President.
- Period: Every 5 years.
- Institution: Quasi-judicial body.
- Recommendations: Advisory (not binding)
- Powers: All powers of a civil court.
- Report: To the President. (Laid before both houses of Parliament by the President)
- First Chairman: K.C. Neogy.
- 15th Chairman: N.K. Singh.
- **Objective:** To recommend allocation of revenue resources between the Central and State Governments.

### Rakesh Mohan

- Rakesh Mohan has been made a **member of the World Bank Economic Advisory Panel**.

- He is currently the Honorary President at the Center for Social and Economic Progress (CSEP).
- He also serves as a part-time member of the Prime Minister's Economic Advisory Council.
- He has also been a former Deputy Governor of the Reserve Bank of India and an Executive Director in the Board of the International Monetary Fund.
- He also served as Secretary of Economic Affairs and Chief Economic Adviser in the Ministry of Finance.
- Lord Nicholas Stern will be the chairman of the World Bank Economic Advisory Panel.
- World Bank Group Chief Economist **Indermit Gill** will co-chair the panel.

### Rabi Sankar

- He is the Deputy Governor of the Reserve Bank of India who has been given an extension of 1 year.
- The Appointments Committee of the Cabinet has approved extension of a period of one year starting from May 3, 2024.
- He was appointed as the Deputy Governor of RBI for a term of 3 years in May 2021.

### Gopi Thotakura

- Gopichand Thotakura will become **the first Indian tourist to travel to space**.
- Gopichand is one of the 6 people going to the **NS (New Shepard)-25 mission** of Jeff Bezos' space startup Blue Origin.
- Apart from Thotakura, this mission will include 5 other astronauts Ed Dwight, Mason Angel, Sylvain Chiron, Kenneth L. Hess and Carol Schaller.
- The first Indian to go to space was Rakesh Sharma in 1984.
- Gopichand is the co-founder of Preserve Life Corp. It is a Georgia-based wellness and applied health center company.
- Note: After Gopichand, senior travel documentary producer Santosh George Kulnagara will also go in the Virgin Galactic space plane.

- This will be the 7th flight to take humans to space under the 'New Shepard' mission and the 25th flight of the mission.
- 'New Shepard' is a fully reusable suborbital launch vehicle developed by Blue Origin for space tourism.

### Justice Aniruddh Bose

- Aniruddh Bose has been appointed as the new director of the National Judicial Academy (NJA): Bhopal.
- He is a retired judge of the Supreme Court.

### National Judicial Academy (NJA)

- It was registered on 17 August 1993 under the Societies Registration Act 1860.
- Its founding director was N.R. Madhav Menon.
- This institute is located in Bhopal.
- Its primary objective is to provide training and education to judges of trial courts and constitutional courts across the country.
- The Chief Justice of India is the Chairman of the Governing Council of this institute.
- Its Director is the Principal Executive Officer of NJA.
- Its Director is appointed by the Chief Justice of India.

### Naima Khatoon

- Naima Khatoon has been appointed the first woman Vice Chancellor of Aligarh Muslim University (AMU).
- Naima has been the head of the Department of Psychology.
- Her tenure will be for 5 years.

### Jagjit Pavadia

- Jagjit Pavadia of India has been re-elected to the International Narcotics Control Board (INCB) for the third term.
- He has been elected for five years from March 2025-2030.
- Ms. Pavadia has been a member of the International Narcotics Control Board continuously since 2015.
- He has also been the Chairman of this Board (INCB) in 2021-2022.

### International Narcotics Control Board (INCB)

- It was established in 1968.
- It is an independent and quasi-judicial monitoring body for the implementation of the United Nations international drug control conventions.

- It consists of 13 members who are elected by the Economic and Social Council.
- In this, 3 members with medical, medicinal or pharmaceutical experience are selected from the list of persons nominated by the World Health Organization (WHO).
- While 10 members are selected from the list of persons nominated by the governments.

### Dinesh Kumar Tripathi

- Dinesh Kumar Tripathi has been appointed as the new Chief of the Indian Navy.
- He replaced Admiral R Hari Kumar on 1 May.
- He has served as the Flag Officer Commanding-in-Chief of the Western Naval Command.
- He became the 38th Vice Admiral of the Naval Staff on 4 January 2024.
- He is a Communications and Electronic warfare specialist.
- He has been awarded the Ati Vishisht Seva Medal and the Naval Medal.

### Mukesh Dalal

- Mukesh Dalal has been **elected unopposed as the first MP from Surat Lok Sabha seat for the 18th Lok Sabha.**
- Congress candidate Nilesh Kumbhani from Surat Lok Sabha seat could not present the proposer before the election officer. Due to this, after his nomination was canceled, the remaining 8 candidates also withdrew their names.
- Earlier in the year 2012, Dimple Yadav from Samajwadi Party was elected unopposed from Kannauj in Uttar Pradesh.

### Nalin Prabhat

- Senior IPS officer Nalin Prabhat has been **appointed as the Director General of the country's counter-terrorism force, National Security Guard (NSG).**
- He has held the post of Additional Director General in CRPF.
- The Appointments Committee of the Cabinet (ACC) approved the term till 31 August 2028.
- Earlier, Sashastra Seema Bal (SSB) chief Daljit Singh Chaudhary was holding additional charge of NSG.

## Adwaita Nayar

- Nykaa's co-founder and CEO Adwaita Nayar has been included in the World Economic Forum's 2024 Young Global Leaders Community.
- Nayar joined a group of 90 individuals from around the world for her work as a change-maker and entrepreneur.
- She is one of the world's most powerful political and business leaders.
- She played a key role in founding the company and turning it into a business.
- The World Economic Forum's Young Global Leaders Forum aims to highlight the achievements of change makers under the age of 40 and help find solutions to the world's problems.

## Kamal Kishore

- United Nations Secretary-General Antonio Guterres has appointed Kamal Kishore as **his Special Representative for Disaster Risk Reduction**.
- He has been a senior official of India's National Disaster Management Authority.
- Kamal Kishore has been appointed as Assistant Secretary-General and Special Representative of the Secretary-General of the United Nations Office for Disaster Risk Reduction (UNDRR).
- As part of India's G20 presidency, Kishore led the G20 Working Group on Disaster Risk Reduction.

### United Nations Office for Disaster Risk Reduction (UNDRR)

- Formed in: 1999.
- Headquarters: Geneva (Switzerland).
- Objective: To ensure the implementation of the international strategy for disaster reduction.

## Narsingh Yadav elected chairman of WFI's seven-member athletes panel.

- Former Commonwealth Games gold medallist Narsingh Pancharam Yadav elected chairman of the Athletes' Commission of Wrestling Federation of India.
- Narsingh Yadav is an Arjuna Award winner and 2010 Asian Championships gold medallist.

## Judith Suminwa Tuluka

- Judith Suminwa Tuluka has been **appointed the first woman Prime Minister of the Democratic Republic of Congo**.
- Tuluka is an economist. She has worked for the United Nations Development Program (UNDP) as the coordinator for the Consolidation of Peace and Strengthening of Democracy pillar in Kinshasa, the national capital of Congo.
- In Congo, the President appoints a member of the country's largest party, The Legislative Party as the Prime Minister.
- Currently, there is a tense situation in the area of Congo bordering Rwanda.
- More than 120 armed groups have captured the gold mines and other resources of this area.
- Congo is the second largest country in Africa after Algeria.

## Abdel Fattah El-Sisi

- Abdel Fattah El-Sisi took oath for his **third term as the President of Egypt**.
- El-Sisi's term will be 6 years.
- El-Sisi has been the army chief of Egypt.
- He received 89.6% of the vote in the elections.
- El-Sisi replaced then-President Mohamed Morsi in 2013.
- He was re-elected in 2018. He had won both the previous elections with 97% of the votes.
- He extended the presidential term from 4 to 6 years and amended the constitution to increase the limit of consecutive terms from 2 to 3 times.

### Egypt

- Its capital is Cairo.
- Its currency is the Egyptian pound.
- Its Prime Minister is Mustafa Madbouly.

## Simon Harris

- Simon Harris became the new Prime Minister of Ireland on 9 April 2024.
- He replaced Indian-origin Leo Varadkar.
- The Irish Parliament voted 88 to 69 in favor of Harris.
- He became the youngest Prime Minister of Ireland ever.

## Ireland

- It is a country located in northwestern Europe.
- Its capital is Dublin. It is a unitary parliamentary republic.
- Its parliament or legislature is known as the Oireachtas.
- Its lower house is Dáil Éireann and the upper house is Seanad Éireann.
- The head of the government is the Taoiseach (Prime Minister), who is appointed by the President.

## Peter Pellegrini

- Peter has become the President of Slovakia.
- Peter Pellegrini defeated opposition candidate Ivan Korcok.
- While Peter Pellegrini got 53% of the votes, Korcok got 47% of the votes.
- Peter Pellegrini is currently serving as the Speaker of the Parliament.
- In Slovakia, the President selects the Prime Minister after parliamentary elections.

## Slovakia

- It is located in Central Europe.
- It is bordered by Poland to the north and Ukraine to the east.
- It is bordered by Hungary to the south, Austria to the west and the Czech Republic to the northwest.
- Its capital is Bratislava and it has a unitary parliamentary republic system.

## Kristalina Georgieva

- Kristalina Georgieva has been **reappointed as the Managing Director (MD) of the International Monetary Fund (IMF)**.
- Her appointment is for a 5-year term starting October 1, 2024.
- Georgieva is the second woman to head the IMF.
- She has led the IMF through a period of great turmoil in the global economy, from the outbreak of the Covid-19 pandemic to Russia's invasion of Ukraine.
- Traditionally, European countries recommend the Managing Director of the IMF.

## Bjarni Benediktsson

- Bjarni Benediktsson has been appointed as the Prime Minister of Iceland.

- He replaced Katrin Jakobsdottir.
- Benediktsson has served as the Foreign Minister of Iceland.

## Sheikh Ahmad Abdullah Al-Ahmad

- The Emir of Kuwait has appointed Sheikh Ahmad Abdullah Al-Ahmad Al-Sabah as the **new Prime Minister of Kuwait**.
- After the election of the new Parliament on April 4, Sheikh Mohammad submitted the resignation of his cabinet on April 6. His resignation was a procedural step after the new Parliament was elected.
- The new Prime Minister Sheikh Ahmad is a Kuwaiti economist. He has also been the Minister of Health, Oil and Information from 2006 to 2011 and the Minister of Finance and Communications from 1999 to 2005.
- Kuwait, with a population of about 4.2 million, is the country with the sixth largest oil reserves in the world.
- Kuwait has strategic ties with the United States dating back to the 1991 Gulf War.

## Russ Cook

- British national and marathon runner Russ Cook completed **his run across Africa on 7 April after travelling through 16 countries** on a 352-day odyssey.
- In April 2023, Mr. Cook began his journey from the southernmost point of Africa, the South African village of L'Agulhas, and travelled up the west coast of the continent, covering a total distance of more than 16,000 kilometres.
- Before arriving in Ras Angela, Mr. Cook passed through Namibia, Angola, the Democratic Republic of the Congo, the Republic of the Congo, Cameroon, Nigeria, Benin, Togo, Ghana, Ivory Coast, Guinea, Senegal, Mauritania and Algeria.
- Along the way he has raised more than £5 million for charity.

## Sanjay Nayar

- Chairman of Sorin Investment Fund, Sanjay Nayar has taken over as the President of the industry body ASSOCHAM for the year 2024-25.
- Nayar has replaced SpiceJet Chairman and Managing Director Ajay Singh on this post, whose term has ended.

## ASSOCHAM

- Full name of ASSOCHAM: Associated Chambers of Commerce and Industry of India.
- Headquarters: New Delhi
- Established: 1920
- It is one of the top trade associations of India. This organization represents the interests of trade and commerce in India.

## Jayshree Das Verma

- Took charge as the 41st President of the industry body FICCI Women's Organization (FLO).

## Peter Higgs

- British physicist Peter Higgs passed away at the age of 94.
- He gave a theory on the existence of the Higgs **boson particle**, also known as the '**God particle**'.
- He served as a professor at the University of Edinburgh for almost five decades.
- The 'God particle' was discovered on July 4, 2012 during an experiment at the Large Hadron Collider (LHC) at the European Organization for Nuclear Research (CERN) near Geneva, Switzerland.
- He was **jointly awarded the Nobel Prize in Physics in 2013 along with Francois Englert** for the theory that predicted the existence of the 'God particle'.

## Higgs field-Higgs boson

- Everything around us is made up of particles. But when the universe began, no particle had mass, they were all wandering here and there with the speed of light.
- Stars, planets and life could only form because particles gained their mass from the fundamental field associated with the Higgs boson, the Higgs field.
- The existence of this mass-giving field was confirmed in 2012 when the Higgs boson particle was discovered at CERN.

## D.S. Majithia

- D.S. Majithia was the oldest retired fighter pilot of the Indian Air Force (IAF).
- He flew aircraft like Gypsy Moth, Wapiti, Hart, Audax and Atalanta.
- He joined the Air Force volunteer services in 1940.
- He won the best pilot trophy at the Initial Training School in Walton, Lahore.
- He retired in August 1947. He was known as 'Maji'.

## Subrahmanya Dhareshwar

- The Yakshagana exponent died on April 25 in Bengaluru at the age of 67.
- Yakshagana singer Subrahmanya Dhareshwar is also known as 'Bhagavata Shrestha' for his excellent voice.
- Subrahmanya Dhareshwar was active in the field of Yakshagana for 46 years.
- Yakshagana is a unique dance form of coastal Karnataka which includes distinctive singing, dance and drama styles.
- It has similarities with the Theyyam art form of neighbouring state Kerala.

## Sudhir Kakkar

- Sudhir Kakkar, known as the **father of Indian psychoanalysis**, passed away at the age of 85.
- He was a renowned writer and cultural critic.
- He did notable work in the field of psychoanalysis in India.
- He has written more than 20 non-fiction and fiction books.
- The Inner World (1978) was one of Kakkar's first major works.
- He raised rarely discussed topics in India including the influence of religion, social norms, intimate relationships and sexual expression.

## 9. PLACES IN NEWS

### Nathpa Jhakri: India's first multi-purpose green hydrogen pilot project inaugurated

- India's first multi-purpose (heat and power combined) green hydrogen pilot project was inaugurated at Nathpa Jhakri Hydro Power Station (NJHPS) on 24 April, 2024.
- This 1500 MW project is located at Jhakri in Himachal Pradesh.
- It belongs to 'Satluj Jal Vidyut Nigam' (SJVN).
- This green hydrogen pilot project with state-of-the-art technology will produce 14 kg of green hydrogen in eight hours of operation daily.
- The hydrogen produced will be stored at a pressure of 30 bar in six storage tanks with a total storage capacity of 12 m<sup>3</sup>. The project will produce hydrogen using an alkaline electrolyser of 20 Nm<sup>3</sup>/hr capacity, which will be powered by renewable energy supplied from SJVN's 1.31 MW solar power plant located at Wadhal (Shimla).

### Phanigiri: Discovery of historic coin hoard

- The Heritage Department of Telangana has discovered a coin hoard at Phanigiri, **a famous Buddhist heritage site located 110 km from the state capital Hyderabad.**
- 3,730 lead coins have been found in an earthen pot at this place, bearing the symbol of an elephant on the obverse and the symbol of Ujjain on the reverse.
- These coins belong to the Ikshvaku period. The Ikshvaku dynasty ruled the eastern valley of the Krishna river around the third and fourth centuries after the decline of the Satavahana power.
- The village of Phanigiri is named after the shape of the hill which looks like a snake's hood.
- It is believed that Phanigiri was one of the strategically important Buddhist monasteries located on the hilltop on the ancient trade route (Dakshinapatha) connecting the west and east coast of Deccan.

### Bharati Research Station: India's third post office in Antarctica

- The Department of Posts will set up India's post office at **Bharati Research Station in Antarctica**. The **new PIN code of this station will be MH -1718**.
- **Note:** At present, India has two active research stations in Antarctica - Maitri and Bharati - located 3,000 km from each other. Both the post offices are part of Goa Postal Division.
- India's first post office in Antarctica was established in 1984 at South Gangotri.
- South Gangotri was India's first research station in Antarctica.
- South Gangotri sank under ice in 1988-89 and was later decommissioned.
- On 26 January 1990, the second post office was established at Maitri Research Station of India in Antarctica.
- 5 April was chosen as the date to open the third post office in Antarctica as it was the 24th foundation day of the National Centre for Polar and Ocean Research (NCPOR).
- Antarctica is governed by the 'Atlantic Treaty', which excludes territorial claims of any country and prohibits military activity or nuclear testing.
- That is, the continent of Antarctica can be used only for scientific research.
- Indian Post Office can be established only in the jurisdiction of Indian land.
- Antarctica, a land where Indian Post Office is located, implies that it serves a strategic purpose in terms of asserting India's presence on this continent.

### IIT Bombay: Launch of first indigenous CAR-T cell therapy for cancer treatment

- President Smt. Draupadi Murmu launched **India's first indigenously developed gene therapy for cancer treatment at Indian Institute of Technology (IIT) Bombay** on 4th April 2024.
- The name of this therapy for the treatment of cancer is '**NexCAR19 CAR-T Cell Therapy**'.

- It has been **developed by IIT Bombay, Tata Memorial Hospital in collaboration with ImmunoACT.**
- This gene-based therapy will prove to be helpful in the diagnosis of various types of cancer.
- This **NexCAR19 CAR-T -cell therapy** is the country's first CAR-T cell therapy, which will also reduce the cost of cancer treatment.
- NexCAR19 has been launched at about one-tenth of the price available outside India. The cost of treatment abroad is about ₹ 4 crore.

### Command Hospital, Pune: The first government hospital in the country to implant piezoelectric bone conduction hearing implant

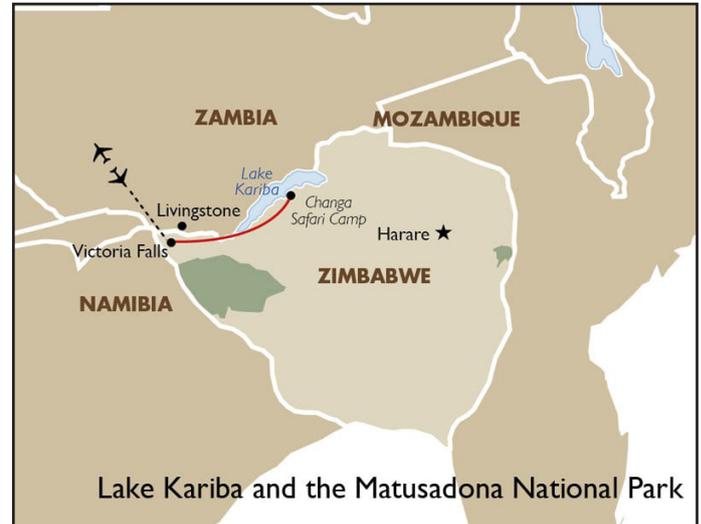
- The Ear, Nose and Throat (ENT) department of Command Hospital Pune (Southern Command) has become the first government hospital in the country to successfully implant **piezoelectric Bone Conduction Hearing Implant (BCI)** in patients with severe congenital disorders in the outer and middle parts of the ear.
- Piezoelectric BCI system is an implantable medical electronic device for hearing impaired patients.
- The cost of this device is very high, due to which its access to people is limited.
- There are many patients with conductive/mixed hearing loss or deafness in one ear who cannot undergo cochlear implantation and do not benefit from hearing aids or middle ear surgery.
- Bone conduction implantation is the treatment for such patients.

### Andaman & Nicobar: Shompen tribes exercise their franchise for the first time

- For the first time, Shompen tribes participated in the election process by casting their vote in Andaman & Nicobar Lok Sabha constituency on 19th April 2024.
- 7 members of the Shompen tribe exercised their franchise at a polling station called 'Shompen Hut' built inside the Forest Staff Quarters.
- **Shompen is one of the Particularly Vulnerable Tribal Groups (PVTGs) in the country.**
- They live in the dense tropical rain forests of Great Nicobar Island.
- According to the 2011 census data, the estimated population of Shompen was 229.

- The other two primitive tribes of Andaman-Nicobar such as Onge and Great Andamanese have also exercised their franchise this time as in the 2019 Lok Sabha elections.

### Lake Kariba: Drought caused by El Nino



- The water level of Lake Kariba in Zimbabwe has fallen due to the drought caused by El Nino.
- President of Zimbabwe Emmerson Mnangagwa has declared a national disaster.
- Since the beginning of 2010, the El Nino weather pattern has increased the drought and heat in the Zambezi region, causing a drop in the water level in Lake Kariba.
- Kariba is a 280 km long man-made lake.
- The Kariba Dam was built in 1955-1959 in the Zambezi River basin between Zambia and Zimbabwe.

### Salas y Gomez: 160 marine species discovered near underwater mountain range

- Following the discovery of the Salas y Gomez underwater mountain range in the southeastern Pacific Ocean, scientists announced the discovery of 160 marine species.
- At least 50 of those species are new to science. Squid, fish, corals, molluscs, sea urchins, crabs and squat lobsters have been discovered.
- The discovery came after a 40-day expedition from the Salas y Gomez Ridge to Rapa Nui.
- Data collected from the expedition will help establish new marine protected areas.
- The Salas y Gomez area has more than 110 seamounts and is home to many marine animals.

- Following the ratification of the United Nations High Seas Treaty, the Salas y Gomez Ridge is under consideration to be designated as a high seas marine protected area.

## Telangana: 3 new archaeological sites discovered

- A team of archaeologists has discovered a unique Iron Age megalithic site at **Ooragutta near Bandla village in Tadvai mandal of Mulugu district in Telangana.**
- Two new rock art sites have also been discovered at Choppala village in Bhadradi Kothagudem district in Telangana.

### Ooragutta: Iron Age megalithic site

- The site was discovered by K.P. Rao, Professor of History at the University of Hyderabad, and B Praveen Raju, Yogi Vemana University, Kadapa.
- The site has a new type of monuments, which are not found in other regions of India.
- In this region we find a type of megalithic monument known as 'Dolmenoid Cists'. Most of the monuments in this region are square or rectangular in shape.
- These monuments can be dated to around 1,000 BCE.

### Two new rock art sites in Choppala village

- These sites were discovered by KP Rao, Honorary Professor of University of Hyderabad.
- One of these has depictions of only animals, there is no depiction of humans. These paintings belong to the Mesolithic Age (8000-3000 BCE) as there are no weapons or domestic animals shown in them.

## Kutch (Gujarat): Fossil of giant snake 'Vasuki indicus' discovered

- Researchers from Indian Institute of Technology (IIT) Roorkee have discovered the fossil of one of the largest snakes.
- According to new research, 47 million years old fossils found in 2005 from **Kutch in Gujarat** could be from the spine of one of the largest snakes.
- In a study published in the journal Scientific Reports, the researchers have named it Vasuki indicus.
- This name is inspired by Vasuki, the serpent of Lord Shiva who churned the ocean as described in mythology.

- The 10-15 meter long fossil remains of Vasuki indicus have been found in 27 pieces in the Panandhro lignite deposit in Kutch, Gujarat.
- This species belongs to the now extinct Madtsoiidae snake family.
- The body of Vasuki indicus was probably broad and cylindrical.
- Vasuki indicus belongs to a group of snakes called Madtsoiidae that first appeared in South America, Africa, India and Southern Europe 60-100 million years ago.

## Padta Bet: 5200 years old Harappan settlement

- Padta Bet is an archaeological site near Juna Khatia village in Kutch district of Gujarat, where archaeologists from Kerala University have discovered an important 5200 years old Harappan settlement.
- The remains recovered from here include terracotta pottery, artifacts and animal bones.
- These remains date from the Early Harappan period of about 3200 BC to the Late Harappan period of 1700 BC.
- Earlier, archaeologists had unearthed a mass burial site consisting of 500 graves on the outskirts of Juna Khatia village in Kutch district of Gujarat in the year 2018.

## New Delhi: India's largest climate clock installed

- India's largest climate clock was installed and activated by the Council of Scientific and Industrial Research (CSIR) at CSIR Headquarters, Rafi Marg, New Delhi on 22 April 2024 on the occasion of Earth Day.
- It aims to spread awareness about climate change and its ill effects.
- Under the CSIR-Energy Swaraj Foundation MoU, energy literacy training was also given at CSIR.
- Chetan Singh Solanki (Professor of IIT, Bombay) is the founder of Energy Swaraj Foundation.

## Vizhinjam Port: Approved to operate as India's first transshipment hub

- **Adani Group's Vizhinjam Port in Kerala** has received approval from the Centre to operate as **India's first transshipment port.**
- It will be India's first full-fledged deep water transshipment port.
- This will help India become a manufacturing hub.

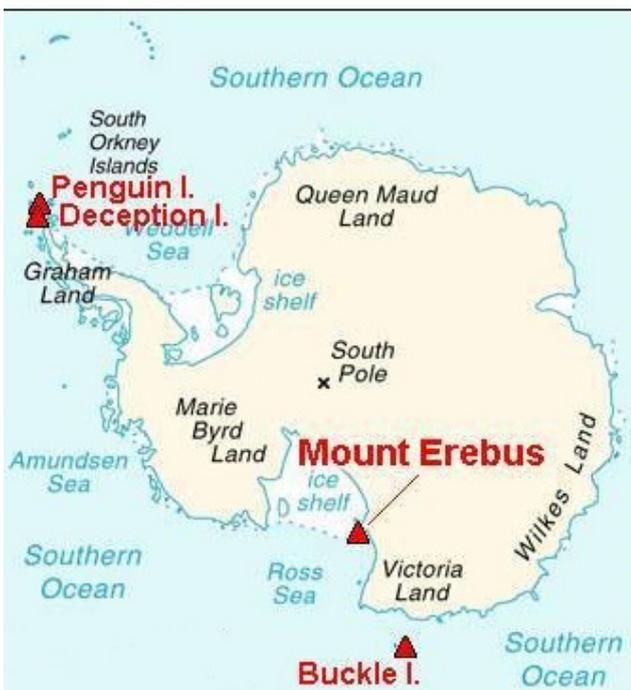
- A transshipment port is an important hub where cargo is transferred from a large ship to several smaller ships.
- 75% of India's transshipment cargo is currently processed at foreign ports such as Colombo, Singapore and Klang.

### Dharamshala: India's first 'hybrid pitch' to be built

- Himachal Pradesh's Dharamshala Stadium has become the first BCCI-recognised venue to install a state-of-the-art 'hybrid pitch'.
- International and IPL matches will be held on this track.
- The hybrid pitch has been installed by SISGrass Company of Netherlands.
- This pitch will provide a more durable, consistent and high performance pitch surface with new technology for international and ODI matches.
- ICC has approved the use of hybrid pitch in 20 and 50 over matches.
- Under this, polymer fiber is added to the natural turf inside cricket stadiums to make the surface more flexible during the game. This will ensure uniform bounce on the pitch.
- After the hybrid pitch is built in Dharamshala, such pitches will also be built in Ahmedabad and Mumbai.
- Hybrid pitches are also called 'stitched pitches'.

### Mount Erebus volcano: Spewing about 80 grams of gold dust every day

#### Major Volcanoes of Antarctica



- This volcano is located on Ross Island in **Antarctica**, the southernmost point on Earth.
- Experts estimate that Mount Erebus is one of the 138 active volcanoes in Antarctica.
- It spews gases containing about 80 grams of crystallized gold per day, which is worth about \$6,000. The volcano is 12,448 feet high and releases huge clouds of dust that can spread up to 621 miles (1,000 kilometers).
- According to the National Aeronautics and Space Administration (NASA) Earth Observatory, gold dust is one of the substances released from the volcano.
- Other gases and substances released from the volcano include water vapor, carbon dioxide, sulfur dioxide and ash.
- The Mount Erebus volcano lies on a thin-layered tectonic plate, which allows molten rock (magma) to rise easily.
- Mount Erebus has been erupting continuously since 1972.

### Mount Etna Volcano: Volcanic vortex ring made of smoke from the crater



- Mount Etna is one of the largest and most active volcanoes in Europe.
- Recently, the formation of a ring of gases from the crater of this volcano is a rare phenomenon, which scientists call a volcanic vortex ring.
- Mount Etna is located on the eastern coast of Sicily, the largest island in the Mediterranean Sea.
- Mount Etna has been included in the UNESCO World Heritage Site since 2013.

## **Volcanic vortex ring**

- These rings emerge from a new crater formed in the volcano.
  - When hot gas and steam come out of the volcano simultaneously, then smoke comes out of the crater in the form of rings.
- Vortex rings are formed when gases, mainly water vapour, escape rapidly upwards through a vent in the crater.
  - The vent in the crater of Mount Etna is almost circular, so the rings are circular too.

# 10. IMPORTANT FACTS

## 'Myth vs Reality Register'

- The Election Commission has launched a register called 'Myth vs Reality' to tackle the spread of misinformation in the elections.
- It is on the official website of the Election Commission.
- This Myth vs Reality Register serves as a repository of misinformation related to elections in India, providing a reliable resource to verify the authenticity of information about the electoral process being circulated during the election period.
- The register aims to promote transparency, accuracy and responsible communication during elections.
- It will ensure a level playing field for all stakeholders in the Lok Sabha elections.
- By documenting and listing instances of fake news, the register serves as a reference guide.



## 'Parivartan Chintan': First Tri-Services Conference

- The first tri-services conference 'Parivartan Chintan' was held on 8 April 2024 in New Delhi.
- This conference was organized by the Union Ministry of Defence.
- This conference was chaired by India's second Chief of Defence Staff (CDS) General Anil Chauhan.
- It was attended by Indian Army Chief General Manoj Pandey, Indian Air Force Chief Air Marshal Vivek Ram Choudhary and then Indian Navy Chief Admiral A. Hari Kumar (present: Dinesh Kumar Tripathi).
- The objective of this conference was to work towards new ideas, initiatives and reforms to take forward the integration efforts among the armed forces.
- Under this, the goal is to advance transformational changes in the armed

forces, strengthen their readiness for future wars and enable tri-service, multi-domain operations.

- There was a discussion on setting up an Integrated Theater Commands by combining all the three forces of the armed forces in the country.

### Integrated Theater Command

- The 'Joint Command' of the military services (Army, Air Force and Navy) is called 'Integrated Theater Command'.
- The commanders of these forces (Army, Air Force and Navy) can use their capabilities and all the resources of the three forces together.
- In India, a total of 17 commands have been created for the three forces. Of these, 7 commands are of the Army and the Air Force each, while 3 are Navy commands. Andaman and Nicobar Command (ANC) and Strategic Forces Command (SFC) are the current two integrated commands in India.
- With the implementation of integrated theater command, every command will have a single commander for all three forces. This commander will be able to make decisions for all resources.
- The establishment of an integrated tri-service command in India was recommended by the **D.B. Shekatkar Committee**.
  - The Lieutenant General (Retired) D.B. Shekatkar Committee was constituted by the Union Ministry of Defense in 2015.
- Many countries of the world, such as the United States of America, China, etc. have theater commands.
- America was the first country to implement the theater command system.

### 2550th Nirvana Mahotsav of Bhagwan Mahavira

- The Prime Minister inaugurated the 2550th Nirvana Mahotsav of Bhagwan Mahavira at Bharat Mandapam, New Delhi on 21 April 2024.

- On this occasion, the Prime Minister also released a commemorative postage stamp and coin.
- Bhagwan Mahavira was the 24th Tirthankara. This year, 21 April 2024 was the birth anniversary of Bhagwan Mahavira Swami.
- Mahavira Janma Kalyanak is one of the major religious festivals of Jainism. It is celebrated on the birthday of Mahavira.
- Jains celebrate Mahavira Janma Kalyanak every year on the 13th day of Chaitra month.

### **Bhagwan Mahavira Swami**

- Mahavira was the 24th and last Tirthankara of Jainism.
- Mahavira was born in 540 BC in Kundagram (Vaishali).
- Mahavira's childhood name was Vardhaman. His mother was Trishala and father was Siddhartha.
- He was the successor of the 23rd Jain Tirthankara Parshvanath.
- Mahavira's wife's name was Yashoda and daughter's name was Anojja Priyadarshini.
- After the death of his parents at the age of 30, he took sanyas after taking permission from his elder brother Nandivardhan.
- Mahavira attained complete knowledge after 12 years of hard penance under a Sal tree on the banks of the Rijupalika river near Jrimbhik.
- Mahavira gave his sermons in Prakrit language.
- The three jewels of Jainism are Samyak Darshan, Samyak Gyan and Samyak Achar.
- Jainism has 5 Mahavratas - Ahimsa, Satya Vachan, Asteya, Aparigraha and Brahmacharya.
- Mahavira's Nirvana (died) took place in 468 BC in Pavapuri (Rajgir).
- The followers of Jainism celebrate the Panch Kalyanaka (five main events) of every Tirthankara including Mahavir Swami Ji.
- Panch Kalyanak are:
  - Garbha Kalyanaka
  - Janma Kalyanaka
  - Tapa (sacrifice) Kalyanaka
  - Gyan (omniscience) Kalyanaka
  - Nirvana (Mukti/Param Moksha) Kalyanak

### **'Operation Prahar'**

- This operation is being run against Naxalites.
- Recently, security forces killed 29 Naxalites in Kanker, Chhattisgarh.
- Under this, BSF has established new camps in Naxal-affected areas in 4 months.
- In this, BSF has strengthened the Naxal cordon by establishing new camps in Naxal-affected areas.

### **India Achieves Elimination of Visceral Leishmaniasis 'Kala-azar'**

- According to data from the National Centre for Vector Borne Disease Control (NCVBDC), India has achieved its target of elimination of Visceral Leishmaniasis, commonly known as Kala-azar.
- India had initially set a target of eliminating Kala-azar by 2010, but due to persistent challenges, this target was extended to 2023.
- According to the latest data from NCVBDC, India recorded only 520 cases of Kala-azar across India in 2023, which meets the elimination criteria set by the World Health Organization (WHO).
- According to WHO criteria, for Kala-azar elimination, there should not be more than one case of Kala-azar per 10,000 people in any block in the country.

### **Kala Azar**

- This disease is caused by protozoan parasites of the genus Leishmania.
- In India, only the Leishmania donovani parasite causes this disease.
- This parasite mainly infects the reticuloendothelial system and is found in abundance in the bone marrow, spleen and liver.
- For this reason, Kala Azar has been named by the Indian name 'Kala Bukhar'.

### **Surya Tilak of Ram Lalla in Ayodhya**

- Surya Tilak of the idol of Ram Lalla installed in the newly constructed Shri Ram temple in Ayodhya was done on the occasion of Ram Navami on 17 April, 2024.
- On the Navami Tithi of Chaitra Shukla Paksha, on the occasion of Lord Ram's birth anniversary, the rays of the sun remained on the forehead of the idol of Ram Lalla as 'Surya Tilak' for about four minutes.

- For the above mentioned Surya Tilak, the Indian Institute of Astrophysics (IIA), Bengaluru has played a key role in the Surya Tilak project.
- IIA is an autonomous body under the Department of Science and Technology.
- The Surya Tilak was executed on 17th April, 2024 with the use of a design consisting of 4 mirrors and 2 lenses.
- The final design of Surya Tilak with 4 mirrors and 4 lenses will be used after the complete construction of the temple by placing the mirrors and lenses in their permanent location.
- The instrument has been manufactured by Optica, Bangalore.
- The opto-mechanical system is being implemented at the site by CSIR-Central Building Research Institute 'CSIR-CBRI', Roorkee.
- This platform will provide instant subsidy transfer to farmers in their bank account using e-RUPI vouchers from National Payments Corporation of India (NPCI).
- A farmer can login using his mobile number and place an order for planting material like seeds, saplings and plants based on his requirement.

### e-RUPI Voucher

- The CDP-SURAKSHA platform uses NPCI's e-RUPI voucher.
- It is a payment mechanism that can be used at merchants accepting e-RUPI without a card, digital payment app or internet banking access at merchants accepting e-RUPI.
- e-RUPI can be shared with beneficiaries via SMS or QR code by organizations or the government for a specific purpose or activity.

### 'Shakti – Festival of Music and Dance'

- It was organized by Sangeet Natak Akademi.
- The festival was held from 9-17 April 2024 at 7 different Shaktipeeths across India.
- The festival was organized by Sangeet Natak Akademi to revive temple traditions in the country.
- Shakti Utsav started from 9 April at Kamakhya Temple, Guwahati.
- It was also celebrated at Mahalaxmi Temple, Kolhapur, Maharashtra, Jwalamukhi Temple, Kangra, Himachal Pradesh, Tripura Sundari, Udaipur, Tripura, Ambaji Temple, Banaskantha, Gujarat, Jai Durga Shakti Peeth, Deogarh, Jharkhand.
- It concluded on 17 April 2024 at Shakti Peeth Maa Harsiddhi Temple, Jaisinghpur, Ujjain, Madhya Pradesh.

### CDP-SURAKSHA: New digital platform to provide subsidy to horticulture farmers

- The Central Government has launched a new digital platform to provide subsidies to horticulture farmers under the Cluster Development Programme (CDP) to promote horticulture crops.

### CDP-SURAKSHA

- Its full name is Cluster Development Programme- System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance.

### 15 products of Uttar Pradesh get Geographical Indicator (GI) tag

- The number of products with G.I tag in Uttar Pradesh has now increased to 69. It has become the state with the highest number of G.I tags in India.
- **Varanasi ranks first** in the production of G.I tagged items. It has 30 certified products.
- This is the maximum number from any one geographical region.
- The new GI-tagged products of UP include the following.
  1. Banaras Thandai
  2. Banaras Tabla
  3. Banaras Shehnai
  4. Banaras Lal Bharwa Mirch
  5. Chiraigaon Karonda (Varanasi)
  6. Banaras Lal Pedas
  7. Banaras Wall Paintings
  8. Jaunpur Imarti
  9. Mathura Sanjhi Craft
  10. Bundelkhand Kathia Wheat
  11. Pilibhit Flute
  12. Sambhal Bone Craft
  13. Chitrakoot Wooden Craft and Balloons
  14. Moonj Craft
  15. Rampur Patchwork

## Matabari Pera and Pachara of Tripura got G.I Tag

- 2 items of Tripura have been given the prestigious Geographical Indication (G.I) Tag.
- The first product is Matabari Pera, a dairy-based sweet item traditionally served as prasadam at the Tripurasundari temple in Gomati district.
- The second product is Pachara, a handwoven cloth used by various communities in the state.
- The G.I. tag will give a boost to the dwindling number of traditional weavers and promote a flourishing art.

## Popular Books

- **Just a Mercenary?: Notes from My Life and Career** by Duvvuri Subbarao  
A memoir by former Reserve Bank of India (RBI) governor Duvvuri Subbarao, which highlights the tension between the RBI and the government.
- **Law and Spirituality: Reconnecting the Bond** – Professor Raman Mittal and Professor Seema Singh  
Vice President Jagdeep Dhankhar released the book of Professor Raman Mittal and Dr Seema Singh at Vice President Enclave on April 12, 2024.
- **The Idea of Democracy** – Sam Pitroda
- **Code Dependent – Living in the Shadow of AI** – Madhumita Murgia  
Madhumita Murgia's outstanding book is among the six books shortlisted for the Women's Prize for Non-Fiction.
- **Knife: Meditations After an Attempted Murder** – Salman Rushdie

## Environment

### Science Based Targets Initiative (SBTi) allows carbon offsetting

- A recent decision by the Science Based Targets Initiative (SBTi) allows carbon offsetting for Scope 3 emissions of business organizations with SBTi-based climate targets.
- Until now, the SBTi has emphasized on broad reductions in greenhouse gas emissions by business houses and has rejected the use of carbon offsets to reduce carbon emissions.
- Recently, the SBTi Board of Trustees allowed companies to use carbon credit technology in its Net Zero Emissions Standard by allowing them to offset emissions from their supply chain.
- Greenhouse emissions from a company's supply chain are known as Scope 3 emissions.

### Science Based Targets Initiative (SBTi)

- It is a corporate climate action organization that enables companies and financial institutions around the world to play their part in tackling the climate crisis.
- The organization certifies whether a company is on track to help limit global warming to less than 1.5C.
- It develops standards, tools and guidance that allow companies to set greenhouse gas emission reduction targets in line with the measures needed to keep global warming below catastrophic levels and reach net-zero emissions by 2050.
- SBTi partners are CDP, the United Nations Global Compact, the We Mean Business Coalition, the World Resources Institute and the World Wide Fund for Nature (WWF).

# 11. INDEX AND REPORTS

## SIPRI Report

- Sweden's Stockholm International Peace Research Institute (SIPRI) released a report on 22 April.
- This report describes the expenditure on armies and weapons in the world.
- According to this report, India was the fourth largest military expenditure country in the world with an expenditure of \$ 83.6 billion in 2023.
- India's military expenditure was 4.2% higher than last year.
- According to this, global military expenditure reached \$ 2,443 billion in 2023. This is 6.8% more than last year.
- America's military expenditure increased by 2.3% to \$ 916 billion in 2023.

startups last year.

- The main reason for the slowdown in startups in India is the lack of investment in start-ups.
- However, according to the report, India ranks first in offshore unicorn establishment i.e. unicorn establishment abroad.
- While there are 67 unicorns in India, 109 unicorns outside India are co-founded by Indians.

## India became the fourth largest exporter in the world in the digital services sector

- The World Trade Organization (WTO) presented the latest Global Trade Outlook and Statistics report on 10 April 2024.
- According to this report, India's digital services exports have increased by 17% and now stand at \$257 billion.
- India has become the world's fourth largest exporter of digital services.
- India's share is more than one-fifth of the international trade in services.
- The US, the UK and Ireland rank first, second and third respectively in digitally delivered services.
- Digitally delivered services include using computer networks to provide professional services for education, gaming, and streaming music and video.
- Global exports of digital services increased to \$4.25 trillion in 2023.
- While there has been a decline in all sectors of global trade in goods in 2023, digital service exports continued to grow.
- According to the report, exports of Europe with a 52.4% share and Asia with a global share of 23.8% grew by 11 percent and 9 percent respectively.
- Trade, professional and technical services contributed the most in 2023 at 41-2%.

## Top 5 countries with highest military expenditure

Rank	Country	Military Expenditure
1.	United States	\$916 billion
2.	China	\$296 billion
3.	Russia	\$109 billion
4.	India	\$83.6 billion
5.	Saudi Arabia	\$75.8 billion

## Hurun Global Unicorn Index 2024

- This report is released by the Hurun Research Institute.
- It includes unlisted companies i.e. startups whose current valuation is more than \$1 billion.
- The US ranks first in the list with 703 unicorns.
- It is followed by China at number two with 340 unicorns.
- India ranks third with 67 unicorns.
- The United Kingdom and the European Union are ranked fourth and fifth respectively in the list.
- According to the Hurun Global Unicorn Index 2024, India recorded a decline in unicorn formation for the first time since 2017.
- According to this index, India had 67 unicorns in 2023, while there were 68 such

## World Trade Organization (WTO)

- The World Trade Organization (WTO) is an international organization.
- It regulates and facilitates global trade between nations.

- Its headquarters is in Geneva, Switzerland.
- It was established in 1995. It replaced the General Agreement on Tariffs and Trade (GATT) established after World War II.
- India is its founding member.
- Its objective is to promote free trade, reduce barriers and promote economic growth and development.

## World Cybercrime Index

- Researchers from Oxford University and UNSW (University of New South Wales) Canberra released the new World Cybercrime Index.
- Russia ranks first in this list. Russia's World Cybercrime Index score is 58.39 out of 100.
- After this, Ukraine, China, America, Nigeria and Romania are at second, third, fourth, fifth and sixth place respectively.
- North Korea is at seventh, Britain at eighth and Brazil at ninth place.
- India is at 10th place in this ranking. India's WCI score is 6.13.
- This index focuses on five main cyber crime categories:
  1. Extortion including ransomware
  2. Hacking
  3. Data theft including credit card
  4. Advance fee fraud
  5. Money laundering
- In this, **most of the frauds are done by asking people for advance fee fraud or advance payment.**

## 'State of the Climate in Asia 2023' Report

- Recently, the State of the Climate in Asia 2023 Report was released by the World Meteorological Organization (WMO).
- According to this report, in 2023, Asia was the most disaster-affected region in the world due to weather, climate and water related issues.
- It highlighted the higher incidence of key climate change indicators such as surface temperatures, glacier shrinkage and sea level rise, which will have implications for the societies, economies and ecosystems of the region.
- As Asia is warming faster than the global average, it is experiencing more extreme

weather, climate and water-related disasters than any other region around the world.

- In 2023, 79 water-related meteorological disasters were recorded, affecting more than 9 million people across Asia and causing more than 2,000 deaths.
- 80% of these events were floods and storms.
- In addition, Asia is experiencing extreme heat.
- The Indian subcontinent was hit by 6 tropical cyclones in 2023 that originated in the North Indian Ocean. Out of the six cyclones, four – Mocha, Hamoon, Midhili and Michaung – formed over the Bay of Bengal and two – Biparjoy and Tej – formed over the Arabian Sea.
- Extremely severe cyclonic storm Mocha wreaked havoc on the Rhine coast of Myanmar on 14 May 2023, killing 156 people.
- According to the World Meteorological Organization (WMO), **India is one of the countries most affected by extreme heat and floods in 2023.**

## United Nations Population Fund (UNFPA) report 2024

- The United Nations Population Fund (UNFPA) released the State of the World's Population report 2024 on 16 April 2024.
- In this report, the population of India has been estimated to reach 144 crores.
- India's population is estimated to double in 77 years.
- India ranks first in the world in terms of population. It is followed by China with 142.5 crores.
- An estimated 24% of India's population is in the age group of 0-14 years, while 17% of the population is within the age group of 10-19.
- The population in the age group of 10-24 is 26%, while that in the age group of 15-64 is 68%.
- 7% of India's population is 65 years and above, with the life expectancy of men being 71 years and that of women being 74 years.
- China ranks second in terms of population with 142.5 crores.

## India's passport is the second cheapest passport in the world.

- This report has been released by Australian firm 'Compare the Market' in terms of the cost of passports.
- It studied the cost of obtaining passports in different countries, their cost-effectiveness per year of validity, and their value in terms of the number of countries it provides visa-free access to.
- The UAE passport is the cheapest in the world in terms of cost.
- The cost of a passport for 5 years validity in the United Arab Emirates (UAE) is US\$17.70.
- UAE passports are the cheapest in terms of cost of acquisition and number of countries for visa-free access.
- The most expensive passport in the world is that of Mexico, where a 10-year passport costs US\$231.05.
- India's passport is the second cheapest in the overall list, costing US\$18.07 for 10 years validity. However, Indians can travel visa-free to only 62 countries with an Indian passport.
- **India's passport is the cheapest in terms of cost per year of validity** (at a cost of US\$1.81 per year).
- South Africa and Kenya were second and third in terms of cost per year of validity at US\$3.05 and US\$3.09 respectively.

## 8 Indians included in Time's 100 Most Influential People List 2024

- Time magazine's prestigious list was released on 17 April 2024.
- The list features leaders from various fields including finance, entertainment, technology, activism and education.
- The overall list has four categories: leaders, heroes, artists and thinkers.
- 8 Indians have been included in the 100 most influential people of 2024, which are as follows-
  1. Alia Bhatt (actress)
  2. Ajay Banga (President of the World Bank)
  3. Sakshi Malik (Olympic medalist player)
  4. Dev Patel (actor of Indian origin)
  5. Priyamvada Natarajan (Professor of Astrophysics at Yale University)
  6. Satya Nadella (CEO of Microsoft)
  7. Jigar Shah (Director of the Loan Program

- Office of the US Department of Energy)
8. Asma Khan (Restaurant owner of Indian origin)
- British chef of Indian origin Asma Aan runs a restaurant named 'Darjeeling Express' in Soho, London. Priyamvada Natarajan is an Astrophysicist and Professor of Astrophysics. Her research is based on the study of supermassive black holes.

## 7 Indians included in WEF's Young Global Leaders Class of 2024

- 7 Indians have been included in the World Economic Forum (WEF)'s **'Young Global Leaders Community: The Class of 2024'**.
- On April 4, 2024, the WEF announced the inclusion of 90 changemakers in its Young Global Leaders Community, all under the age of 40 and representing different sections of society.
- WEF's Young Global Leaders initiative was launched in 2005.
- The group includes individuals from various fields who are shaping the future and accelerating positive change through their groundbreaking work.
  1. Priya Agarwal Hebbar (Non-Executive Director of Vedanta Limited)
  2. Bhumi Pednekar (Actress)
  3. Adwaita Nayar (CEO of Nykaa Fashion)
  4. Arjun Bharatia (Joint Managing Director of Jubilant Group)
  5. Sharad Vivek Sagar (Founder and CEO, Dexterity Global)
  6. Richa Bajpai (Founder and CEO, Campus Fund)
  7. Shashwat Goenka (Vice Chairman, RP-Sanjiv Goenka Group)

## Forbes' 2024 billionaires list released

- Forbes released the 38th annual list of the world's billionaires for 2024.
- There are 141 more billionaires in the world than last year, whose total number is 2,781.
- Their combined wealth is \$14.2 trillion, up from \$2 trillion in 2023.
- The top 20 on the list have gained the most, with their combined wealth increasing by \$700 billion since 2023.
- The US has a record 813 billionaires, the most in the world.
- China has 473 billionaires and India has 200.

List of Top 10 Billionaires			
Rank	Name	Net Worth (US\$ Billion)	Company
1.	Bernard Arnault & Family	\$233	LVMH
2.	Elon Musk	\$195	Tesla, SpaceX
3.	Jeff Bezos	\$194	Amazon
4.	Mark Zuckerberg	\$177	Facebook
5.	Larry Ellison	\$141	Oracle
6.	Warren Buffett	\$133	Berkshire Hathaway
7.	Bill Gates	\$128	Microsoft
8.	Steve Ballmer	\$121	Microsoft
9.	Mukesh Ambani	\$116	Reliance
10.	Larry Page	\$114	Google

### QS World University Rankings 2024

- The rankings were released by London-based higher education analytics firm, Quacquarelli Symonds (QS).
- A total of 69 Indian universities have found a place in the QS World University Rankings on the basis of Subject, which is 19.4% up from the 355 entries received by 66 universities last year.
- In terms of number of universities (69), India is the second most represented country in Asia after China with 101 institutions.
- IIT Bombay secured 45th rank in Engineering and Technology in this ranking.
- Indian Institute of Management (IIM) Ahmedabad is among the top 25 institutes for business and management studies.
- Massachusetts Institute of Technology (MIT) is ranked first in this ranking 2024.
- Jawaharlal Nehru University (JNU) is the highest ranked university in India for Development Studies.
- JNU has been ranked 20th in the world under the subject of Development Studies.
- Apart from this, this university is also the top ranked university in the country in the subjects of Geography, History, Modern Languages, Politics and International Relations, Anthropology, English Language and Literature and Linguistics.

### Food Waste Index Report 2024

- The Food Waste Index Report 2024 was jointly released by the United Nations

Environment Programme (UNEP) and WRAP (Waste and Resource Action Programme), a UK-based non-profit.

- The Food Waste Index tracks food and non-food parts wasted at the retail and consumer (household and food service) level at the global and national level.
- The report was released ahead of International Zero Waste Day (March 30).
- In 2022, households around the world wasted more than a billion meals per day, while 783 million people struggled with hunger and a third of the population faced food insecurity.
- In 2022, 1.05 billion tonnes of food waste was generated (including non-edible foods), which was 132 kg per capita and about a fifth of the total food available for consumers.

### India ranks second after China in terms of hepatitis B and C

- The World Health Organization (WHO) 'Global Hepatitis Report 2024' was released on 9 April 2024.
- According to this report, in 2022, 254 million people were infected with hepatitis B globally, and 50 million people were infected with hepatitis C.
- According to this, India had the second highest number of hepatitis B and C cases after China with 35 million infections (29.8 million hepatitis B cases and 5.5 million hepatitis C infections) in 2022.
- Hepatitis is an inflammation of the liver that can cause a variety of health problems and can be fatal.

- China has recorded 83 million cases of hepatitis B and C, which is 27.5% of the total cases.
- India had 11.6% of the total cases globally.
- According to this report, the number of people who lose their lives due to viral hepatitis is increasing.
- This disease is the second leading infectious cause of death globally, causing 1.3 million deaths per year which is equivalent to tuberculosis.

### Plastic Overshoot Day Report 2024

- Plastic Overshoot Day Report 2024 was released by Swiss non-profit company Earth Action.
- According to this report, **India is among the 12 countries responsible for 60% of the mismanaged plastic waste generated in the world.**
- Twelve countries - China, India, Russia, Brazil, Mexico, Vietnam, Iran, Indonesia, Egypt, Pakistan, United States and Turkey are responsible for 60% of the world's mismanaged plastic waste.
- Global plastic waste generation has increased by 7.11% since 2021.
- This year 220 million tonnes (estimate) of plastic waste has been generated in the world, out of which 70 million tonnes will pollute the environment.
- **India has been classified as a 'low waste producer'** polluter in the report due to low per capita plastic waste generation in India (8 kg per person per year).
- **Belgium is the largest producer of plastic waste.** The annual waste generation per capita is 147.7 kg.
- **Oman ranks first in terms of mismanaged plastic waste.**

### Delhi Airport named among top 10 busiest airports in the world for 2023

- The list of top 10 busiest airports in the world was released by Airports Council International (ACI).
- **Hartsfield-Jackson Atlanta International Airport ranks first in this list.**
- Hartsfield-Jackson Atlanta International Airport handled 10.46 crore passengers in 2023.
- Dubai and Dallas airports are in second and third place respectively.
- **Delhi's Indira Gandhi International Airport is at tenth place in this list.**

- Delhi Airport handled more than 7.22 crore passengers in 2023.
- The global total passenger forecast for 2023 was 8.5 billion (850 crores). This is 27.2% more than 2022.

### About 23 lakh hectares of forest area destroyed in India - Global Forest Watch

- The data of the monitoring project of the open-source web application 'Global Forest Watch' (GFW) was released in April 2024. According to the latest data of the Global Forest Watch monitoring project, 2.33 million hectares of tree area has been destroyed in India since the year 2000.
- This is equivalent to a 6 percent reduction in tree cover during this period.
- During 2002-2023, 4,14,000 hectares (4.1 percent) of humid primary forests were lost in the country, which is 18% of the total forest cover loss during this period.
- During 2013-2023, 95% of tree cover loss in India has occurred in natural forests.
- The maximum loss of 1,89,000 hectares occurred in 2017.
- Before that, 1,75,000 hectares were lost in 2016 and 1,44,000 hectares in 2023, which is the highest in the last 6 years.
- During 2001-2023, 60% of the total forest cover loss occurred in five states (Assam, Mizoram, Arunachal Pradesh, Nagaland and Manipur).
- Assam suffered the highest loss of trees at 3,24,000 hectares.
- This was followed by Mizoram at 3,12,000 hectares, Arunachal Pradesh at 2,62,000 hectares, Nagaland at 2,59,000 hectares and Manipur at 2,40,000 hectares. During 2002-2022, 35,900 hectares (1.6%) of trees were lost due to fire in India.
- The highest loss of trees due to fire (3,000 hectares) occurred in 2008.
- Odisha had the highest rate of tree loss due to forest fires in the year 2002-2022 (an average of 238 per year)

### Karnataka, Gujarat top the country in adopting clean energy

- A joint report by research organization 'Institute for Energy Economics and Financial Analysis' (IEEFA) and clean energy think tank 'Ember' was released on 23 April 2024.
- 21 states of the country have been included in its evaluation.

- This report released on clean energy of the country states that Karnataka and Gujarat are at the forefront in terms of adopting clean energy in the country.
- Karnataka meets 37 percent of its electricity demand and Gujarat 17 percent from green energy.
- These states have effectively integrated renewable energy sources in their power sectors, making strong progress in reducing carbon emissions.
- In contrast, the report also says that there is a need for improvement in states like Jharkhand, Bihar, West Bengal and Uttar Pradesh.

### Expanding Glacial Lakes in the Indian Himalayas: ISRO

- The Indian Space Research Organization (ISRO) published a report titled 'Satellite Insights: Expanding Glacial Lakes in the Indian Himalayas' on April 22, 2024.
- The report states that long-term satellite imagery, covering the catchment areas of the Indian Himalayan river valleys, from 1984 to 2023 shows that there have been significant changes in glacial lakes.
- Of the 2,431 glacial lakes larger than 10 hectares in the Himalayas identified in 2016-17, 676 glacial lakes have expanded significantly since 1984. Of these, 130 lakes are located in India.
- Of these, 65 lakes are located in Indus, 7 in Ganga and 58 in Brahmaputra river basins.
- Out of the expanded lakes, 601 (89%) lakes have more than doubled in size.
- 10 lakes have expanded by 1.5 to 2 times.
- 65 lakes have expanded by 1.5 times.
- Elevation-based analysis shows that 314 lakes are located in the range of 4,000 to 5,000 metres and 296 lakes are above 5,000 metres.
- Out of the 676 extended lakes, the majority (307) are moraine-dammed lakes, whereas erosion-formed glacial lakes are 265 and ice-dammed glacial lakes are 8. Remaining 96 are in the other category. The size of Ghepan Ghat glacial lake (Indus river basin) located at an altitude of 4,068 m in Himachal Pradesh has increased from 36.49 to 101.30 hectares (increase of 178%) between 1989-2022.
- This rate of increase is about 1.96 hectares per year.

### India tops the list of doping offenders

- The test data for the year 2022 was released by the World Anti-Doping Agency (WADA) in April 2024.
- In this 'World Anti-Doping Agency's Anti-Doping Report, 2022' released by 'WADA', India ranks first among the countries with the highest percentage of doping offenders.
- The report shows that out of 4,064 samples collected from Indian athletes (including urine, blood and athlete biological passport), samples of 127 individuals were positive for banned substances, which is 3.26% of the sample tested.
- The number of doping violations in India is higher than major countries like Russia (85), USA (84), Italy (73) and France (72).
- According to WADA, 6.4% more samples were tested in 2022 as compared to 2021.
- The percentage of adverse analytical findings also increased from 0.65% in 2021 to 0.77% in 2022.
- The maximum number of samples collected by WADA from athletes were from China at 19,228, of which only 33 (0.2%) tested positive.
- Germany stood second in terms of submitting maximum samples with 13,653 samples, of which only 42 samples tested positive.
- The third highest number of samples (10,186) were from Russian athletes, with only 85 samples testing positive.

### Global life expectancy increased by 6.2 years: Lancet

- The latest study report on global life expectancy trends published by the Lancet journal in April 2024 shows an overall increase of 6.2 years in life expectancy worldwide according to Lancet's 1990-2021 study findings.
- Similarly, life expectancy in India has increased by about 8 years in the last three decades.
- This progress in 'life expectancy' is due to a reduction in deaths from major diseases such as diarrhea, lower respiratory infections, stroke and ischemic heart disease (heart attacks caused by shrinking arteries).
- The largest increase in life expectancy was seen in eastern sub-Saharan Africa, where

- it increased by 10.7 years between 1990-2021.
- Overall life expectancy in Southeast Asia, East Asia and Oceania increased by 8.3 years, the highest worldwide.
  - In the South Asia region, Bhutan showed the highest increase in life expectancy (13.6 years).
  - Also, Bangladesh (13.3 years), Nepal (10.4 years) and Pakistan (2.5 years) follow.
  - COVID-19 reduced life expectancy by 1.6 years in 2019-2021, otherwise further increase was likely.
  - In 2020, deaths worldwide increased by 10.8 percent compared to 2019 and in 2021 deaths increased by 7.5 percent compared to 2020.
  - Mortality rate followed a similar trend, increasing by 8.1 per cent and an additional 5.2 percent increase in 2020.
  - Southeast Asia, East Asia and Oceania had the lowest rates of about 23 deaths per lakh population. Deaths of children under five years of age were concentrated in western and eastern sub-Saharan Africa.

# 12. IMPORTANT DAYS & WEEKS

## Reserve Bank of India Foundation Day

- The Foundation Day of the Reserve Bank of India (RBI) is celebrated every year on 1 April.
- 1 April 2024 was the 90th Foundation Day of RBI.

## Reserve Bank of India

- Established on 1 April 1935 under the Reserve Bank of India Act, 1934.
- Shaktikanta Das is the current Governor of the Reserve Bank of India.

## 88th Odisha Day

- Odisha Day / Utkal Divasis celebrated every year on 1 April.
- Odisha was formed by separating it from the United Bengal Province on the basis of language.
- On 1 April, 1936, the Orissa province was formed from Bihar.

## World Autism Awareness Day

- It is celebrated every year on 2 April.
- The purpose of this day is to create awareness about autism among people and to make the lives of people suffering from it easier.
- Theme of the year 2024 is 'Empowering Autistic Voices'.

## International Mine Awareness Day

- It is celebrated every year on 4 April.
- This day is celebrated with the aim of providing protection from the pollution caused by landmines and spreading awareness about health and life-related problems.
- The United Nations General Assembly had announced to celebrate it as a day in the year 2005.
- This day was first celebrated on 4 April 2006.
- The theme of International Mine Awareness Day 2024 is 'Saving Life, Building Peace'.

## National Maritime Day

- It is celebrated every year on 5 April.
- The purpose of celebrating this day is to

make people aware of the activities of the Indian shipping industry and its role in the country's economy.

- On April 5, 1919, the first Indian ship had set out on a journey from Mumbai to Britain.
- The first steam ship of Scindia Steam Navigation Company Limited 'SS Loyalty' set sail on its maiden voyage from Mumbai to London.

## National Handmade Day 2024

- National Handmade Day is celebrated every year on the first Saturday of April. This year it was celebrated on 6 April.
- This day is celebrated to honour and recognise the skill and dedication of people who make handmade goods.
- The theme of National Handmade Day 2024 is 'Buy a Handmade Product'.

## International Sports Day for Development and Peace

- It is celebrated every year on 6 April.
- This day is celebrated to underline the importance of sports in our physical and mental development and to bring awareness about sports.
- The United Nations General Assembly first announced the celebration of this day in August 2013.
- The first modern Olympic Games were held on 6 April in Athens (Greece) in 1896. That is why International Sports Day is celebrated on 6 April.

## World Health Day

- It is celebrated every year on 7 April.
- Its objective is to spread information and awareness about health among people.
- The main theme of the year 2024 is 'My Health, My Right'.
- Celebrated on the anniversary of the establishment of WHO.

## Hindu New Year ('Vikram Samvat 2081') / Gudi Padwa / Ugadi / Cheti Chand

- Chaitra Shukla Pratipada is celebrated as the Hindu New Year. There is a mythological belief that on this day Brahmaji created the universe.

- On this day, Gudi Padwa, Ugadi and Chaitra Navratri are also celebrated in different states of the country.
- It was started by a ruler named Vikramaditya, so it is also called Vikram Samvat.

## Types of New Year in India

### Gudi Padwa - Marathi New Year

- This spring festival marks the beginning of the new year for Marathi and Konkani Hindus.
- This festival is celebrated on the first day of the month of Chaitra.
- This festival is popular in Maharashtra, Madhya Pradesh, Goa and the Union Territories of Dadra and Nagar Haveli and Daman and Diu.

### Ugadi - Telugu New Year

- According to the Hindu calendar system, Ugadi is celebrated on the first day of Chaitra month.
- This festival is popular in the states of Telangana, Andhra Pradesh and Karnataka.

### Navreh - Kashmiri New Year

- Navreh is celebrated as the New Year by the Hindus of Kashmir.
- This festival is dedicated to Goddess Sharika.

### Cheti Chand

- It is the main festival of the Sindhi community.
- It is celebrated as the birthday of Varun Dev (Water God) Sai Jhulelal.
- Cheti Chand usually falls on the first day of Chaitra Shukla Paksha, i.e. at the beginning of the month of Chaitra (Sindhi month) according to the Hindu calendar. (It can sometimes fall on the second day as well.)

## World Homeopathic Day

- It is celebrated every year on April 10.
- Its objective is to create awareness about the homeopathic system of medicine.
- This day is celebrated on the occasion of the birthday of Dr. Christian Friedrich Samuel Hahnemann, the founder of homeopathy.
- Hahnemann was born in Germany on 10 April 1755.
- The main theme of the year 2024 is - 'Homeoparivar: One Health, One Family'.

## Mahatma Jyotiba Phule Jayanti

- It is celebrated every year on 11 April.
- Jyotiba Phule was a great Indian thinker and social reformer of the 19th century.

- His full name was Jyotirao Govindrao Phule.
- He was born on April 11, 1827 in Pune.
- Mahatma Phule opposed the evils of untouchability, gender discrimination etc. prevalent in Indian society.
- He was against child marriage, a supporter of widow remarriage and women's education.
- He and his wife Savitribai Phule were pioneers of women's education in India.
- He opened the country's first girls' school in Bhidewada, Pune, Maharashtra in 1848.
- In the year 1873, he formed the 'Satyashodhak Samaj' to provide justice to the Dalits and the underprivileged.

## National Safe Motherhood Day

- It is celebrated every year on 11 April.
- Its purpose is to spread awareness about maternal health of pregnant and lactating women.
- India is the first country in the world to celebrate this day.
- Theme of the year 2024 is 'Equity in Maternal Healthcare: Leaving No Mother Behind'.

## International Human Space Flight Day

- It is celebrated every year on 12 April.
- This day is celebrated at the international level to commemorate the beginning of the space age for humanity.
- The United Nations Office for Outer Space Affairs (UNOOSA) promotes international cooperation for the peaceful use of outer space.
- This day is celebrated in memory of the first human space flight by Soviet citizen Yuri Gagarin.
- Yuri Gagarin took the first human space flight on 12 April 1961. He took this flight in a spacecraft named Vostok.

## Vaisakhi

- It is celebrated every year on 13 or 14 April.
- Vaisakhi is celebrated as the foundation day of the Khalsa sect and it is also a festival related to agriculture.
- Vaisakhi is also known as Visakhi or Baisakhi.
- According to the solar calendar, the Sikh community celebrates it as the New Year.
- Vaisakhi is called 'Bihu' in Assam, 'Naba Barsha' in Bengal, 'Pooram Vishu' in Kerala.

## Ambedkar Jayanti

- It is celebrated every year on 14 April.
- Dr. Bhimrao Ramji Ambedkar fought for equality throughout his life, so his birthday is celebrated as 'Equality Day' in India.
- He was born on April 14, 1891 in Mhow, Madhya Pradesh.
- Started the newspaper 'Bahishkrit Bharat' on 03 April 1927 to solve the problems of Dalits.
- He participated in all the three Round Table Conferences organized by the British government.
- In 1932, Dr. Ambedkar signed the Poona Pact with Mahatma Gandhi for the upliftment of Dalits.
- On August 15, 1936, he formed the 'Independent Labour Party' to protect the interests of the Dalits.
- In 1946, he was elected to the Constituent Assembly from Jaisar Kulna in Bengal, but after Jaisar Kulna joined Pakistan, he was elected to the Constituent Assembly from Bombay.
- He was the chairman of the Drafting Committee and is also called the 'Father of the Indian Constitution'.
- Dr. Ambedkar became the Law Minister in the first cabinet of independent India in 1947.
- He was also awarded India's highest civilian honor Bharat Ratna in the year 1990.

## World Chagas Disease Day

- It is celebrated every year on April 14 by the World Health Organization (WHO).
- Its main objective is to spread awareness regarding Chagas disease.
- Theme of this year 2024: Tackling Chagas disease: detect early and care for life.

## World Quantum Day 2024

- It is celebrated every year on 14 April.
- This day helps us to understand nature at its most fundamental level, which has helped us to develop technologies.

## Himachal Day

- It is celebrated every year on 15 April.
- On 15 April 1948, Himachal was made a Union Territory by merging 30 princely states.
- Under the 'Himachal Pradesh State Act-1971', it was given the status of the 18th state of India.

- It became a full state on 25 January, 1971. Foundation Day of Himachal Pradesh is celebrated every year on 25 January.

## World Art Day

- It is celebrated every year on 15 April.
- Its purpose is to spread awareness among people towards fine arts conservation.
- This day was declared by the International Association of Art (IAA).

## Fine Arts

- Songs, music, dance, drama, and various types of paintings in which we express our emotions are called fine arts.

## World Hemophilia Day

- It is celebrated every year on 17 April by the World Federation of Hemophilia.
- Its purpose is to make people aware about hemophilia and other hereditary bleeding disorders.
- The theme for 2024 is "Equitable access for all: Recognizing all Bleeding Disorders".

## World Heritage Day

- It is celebrated every year on 18 April.
- Its purpose is to promote art, literature and culture along with heritage sites in the world.
- The theme for 2024 is "Discover and experience diversity".
- India currently has 42 UNESCO World Heritage Sites.
- Shanti Niketan (West Bengal) (2023) and Hoysala Group of Temples (Karnataka) (2023) are the newest World Heritage Sites in India.
- World Heritage Sites of Rajasthan
- Keoladeo National Park (1985)
- Jantar Mantar (2010)
- 6 Hill Forts of Rajasthan (2013)
  1. Gagron Fort
  2. Amer Fort
  3. Chittorgarh Fort
  4. Kumbhalgarh Fort
  5. Ranthambore Fort
  6. Jaisalmer Fort
- Jaipur's Parakota (2019)
- Note: Jaipur is the second city in India after Ahmedabad, which has been given the World Heritage status by UNESCO.

## World Liver Day

- It is celebrated every year on 19 April.
- Its purpose is to spread awareness about liver related diseases.

## National Civil Service Day

- This day is celebrated every year on 21 April in India.
- On this day, selected civil servants are awarded the Prime Minister's Award for Excellence in Public Administration for their contribution to the service of the nation.
- Sardar Vallabhbhai Patel, the first Home Minister of independent India, addressed the first batch of civil servants on 21 April 1947 at Metcalfe House in Delhi.
- Sardar Patel called civil servants the 'steel frame of India'.
- This day was first celebrated on 21 April 2006 at Vigyan Bhavan in New Delhi.
- Satyendra Nath Tagore was the first Indian to be selected in the civil service during the British period.
- Civil service in India was started by Warren Hastings.
- Charles Cornwallis is called the 'Father of Indian Civil Service' for his contribution in the reform and modernization of civil services in the country.

## World Earth Day

- It is celebrated every year on 22 April.
- Its purpose is to make people aware of the importance of the earth, to promote environmental conservation and sustainability.
- The theme for the year 2024 is 'Planet versus Plastic'.
- In the year 2009, the United Nations declared April 22 as 'International Mother Earth Day'.
- This day was first celebrated in the year 1970.

## World Book and Copyright Day

- It is celebrated every year on 23 April.
- This day is celebrated to promote the love of reading, writing books, translation, publishing and copyright.
- UNESCO designates a World Book Capital every year.
- This book capital lasts for a period of 1 year starting from 23 April.
- This year Strasbourg, France has been

designated as the 'World Book Capital 2024'.

- Its main theme in the year 2024 is 'Read Your Way'.

## United Nations English and Spanish Language Day

- It is celebrated every year on 23 April.
- The purpose of celebrating Language Day is to promote multilingualism and cultural diversity.
- The famous English writer William Shakespeare was born and died on 23 April. Therefore, the United Nations Educational, Scientific and Cultural Organization (UNESCO) chose 23 April as English Language Day.

## National Panchayati Raj Day

- It is celebrated every year on 24 April.
- Its purpose is to raise awareness about the importance of local governance in promoting social justice and inclusive development.
- Panchayati Raj institutions were given constitutional status under the 73rd Constitutional Amendment Act, 1992.
- This Act came into force on 24 April 1993, this day is celebrated to mark this achievement.
- The first National Panchayati Raj Day was celebrated on 24 April 2010.

## World Malaria Day

- It is celebrated every year on 25 April.
- Its purpose is to raise awareness about malaria and encourage people to take preventive measures.
- The theme for the year 2024 is 'Accelerating the fight against malaria for a more equitable world'.

## World Intellectual Property Day 2022

- It is celebrated every year on 26 April.
- Its purpose is to promote innovation and creativity and spread awareness about intellectual property rights.
- Theme for the year 2024 is 'IP and the SDGs: Building Our Common Future with Innovation and Creativity'.

## World Immunization Week 2024: 24-30 April

- World Immunization Week is celebrated every year in the last week of April.

- Its main objective is to promote the use of vaccines to protect people from diseases.
- The theme of World Immunization Week 2024 is 'Save lives through vaccination as much as humanly possible'.
- The Government of India launched Mission Indradhanush to increase the coverage of vaccination in India.

## International Dance Day 2024

- It is celebrated every year on 29 April.
- It encourages and educates people around the world about different dance styles.
- It is celebrated to commemorate the birth anniversary of Jean-Georges Noverre, the Creator/Father of modern ballet.
- Jean-Georges Noverre was a French dancer.

# 13. Yojana - Kurukshetra [Gist]

## Yojana

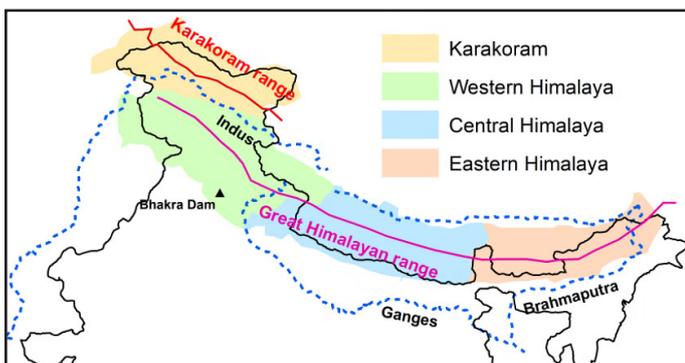
### GEOLOGICAL ECOSYSTEM

India is the fifth largest economy in the world and has rich geographical and geological diversity, ranging from the mighty Himalayas which are one of the highest mountain ranges in the world to low-lying coastal plains overseeing the vast Indian Ocean. Its geological terrain has rocks, ranging from the Achaean age, formed billions of years ago, at the beginning of the formation of Earth, to riverine alluvium deposited just a few thousand years back.

### Geological Divisions of India

#### 1. Himalayas

- **About:** Highest mountain range in the world, separates the Indian landmass from the Tibetan Plateau.
- **Formation:** Due to the collision of the Indian plate with the Eurasian plate, resulting in the formation of a large fold mountain system, running along the northern fringes of the Indian sub-continent.

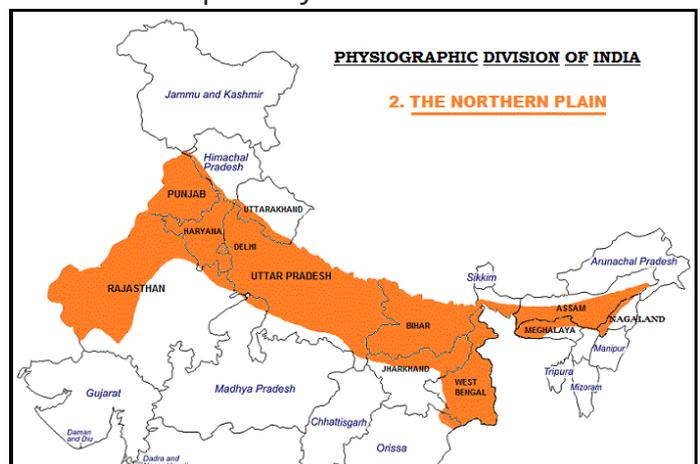


- **Extent:** Runs from west-northwest to east-southeast direction in the form of an arc for about 2,400 km, extending across five southeast Asian countries.
- **Width:** It varies from 350 km in the west to 150 km in the east.
- **Has 4 parallel mountain ranges:** The Shivalik Hills, the Lower Himalayan Range or Himachal, the Great Himalayan Range or Himadri, and the Tibetan Himalayas from south to north.
- **Major peaks:** Mount Everest, Kanchenjunga, Nanga Parbat, etc.

- **Major glaciers:** Gangotri Glacier and Satopanth Glacier.
- **Significance:**
  - ♦ Himalayan glaciers are the source of fresh water for the rivers of northern India.
  - ♦ Hot springs and geothermal anomalies have been identified indicating the presence of subsurface heat sources that could be harnessed for power generation.

#### 2. Northern Plains/ Great Plains of India

- **About:** One of the most extensive alluvial tracts in the world.
- **Extent:** It runs for roughly 2400 km from west to east and stretches 240 to 320 km from north to south.
- **Formation:** Due to sediments brought by rivers, originating from uplifting Himalayas, and deposited in a foreland basin.
- **General slope: Northeast to southwest and south**
- **Divisions of Northern Plains:**
  - ♦ **Bhabar:** As the rivers from the Himalayas descend the hills, their velocity decreases and they dump their denser and coarser sediments along the foothills in a narrow, porous, thin strip around 8 - 16 km wide. The streams go underground in the Bhabar belt because of its porosity.



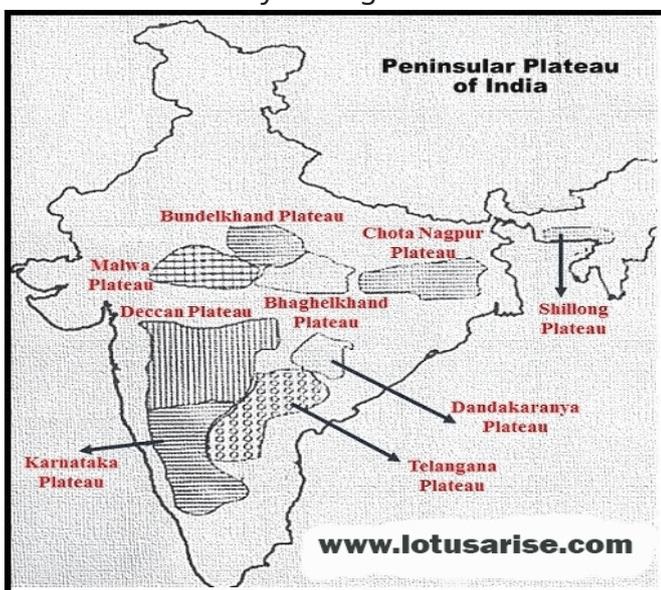
- **Terai:** Here streams that go underground in the Bhabar belt resurfaces. It is a

poorly drained, wet, marshy, and densely forested narrow track, running parallel to Bhabar stretching for roughly 15-30 km. It houses some of the famous national parks such as Jim Corbett National Park in Uttarakhand and Kaziranga National Park in Assam.

- **Bhangar:** Older alluvium that forms a terrace above the floodplain & is frequently covered in calcareous stone-like pebbles known as 'Kankar'.
- **Khadar:** The flood plains along the riverbanks which is made up of newer alluvium, replenished every year.
- **Significance:** They provide fertile alluvial soil which supports agricultural activities and sand is used as construction material for building purposes.
- **Sundarbans:** The rivers of northern plains are laden with sediment deposits, their sediment load at the mouth forms the largest delta in the world marked by a complex network of tidal waterways, mudflats, and small islands of salt-tolerant mangrove forests and presents an excellent example of ongoing ecological processes.

### 3. Peninsular Plateau

- **About:** Largest physiographic entity of the Indian landmass which has a table-land type of topography.
- **Average elevation:** ~ 900-1200 m above mean sea level, dissected by numerous rivers, forming broad valleys.
- **Appearance:** It presents a rugged terrain with residual hills, formed by weathering of mountain chains formed millions and billions of years ago.



- **Extent:** From the Aravalli Range in the west to the Chota Nagpur Plateau in the east.
- **Major mountain ranges:** Central Indian ranges such as Vindhya, Satpura, Mahadeo, Maikal and Sarguja ranges as well as the Western and Eastern Ghats.
- **Rock composition:** Hard crystalline rocks of igneous and metamorphic origin.
- **Major minerals found:** Iron, bauxite, mica, gold, copper, manganese, etc.
- **Major mines:** Kolar, Hutti, Bailadila, Singhbhum, Korba, Malanjkhand, etc.
- **Significance:**
  - ◆ Most of the Gondwana coal deposits of India are found here.
  - ◆ Has abundant reserves of limestone which is a key raw material used in the cement industry.
  - ◆ The Deccan basalts of the peninsular plateau are being quarried at many places to be used as road metal.
  - ◆ It has deposits of various other mineral commodities such as chromite, lead, zinc, gypsum, etc.
  - ◆ Covered with fertile black soil which is extremely useful for growing cotton.
  - ◆ Some low-hilly regions are suitable for the cultivation of crops like tea, coffee, rubber, etc.
  - ◆ The beach sands of coastal areas are rich in thorium-bearing monazites which have the potential to power India's nuclear projects.



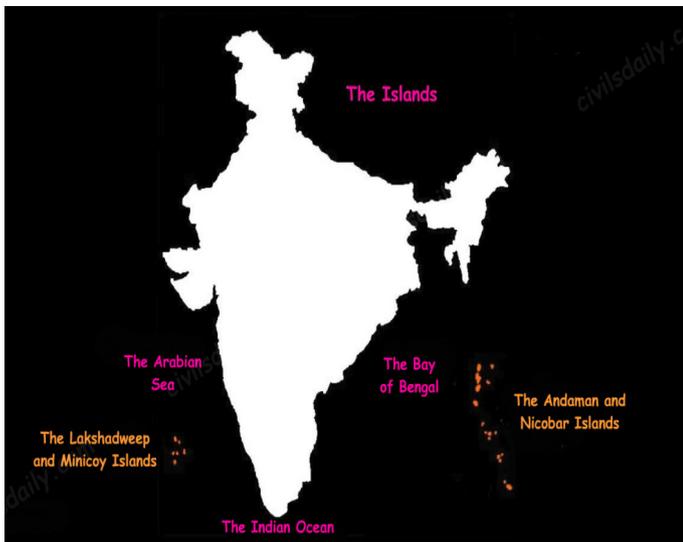
### 4. Thar Desert/ Great Indian Desert

- **About:** A vast arid region, located primarily in the northwestern part of the Indian subcontinent which consists of sand dunes, rocky terrain, salt flats, and sparse vegetation.

- **'Barkhan':** Sand dunes of Thar that can reach heights of up to 150 m and constantly shift with the wind.
- **Nullahs:** Dry riverbeds which occasionally fill with water during the monsoon season.
- **Significance:**
  - ◆ Despite its harsh conditions, it supports a unique ecosystem with specialised plant and animal species adapted to desert life.
  - ◆ The region is rich in oil reserves and is home to one of the largest onshore oil fields in India in Barmer Basin.
  - ◆ The region also has one of the largest salt marshes in the world called the 'Great Rann of Kutch (a major salt-producing district).

## 5. Islands

- **Andaman and Nicobar Islands**
  - ◆ **About:** They form an archipelago, consisting of around 572 islands, out of which only about 37 are inhabited.



- ◆ **Features:** Pristine beaches, lush tropical forests, and diverse marine life.
- ◆ **Nature:** Mainly volcanic in origin, formed by the eruption of lava due to plate movements.
- ◆ **Volcano:** Barren Island in the Andaman Sea is the only active volcano in India.
- ◆ **Terrain:** Episodic lava flows are responsible for the highly rugged terrain of the island.

## Lakshadweep

- ◆ **Location:** West coast of India, & is an archipelago of 36 islands.
- ◆ **Nature:** These are mainly coral islands with unique marine flora and fauna. The Andaman & Nicobar and Lakshadweep islands are also tourist hotspots of India, fostering the tourism industry in India.

## FROM PEAKS TO VALLEYS: A HOLISTIC EXPLORATION OF THE WESTERN GHATS

The Western Ghats are recognised as a global biodiversity hotspot and often referred to as the Great Escarpment of India, also holding the prestigious designation of a UNESCO World Heritage Site. The Western Ghats, also known as the Sahyadri Mountain Range, stretch from a latitudinal extent of 8°-22°N from the river Tapti in the north to Kanyakumari in the South. It encompasses regions in six States: Gujarat, Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu, and one Union Territory (Dadra & Nagar Haveli).

### Division of Western Ghats

- **Northern Ghats:** Extend from Gujarat to Maharashtra and represents the lowest and least rugged section of the Western Ghats.
- **Central Ghats:** Extend from Karnataka to Kerala and represent the highest and most rugged section of the Western Ghats.
- **Southern Ghats:** Extends from Kerala to Tamil Nadu and represents the most dissected section of the Western Ghats.

### Various names of Western Ghats

- **Sahyadri:** Meaning- 'The abode of Sahya' (a mythological rain serpent) which stretches from Gujarat in the north to Maharashtra and Karnataka in the south.
- **Nilgiri Hills:** Signifying 'blue mountains, this name is attributed to the southernmost section of the Western Ghats, located at the junction of Karnataka, Kerala, and Tamil Nadu.
- **Sahya Parvatam:** In Malayalam, this term translates to 'Sahya Mountains' and is commonly used in Kerala, particularly in the southern reaches of the range.
- **Cardamom Hills:** Located on the Kerala-Tamil Nadu border, these hills derive their name from the cardamom plant, a prominent spice cultivated in the region.

- **Anaimalai Hills:** Situated in the southern reaches of the Western Ghats along the Kerala- Tamil Nadu border, these hills derive their name from the Tamil word 'aanai, meaning 'elephant, symbolising the presence of wild elephants in the region.

### Significance of Western Ghats

- **Abundant in natural resources:** It sustains both ecosystems and human communities.
- **Watershed for several major rivers:** Godavari, Krishna, Kaveri, and Tungabhadra, provide water for irrigation, drinking, and hydropower generation to millions of people.
- **Modulating effect:** These mountains intercept monsoon winds preventing them from reaching the Deccan Plateau, and thus maintaining its cool, dry conditions.
- **Influence on the ecological and biophysical processes:** They shape monsoon weather patterns across the country and exemplifying the tropical monsoon system.
- **Rich mineral resources:** Eg, iron ore, manganese, bauxite, limestone, and others.
- **Biodiversity:** Western Ghats harbour one of the highest levels of endemism globally. Out of a total of 4,000 vascular plant species, 1,500 were endemic, accounting for 37.5% of the total. Amphibians (up to 179 species, 65% endemic), reptiles (157 species, 62% endemic), and fishes (219 species, 53% endemic), highlight high levels of endemism.

### Threats

- **Habitat loss and fragmentation:** It is majorly due to the cultivation of coffee, tea, palm, rubber, and other crops.
- **Continuous depletion of forests:** it renders the biodiversity of the region increasingly vulnerable, as flora and fauna lose their natural habitats to expanding urbanisation and industrial development.
- **Wildlife poaching**
- **Deforestation**
- **Overfishing**
- **Livestock grazing**
- **Excessive use of agrochemicals** in various plantations
- **Construction of railway lines,** mining operations, and tourist infrastructure in the mountainous areas

### Other challenges:

- ◆ Effective implementation of policies
- ◆ Balancing development with conservation
- ◆ Ensuring inter- state coordination
- ◆ Addressing emerging climate change issues

### Conservation and Management of Western Ghats

- **Robust legal framework:** Environment (Protection) Act, Wildlife (Protection) Act, and Forest Rights Act, declaration of Eco-Sensitive Zone (ESZ) etc.
- **Institutions and agencies:** Ministry of Environment, Forests, and Climate Change, State Forest Departments, and the National Biodiversity Authority
- **Specific initiatives:** Expanding the protected area network, implementing Project Tiger for tiger conservation, and launching national missions like the Green India Mission and the National River Conservation Plan.

### Way Forward

- Strengthening enforcement mechanisms
- Promoting sustainable development practices
- Enhancing collaboration among stakeholders
- Investing in research and monitoring
- Addressing the challenges posed by climate change
- Collaboration among the Government, local communities, NGOs, and other stakeholders

### SOIL ECOSYSTEM - A COMPLEX WEB OF LIFE

The soil ecosystem is a dynamic and diverse community of organisms and abiotic factors that sustain life on Earth. From nutrient cycling to habitat support, soil plays a vital role in terrestrial ecosystems and human well-being. The components and functions of the soil ecosystem are interconnected through intricate networks of relationships and feedback loops.

### Components of the Soil Ecosystem

- **Physical Environment:** The physical properties of soil, including texture, structure, and moisture content, create the foundation for the soil ecosystem.
- **Organic Matter:** Dead plant and animal material, along with living organisms such as microbes, fungi, and earthworms, comprise the organic component of soil.

- **Microorganisms:** Bacteria, fungi, protozoa, and other microorganisms are abundant in soil and are vital for nutrient cycling, decomposition, and soil health.
- **Macroorganisms:** Larger organisms, including earthworms, insects, nematodes, and small mammals, inhabit the soil and play various roles in nutrient cycling, soil aeration, and soil structure formation.
- **Plant Roots:** Plant roots penetrate the soil, anchoring plants and absorbing water and nutrients.

## Functions of the Soil Ecosystem

- **Nutrient Cycling:** Soil organisms decompose organic matter, releasing nutrients such as nitrogen, phosphorus, and potassium into the soil. These nutrients are then taken up by plants, fuelling growth and productivity.
- **Decomposition:** Microorganisms detritivores break down organic matter, recycling nutrients and returning them to the soil. Decomposition processes and contribute to soil fertility and organic matter accumulation.
- **Soil Formation:** Through weathering and biological processes, soil develops over time from parent material.
- **Water Regulation:** Soil structure and organic matter content influence water infiltration, retention, and drainage, affecting plant growth, groundwater recharge, and flood mitigation.
- **Habitat Support:** Soil provides a habitat for a vast array of organisms, ranging from microscopic bacteria to larger mammals.

## SACRED GROVES

Sacred groves are small forest patches conserved by local people through religious beliefs, traditional sentiments, and taboos (Ramakrishna 1997) and are repositories of many threatened species; they are popularly called living biological heritage sites as they contain rich diversity. The existence of sacred groves took place all over the world, including in India as well as in Asia, Africa, Europe, Australia, and America.

### Types of Sacred Groves

- **Temple Groves:** These groves are associated with temples due to their religious importance. Examples: Ficus, Neem, and Tamarind tree.

- **Traditional Sacred Groves:** These are the places where the folk deities reside, i.e., Potharaju, Yellamma, Polamma, Maridimma in Andhra Pradesh, Sammakka-Sarakka Grama Devathalu in Telangana, Kavus in Kerala, Gumpa Groves in Sikkim, etc.
- **Religious Groves:** Where they are associated with Hinduism, Buddhism, Jainism, Islamism, and Sikhism. These are protected by local communities, rather than by formal government legislation.
- **Island Groves:** Island groves can be categorised based on the habitat type-specific ecological importance, for example, mangroves and coastal/reverie areas in Andhra Pradesh.
- **Burial/Cremational/Memorial Groves:** Groves associated with burial places are popularly called Cremational/Memorial groves. Those groves are seen as places of reverence for the deceased and are believed to be inhabited by the spirits of ancestors.

### Significance of Sacred Groves

- **Protection of Ecosystems:** Sacred groves serve as protected areas, safeguarding biodiversity by restricting human activities that can harm the environment.
- **Traditional Knowledge:** Local communities that manage sacred groves often possess a deep understanding of the local ecology and traditional practices that have been passed down through generations.
- **Biodiversity Conservation:** Sacred groves can act as refuge for a wide range of plant and animal species, especially in areas where habitat loss is a major threat.
- **Cultural Preservation:** Sacred groves are often seen as the dwelling places of deities or spirits, and are used for religious ceremonies and rituals.
- **Community Empowerment:** Supporting the conservation of sacred groves can help to empower these communities and give them a greater role in decision-making about their natural resources.
- **Environmental Benefits:** They play a vital role in maintaining the ecological balance of an area. The trees and other vegetation in sacred groves help to prevent soil erosion and provide clean air.

- **Community Conservation:** The core principle of community conservation is protecting biodiversity, preserving natural resources, and managing natural resources sustainably for future preservation.

## Management of sacred groves

- **Wildlife (Protection) Act, 1972:** It empowers the State Government for declaration of any private or community land, as a community reserve, for protecting flora fauna, traditional values and practices.
- **Wildlife (Protection) Amendment Act, 2002:** It introduced the concept of 'Community Reserves, which can be used to provide government protection to sacred groves on community-conserved lands.
- **Steps taken under the Biological Diversity Act 2002 (the Biological diversity (Amendment) act, 2023):**
  - ◆ Survey, inventorisation, taxonomic validation, and threat assessment of floral and faunal resources;
  - ◆ Assessment to develop an accurate database for planning and monitoring as well as conservation and protection of forests;
  - ◆ Establishment of a protected area network of National Parks, Wildlife Sanctuaries, conservation and community reserves;
  - ◆ Designating Biosphere Reserves for conservation of representative ecosystems;
  - ◆ Undertaking of species oriented programmes, such as Project Tiger, Project Elephant, Project Dolphin;
  - ◆ Complemented with ex-situ conservation efforts in the 10 biogeographic zones of the country.
- **Constitutional provisions:**
  - ◆ **Article 25(1):** Freedom of conscience and the right to practice and propagate religion which extends to the protection of practices associated with sacred groves.
  - ◆ **Article 48A:** Directs the state to protect and improve the environment and to safeguard the forests and wildlife of the country.

- ◆ **Article 51A(g):** This article imposes a fundamental duty on every citizen to protect and improve the environment and to have compassion for living creatures reflecting the respect for nature inherent in sacred groves.

## • National Institutions:

- ◆ **Ministry of Environment, Forest and Climate Change (MOEFCC):** Recognises the importance and conservation of sacred groves in India.
- ◆ **National Biodiversity Authority (NBA):** To perform facilitative, regulatory & advisory function on issue of conservation, sustainable use of biological resource, & fair & equitable sharing of benefits of arising from their utilisation to convention on Biological Diversity.
- ◆ **State Biodiversity Boards:** At state level
- ◆ Biodiversity Management Committees (BMCs): At local level

## • International Organisations

- ◆ **United Nations Environment Programme (UNEP):** Focuses on traditional knowledge and biodiversity conservation.
- ◆ **United Nations Educational, Scientific and Cultural Organisation (UNESCO):** Has a programme on 'World Heritage Indigenous Peoples' that recognises the importance of sacred groves for cultural heritage and biodiversity conservation.
- ◆ **World Wildlife Fund for Nature:** Funds projects that support the conservation of sacred groves around the world.
- ◆ **World Conservation Union:** An international organisation that brings together governments and NGOs to work on conservation issues.
- ◆ **Conventional on Biological Diversity (CBD):** It acknowledges the significance of sacred natural sites and encourages collaboration between governments, indigenous and local communities, and other stakeholders.

## Biodiversity Heritage Site

- **About:** Under Section 37 (1) of the Biological Diversity Act, 2002 the State Government may in consultation with the local bodies, notify in the official Gazette of areas of biodiversity importance as Biodiversity Heritage Sites.
- **Characteristics:** Sites that are unique, ecologically fragile ecosystems - terrestrial, coastal, and inland waters, and marine, having rich biodiversity comprising of any one or more of the following components:
  - ◆ richness of wild & domesticated species or Intra-specific categories
  - ◆ high endemism
  - ◆ presence of rare and threatened species
  - ◆ keystone species
  - ◆ species of evolutionary significance
  - ◆ wild ancestors of domestic/cultivated species or their varieties
  - ◆ past pre-eminence of biological components represented by fossil beds
  - ◆ significant cultural, ethical or aesthetic values
  - ◆ important for the maintenance of cultural diversity, with or without a long history of human association with them.
- **Number of biodiversity Heritage Sites:** 44 Biodiversity Heritage Sites have been notified by 16 states.

### Heritage Trees

- **About:** Special trees that are considered to be of cultural, ecological value, and biological significance.
- **Significance:** Often the oldest living things in a community and providing habitat for wildlife.

## Challenges

- **Habitat loss:** Due to developmental activities like urbanisation, infrastructure development, and expansion of agriculture in top hills.
- **Climatic change:** Threatens the forest health and ecosystem, due to sudden and abrupt changes in temperatures.
- **Global warming:** Increase of temperature for a long time, disrupts weather patterns, like heat waves, droughts, floods, forest fires causes changes in forest ecosystem, this will lead to loss of biodiversity.

- **Invasive/ Alien species:** These are introduced species that can harm the native species. e.g. Chromolaena odorata, Lantana camara and Prosopis juliflora.
- **Exploitation of resources:** In some cases, local communities may collect too much firewood, medicinal plants, or other resources from the sacred grove.
- **Other challenges:** Anthropogenic pressure, encroachment, deforestation, cultural degradation, pollution, and no proper legislations, etc.

## BLUE ECONOMY

According to the World Bank, the blue economy is defined as the sustainable development of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of the ocean ecosystem. The blue economy emphasises the integration of the development of the ocean economy with social inclusion and environmental sustainability, combined with innovative business models. Oceans are considered future growth engines, even with the changing climate and other anthropogenic pressures. The blue economy is thus positioned as a core dimension for national growth, reflecting India's commitment to sustainable development and responsible use of ocean resources. Striking the right balance between economic development and environmental preservation is crucial.

## Importance of Seas and Oceans

- **Reservoir of heat:** Plays an important role in moderating the weather and climate.
- **Respiration purposes:** The ocean is responsible for almost half of the oxygen that is inhaled.
- Plays a pivotal role in the **carbon cycle**.
- Home to most of the **earth's biodiversity**
- **Main source of protein** for more than a billion people around the world.
- **Economic importance:** ~ 3-5% of global GDP is derived from oceans, & they have great potential for boosting economic growth by providing opportunities for income generation, jobs, etc.

## India's coasts

- **Indian coastline:** > 7500 km
- **Indian Exclusive Economic Zone (EEZ):** Over 2.2 million sq km.
- **Indian states having maritimes boundaries:** Nine of India's states have access to the coastline.

- **Ports in India:** India has 200 ports, of which 12 are major ports that handled 541.76 million tonnes in FY21, the highest being Mormugao Port, located in Goa, which handled 62.6% of the total traffic.
- **Fishing industry:** The coastal economy sustains over 4 million fishermen and coastal towns. India is the second- largest fish-producing nation in the world and has a fleet of 2,50,000 fishing boats.
- **Contribution of India's blue economy:** It accounts for ~ 4% of the GDP and is estimated to increase once the mechanism is improved.

### Activities under Blue Economy

- **Renewable Energy:** Sustainable marine energy, such as offshore wind and wave energy, plays a vital role in promoting social and economic development while reducing reliance on non- renewable energy sources.
- **Fisheries:** Sustainable fisheries management is essential for generating more revenue, ensuring a continuous

supply of fish, and contributing to the restoration of fish stocks.

- **Maritime Transport:** With over 80% of international goods being transported by sea, maritime transport is a cornerstone of the global economy, connecting nations and facilitating trade.
- **Tourism:** Ocean and coastal tourism not only offer recreational opportunities but also contribute to job creation and economic growth, making it a key component of the blue economy.
- **Climate Change:** Oceans act as crucial carbon sinks, absorbing and storing carbon dioxide, a phenomenon known as 'blue carbon which helps mitigate climate change by reducing greenhouse gases in the atmosphere.
- **Waste Management:** Effective waste management on land is integral to the health of oceans. Proper waste disposal practices prevent pollution, marine debris, and environmental degradation, fostering ocean recovery.

Components of Blue Economy	
<b>Ocean Resources</b>	<ul style="list-style-type: none"> <li>• <b>Fisheries and aquaculture:</b> Fisheries have contributed Rs. 46,663 crore to the economy through exports in 2019-20.</li> <li>• <b>Minerals:</b> Continental margins of India congregate an extensive variety of terrigenous, biogenous, and homogenous mineral deposits, and heavy minerals.</li> <li>• <b>Hydrocarbons:</b> The sea beds are the major source of hydrocarbons. India has 26 sedimentary basins, spread across a total area of 3.4 million square kilometres.</li> <li>• <b>Renewable Energy:</b> Renewable energy in offshore regions has tremendous potential in the form of offshore wind, waves, ocean currents, including tidal currents, and thermal energy.</li> </ul>
<b>Ports, Shipping, and Marine Tourism</b>	<ul style="list-style-type: none"> <li>• <b>Contribution of Maritime transport:</b> Approximately 95% of the country's trade by volume and 68% by value is moved through maritime transport.</li> <li>• <b>Indian Maritime Sector:</b> Comprises ports, shipping, marine biotechnology, shipbuilding and repair, and inland water transport systems.</li> <li>• <b>Marine tourism:</b> In India, coastal tourism has contributed largely to both the state economies and livelihood creation.</li> </ul>
<b>Ocean Science and Services</b>	<ul style="list-style-type: none"> <li>• <b>Observations, data, and information services:</b> The Indian National Centre for Ocean Information Services (NCOIS) regularly provides flagship service advisories on the Potential Fishing Zones (PFZ).</li> <li>• <b>Impact of climate change and disasters on the blue economy:</b> Ocean warming, sea- level rise, ocean acidification, and marine pollution are damaging marine ecosystems, productivity, and the lives and livelihoods of those dependent on the ocean.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Marine Biodiversity:</b> sustainable use of marine and coastal biodiversity, including the declaration of marine protected areas (MPA), is essential to ensuring that the world's oceans, seas, and marine living resources remain vital for current and future generations.</li> <li>• <b>Healthy Ocean:</b> Marine pollution, especially from plastics &amp; microplastics, has to be addressed by a robust Plastic Elimination &amp; National Marine Litter policy involving multiple stakeholders.</li> <li>• <b>Research Gap:</b> There are many studies on the blue economy at the international level in marine biology, marine technology, marine chemistry, geology, shipping, oceanography, etc.</li> </ul>
<p><b>Niche areas</b></p>	<ul style="list-style-type: none"> <li>• <b>Coastal and Marine Spatial Planning:</b> A science-based approach to analyse and allocate coastal and marine uses over space and time to address specific ocean management challenges and advance goals for economic development and conservation.</li> <li>• <b>Marine Spatial Planning (MSP):</b> To allocate human activities spatially, usually through participatory processes, to reconcile differing values and priorities among diverse stakeholders.</li> <li>• <b>Ocean Accounting (OA):</b> To provide a structured and integrated 'data foundation' that shapes policy through providing a range of comparable statistics and indicators.</li> <li>• <b>Ocean Accounts Framework (OAF):</b> A conceptual framework designed to enhance the consistency, comparability, and coherence of ocean-related maps, data, statistics, and indicators across social, environmental, and economic domains.</li> </ul>
<p><b>Source of Employment in the Blue Economy Traditional Sectors</b></p>	<ul style="list-style-type: none"> <li>• <b>Fishing and Aquaculture:</b> Traditional sectors like fishing, aquaculture, and fish processing have been significant sources of employment in the blue economy for many decades.</li> <li>• <b>Marine Tourism:</b> Marine tourism, including activities like cruise travel, boating, scuba diving, and more, contributes to employment and economic growth in coastal regions.</li> <li>• <b>Shipping and Ports:</b> Sea ports are major sources of employment, with jobs in smaller ports increasing over the years.</li> <li>• <b>Shipbuilding:</b> The shipbuilding industry in India holds significant potential and employs individuals with diverse skills.</li> <li>• <b>Offshore Wind and Marine Biology:</b> The move towards sustainability in shipbuilding involves using recyclable or biodegradable materials, ensuring energy and resource efficiency.</li> <li>• <b>Skill Development Initiatives:</b> The blue economy can engage a large workforce, at least in traditional sectors such as fishing, aquaculture, fish processing, marine tourism, shipping, and port activities.</li> </ul>

**RAMSAR CONVENTION ON WETLANDS**

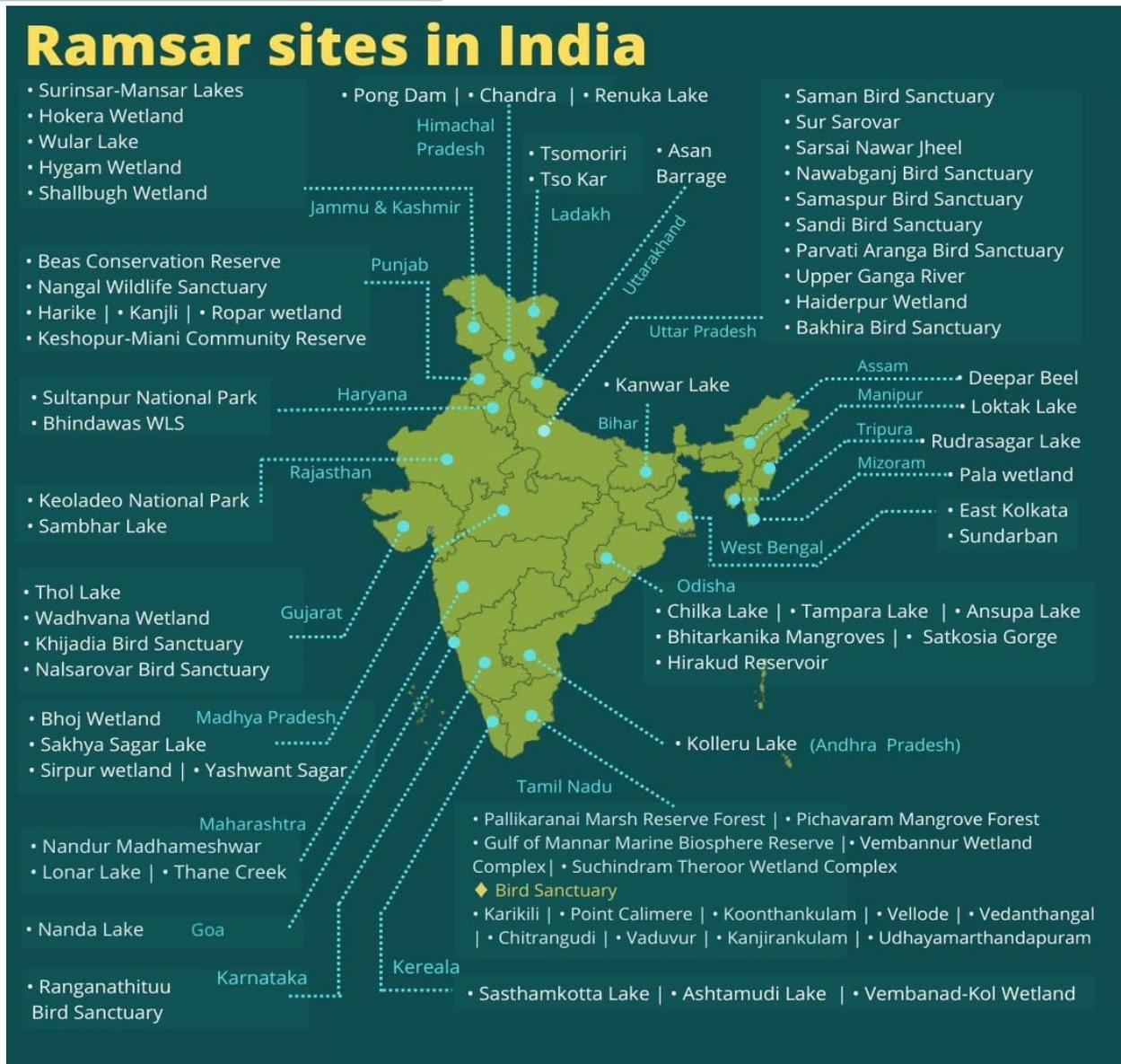
The Convention on Wetlands of International Importance holds the unique distinction of being the first modern treaty between nations aimed at conserving natural resources. The signing of the Convention on Wetlands took place in 1971 at the small Iranian town of Ramsar. Since then, the Convention on Wetlands has been known as the Ramsar Convention. The Ramsar Convention's broad aims are to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. This requires international cooperation, policy making, capacity building and technology transfer.

**Criterion to be selected as a Ramsar Site**

- **Criterion 1:** A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
- **Criterion 2:** A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

- **Criterion 3:** A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
- **Criterion 4:** A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
- **Criterion 5:** A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.
- **Criterion 6:** A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
- **Criterion 7:** A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
- **Criterion 8:** A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.
- **Criterion 9:** A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

## Ramsar Sites of India (As of Jan 2024)



## Kurukshetra

### Rural Tourism - Catalysing the Multifold Developments in Rural India

Rural tourism in India is emerging as a catalyst for economic growth and community empowerment. Government initiatives, competitions, and international recognition, such as UNWTO awards, spotlight successful models like Pochampally and Dhordo. The Vibrant Village Program focuses on comprehensive development in border areas, and capacity-building efforts aim to sustain rural tourism, fostering collaboration and resilience for the well-being of local communities.

#### Development of rural tourism

- **10th five-year plan (2002 - 2007):** Rural tourism was first mentioned
- **11th five-year plan (2007 - 2012):** Rural tourism was first prioritised by providing infrastructural development in these areas as the new form of tourism. Within the specific time frame, out of the total 1003 projects 65 were specifically sanctioned for rural tourism.
- **12th five-year plan (2012 - 2017):** It tries to embrace the opportunities and opening the avenues for the development of the niche areas of tourism like medical tourism and rural tourism.

#### Characteristics of Rural tourism

- Low population density
- Landscape and land-use dominated by agriculture and forestry
- Traditional social structure and lifestyles

#### Types of Rural Tourism

- **Community-based tourism:** A laid out strategy of sustainable tourism which overlays selling of local farm products directly by the village folks thereby giving them additional financial dividends.
- **Farm Tourism:** Here people actually work in farms and experience agriculture.
- **Nature Walks in villages:** It is an untapped tourism potential where real rural life is showcased with touch-and-feel of cattle without earthly smell being artificially suppressed. In villages, one experiences the purity of dairy that one relishes in the luxury of homes.
- **Volunteer Tourism:** In it the tourists visit rural areas and enjoy their stay at the village and they contribute by teaching children, creating art work or adding value to knowledge like better agriculture.

#### Other aspects of Tourism

- **Industrial Heritage Sites:** In India, there are several regions with a rich industrial heritage that could be developed for tourism. Eg, Jamshedpur in Jharkhand, known for its steel industry could develop industrial heritage tourism initiatives.
- **Agricultural Tourism:** Activities like farm stays, agricultural tours, and harvest festivals allow visitors to learn about farming practices, interact with local farmers, and enjoy farm-fresh produce.
- **Dark Sky Tourism:** Dark sky reserves and observatories provide opportunities for visitors to observe celestial phenomena, learn about astronomy, and experience the beauty of the night sky. Eg, areas like Ladakh in Jammu and Kashmir, Spiti Valley in Himachal Pradesh, and parts of rural Rajasthan offer excellent opportunities for stargazing and astronomy tourism.

#### Affirmatory Amenities

- **Meaning:** The amenities in absence of which the very idea would fail to create interest in Rural Tourism.
- **Components:**
  - ◆ **Access to healthcare:** Villages need to have reliable access to healthcare, especially for emergency support within a reasonable time.
  - ◆ **Sanitation and waste management:** Lack of sanitation and effective waste management can lead to unsightly conditions.
  - ◆ **Access to safe potable water:** Assurance of safe potable water is important to ensure that the visitors would not fall sick.
  - ◆ **Green power:** Green power using solar panels is an explicit statement of environment consciousness.
  - ◆ **Street lighting:** It is most essential for the safety and security for those who are not familiar with the surroundings. In any case, it is too restrictive to be confined just to the room after sun-set.
  - ◆ **Smart security solutions:** For security needs, linkage to external remote support through smart solutions is an essential enabler.

## Supportive Amenities for creating tourist-friendly environment

- **Digital services:** Beyond mobile connectivity, access to digital services is a convenience to stay connected which can otherwise be an apprehension of disruption for career-sensitive populations.
- **Travel connectivity:** Preference of a remote location is an attractive option if supported by travel connectivity.
- **Explication of restrictive practices:** Making tourists aware of sensitivities of local communities and enhancing compatibility with tourists, bringing restrictive practices to the fore is a significant catalyst.
- **Access to conveniences:** Availability of basic confectionery, grocery, packaged food, bakery, and bank ATMs is a significant relief from the burden to stock up supplies.

## Value Adding Amenities

- **Digital skill set:** The interface between the tourist and the village host is through digital technologies which requires enhancement of digital literacy of village communities to handle social media engagements, e-marketing of home-stays, and home-based local produce.
- **Hospitality skill set:** National Strategy and Roadmap for Development of Rural Tourism in India has delineated a 150-hour Homestay course as a part of its reforms to bridge the skill gap.
- **'Village Kutir Udyam':** Local art, craft, cuisine, pickles, wellbeing engagements, facilitation of outdoor activity such as trekking, are home-based value-added enterprises that give enhanced memorable experience to a tourist.
- **Local community connect:** Targeting volunteer tourists, connecting with organised local community groups helps in giving exotic exposure to cultures & life-styles.

## Strategising the Way Forward

- **Strategies of the Ministry of Tourism for promoting and developing rural tourism in India:** National Strategy and Roadmap for the Development of Rural Tourism in India & National Strategy for the Promotion of Rural Homestays in India.
- **Vision:** To capitalise on the potential of Indian rural tourism & to focus on the holistic approach for developing rural tourism uplifting the rural economy alongside.

## Key strategic pillars:

- ◆ Benchmarking of state policies and best practices
- ◆ Digital techies and platforms for rural tourism
- ◆ Develop clusters rural tourism
- ◆ Marketing support for rural tourism
- ◆ Capacity building of stakeholders

## Redefining Tourism - Festivals, Cuisine, and Music of Northeast India

In recent decades, there has been a new trend in the Northeast of organising tourism festivals focused on traditional dance, music, and cuisine. Colourful folk dances depicting war, community hunting and farming, traditional music, and food have not only enabled tourists to have a wonderful glimpse of different tribes but have also helped the region and the communities benefit economically. In the Northeast, as every district or every tribe offer its own exclusive cuisine, tourists have begun to increasingly consider the region as a land of food festivals.

## Ethnic Festivals

### 1. Assam

- **Rongali Bihu:** The New Year festival best enjoyed in villages close to Guwahati, Jorhat, Dibrugarh, Sivasagar, and Tezpur.

### North East India's Vibrant Festivals and Cultural Diversity

- 🌐
**Ziro Music Festival, Arunachal Pradesh:**  
 Largest non-pilgrimage tourist event featuring captivating music & cultural performances
- 🌐
**Hornbill Festival, Nagaland:** A cultural extravaganza with adventure, art, handicrafts, and more
- 🌐
**Temi Tea Autumn Festival, Sikkim:** A unique event that celebrates organic tea at the renowned 'Temi Tea Estate'



- **Chandubi Festival:** Held in the first week of January beside the picturesque Chandubi Lake, 50 km west of Guwahati. It showcases music, dances, and cuisine, particularly of the Rabha tribe, of which the Farkanti dance is most colourful.

- **Jon-Beel Mela:** At Jagiroad, about 45 km east of Guwahati, this Mela is celebrated as a barter festival between the Khasis of the Meghalaya hills and the Tiwas of the Assam plains.
- **Karbi Youth Festival:** It began to be organised fifty years ago. Later it was renamed as Hornbill festival.
- **Raas Festival:** Held in November, this 7-day event comprises a performance of Bhaona - traditional play, written in the 16th century, which comprises, among others, the Sattriya dance, a classical dance form.
- **Ali-ai-Lrigang:** Celebrated in April by the Mising tribal community of Majuli as their spring festival in which tourists return home carrying in their hearts the unique tune of the Oinatom, 'songs of love' as those are called.
- **Mon-geet:** A new festival of music and culture, held in mid-January on the sandy banks of the Brahmaputra, which surrounds the heritage island.

## 2. Arunachal Pradesh

- **Lossar:** The New Year festival of the Monpa tribe of Tawang (Arunachal Pradesh), held in February. Buddhists by faith, the Monpas perform Aji Lhamu, a mask dance, which is a feast for photographers.
- **Ziro Music Festival:** Launched in 2012, celebrated in Apatani Valley, it showcases traditional music of the Himalayan state alongside performances by big bands for about a week in October every year.

## 3. Mizoram

- **Chapchar Kut:** Brought out of the traditional village field to Aizawl, celebrated in villages in mid-March after completion of their most arduous task of jhum operation (clearing the jungle by burning the studs).
- **Mim Kut (Maize festival):** Celebrated in Mizoram in August-September
- **Pawl Kut (harvest festival):** Celebrated in December; while the food may vary, the dance and music are similar to those of Chapchar Kut in these festivals.

## 4. Nagaland

- **Sekrenyi festival:** Held in February, Sekrenyi is a ten-day celebration of the Angami people who live in and around Kohima, which signifies purification and sanctification before going to war.

- **Moatsu festival:** Moatsu is observed by the Ao people in Mokokchung district in the first week of May, and is a festival of community bonding held after the sowing season.

## 5. Meghalaya

- **Nongkrem and Shad-Suk- mynsiem:** Festival of the Khasi community
- **Wangala or hundred drums festival:** Festival of the Garos
- **Bahdienkhlam:** Belongs to Jaintia tribe
- **Cherry Blossom Festival:** It is held in November in Shillong.

## Importance of Fairs and Festivals

- **Economic importance:** Celebrations during festivals in India create livelihood opportunities for many artisans.
- **Socio-cultural importance:**
  - ◆ Religious festivals also offer an opportunity to encourage social bonding across religions.
  - ◆ Familial bonds have come under stress due to effects of globalisation and westernisation; festivals provide a platform for maintaining them.
- **MICE (Meetings, Incentives, Conferences and Exhibitions/Events) and Roots tourism through festival:**
  - ◆ In tourism industry, destination weddings are treated under 'events' of MICE.
  - ◆ Heritage and Roots tourism are important for travellers who are seeking their family roots.
- **Adventure and rural tourism through festival:** Adventure tourism can be any tourism activity that includes physical activity, cultural exchange, and connection with nature. Adventure tourism activities like rock climbing, rappelling, etc. are also offered in Kutch Rann Utsav, Gujarat.
- **Reinvigorating heritage through festivals:** Heritage tourism fulfils travellers' interest in historical attractions such as monuments and sites of important past events, as well as in traditions.
- **Facilitating rural produce through festivals:** Farm produce and associated activities can be rural tourism attractions. U.P. produces a large variety of mangoes.

- **Floriculture and tourism through festival:** For eg, tulip festival (organized during the onset of spring season) is an annual celebration that aims to showcase the range of flowers in the garden as a part of tourism efforts.
- **Sustaining Indian arts and 'authenticity' through festivals:** Eg, Virasat is heritage and folklife festival, held annually at Dehradun, Uttarakhand. It is organised by REACH (Rural Entrepreneurship for Art and Cultural Heritage) for past 24 years. It presents arts and culture of India in a unique, educative format that allows young people and visitors to learn about their roots while also enjoying arts.
- **Wellness and sports tourism through festivals:** International Yoga Festival (IYF), held every year in Rishikesh, Uttarakhand, was started as a small festival in 1999, which is now a sought-after international tourist attraction.

# 14. EDITORIALS

## 1. India rejects China's 'senseless' Arunachal act - Indian Express

- India recently rejected as senseless China renaming of some places in Arunachal Pradesh, and said that assigning "invented" names does not alter the reality that the state "is, has been, and will always be" an integral part of India. India's sharp response came after the Chinese government announced names for 30 more places in Arunachal Pradesh which it claims as the southern part of Tibet.

### McMahon Line

- **Definition:** Disputed boundary in the Eastern Sector of the India-China border.
- **Origin:** Established during the Shimla Conference (1913-1914).
- **Participants:** Representatives from China, India, and Tibet convened in Shimla.
- **Drafted by:** Sir Henry McMahon, then foreign secretary of British India.
- **Length:** Stretches for 550 miles (890 km) from the eastern border of Bhutan to the Isu Razi pass on the China-Myanmar border.

### Indo-China 1962 War and Arunachal Pradesh

- **Territorial Dispute:** Arunachal Pradesh is the largest disputed area, covering approximately 90,000 sq. km.
- **1962 Conflict:** During the 1962 war, the People's Liberation Army (PLA) occupied Arunachal Pradesh.
- **Ceasefire and Withdrawal:** PLA unilaterally declared a ceasefire and withdrew, respecting the McMahon Line.
- **Continued Assertion:** Despite withdrawal, China persists in asserting its claim over Arunachal Pradesh.
- **Current Status:** China claims almost the entire territory of Arunachal Pradesh as its own.

### Dispute in Eastern Sector

- **Description:** India-China border dispute primarily focuses on the Eastern Sector.
- **McMahon Line Shift:** Significantly extended British control northwards.

- **Territorial Impact:** Resulted in the cession of Tawang and other Tibetan areas to the British Empire.
- **Chinese Response:** Initially, Chinese representatives initiated the agreement but later refused to accept it.
- **Non-recognition of McMahon Line:** China officially does not recognize the McMahon Line, labelling it as "illegal."
- **Arunachal Pradesh:** China claims territories south of the McMahon Line, particularly in Arunachal Pradesh, which it considers as part of Southern Tibet.
- **Historical Ties:** China cites historical connections between monasteries in Tawang and Lhasa to support its territorial claims.

## 2. Repolls and adjournments: ECI's options when polling process is disrupted

- The Election Commission of India (EC), under Sections 58(2) and 58A(2) of the Representation of People Act, 1951 (RPA), declared void the poll on April 19, in 11 polling stations of Manipur, and 8 polling stations of Arunachal Pradesh.

### Circumstances when the normal polling process is disrupted—and the options before the EC

#### 1. Intentional destruction, taking away of EVMs

- **The EC can declare the poll at a polling station to be void if:**
  - ♦ an unauthorised person has unlawfully taken away any EVM;
  - ♦ any EVM has been accidentally or intentionally destroyed, or lost, or damaged, or tampered with; or
  - ♦ a mechanical failure develops in any EVM during the recording of votes.
- **Options before EC:**
  - ♦ Returning Officer (RO) immediately informs the EC and the Chief Electoral Officer of the state, after considering which, the EC can declare the poll void & formally fix the date and time for a new poll.
  - ♦ The contesting candidates or their election agents are then informed, in writing.

- ◆ A notice is also posted in public places along with an announcement by the beat of the drum in the polling area to inform the voters.
- ◆ All electors will be allowed to vote at the fresh poll.

## 2. Booth capturing

- **Booth-capturing includes:**
  - ◆ seizure of a polling station, affecting the conduct of elections;
  - ◆ taking possession of a polling station, allowing only his or their supporters to vote;
  - ◆ intimidating or threatening any elector and preventing him from going to the polling station;
  - ◆ seizure of a counting place affecting the counting of votes;
  - ◆ involvement of any person in government service in any of the above activities.
- **Penal provisions:** Punishable for a term of not less than one year, which may extend to three years for lay people, and not less than three years, extending to five years for government servants.
- **Options before EC:** The EC may
  - ◆ declare the poll at that polling station to be void and direct a fresh poll on a new date; or
  - ◆ countermand the election in the constituency in case booth capturing has taken place in a large number of polling stations, or if it has affected the counting of votes.

## 3. Natural disasters, other disruptions to polling

- **It includes:**
  - ◆ a natural calamity like a flood, a severe storm;
  - ◆ non-receipt or loss or damage to essential polling materials like EVM, electoral roll etc;
  - ◆ interruption or obstruction due to any riot or, open violence;
  - ◆ non-arrival of the polling party due to obstruction or any other serious difficulty; or
  - ◆ non-commencement of the poll within two hours from the scheduled time due to malfunctioning of EVM, or any other reason.

- **Options before EC:**

- ◆ After seeking the EC's approval on the date and hours, the adjourned poll will recommence from the stage at which it was left immediately before the adjournment.
- ◆ Contesting candidates or their agents are informed, and only electors who have not already voted before the poll was adjourned are permitted to vote.

## 4. Death of a candidate

- **The poll shall be adjourned** only in case of the death of a recognised political party's candidate.
- **Recognised political party:** Either a recognised national party, or party recognised as a state party in a state, for which the EC reserves a symbol under Election Symbols (Reservation and Allotment) Order.
- **Applicable if** the candidate with a valid nomination dies at any time after 11.00 a.m. on the last date for making nominations, until the commencement of the poll.
- **Options before EC:**
  - ◆ The EC then calls upon the concerned political party to nominate another candidate for the said election in place of the deceased candidate.
  - ◆ The political party must make the nomination within seven days.
  - ◆ If the list of contesting candidates has already been published before the adjournment of the poll, a fresh list of contesting candidates is prepared and published, including the name of the candidate nominated in place of the deceased candidate.

## 3. Reversing the Global Democratic Recession

- India is in the midst of its most significant electoral exercise and it might be worthwhile to scrutinise people's changing perceptions about their political ecosystems in both the largest democracy and other smaller democratic spaces elsewhere. Such an exercise may help us understand the prevailing global situation and work on the future course of action.

### Findings of the Pew Research Center's global survey

- **Disenchantment in findings:** This survey of 30,861 respondents delves into the complex fabric of democratic ideals, revealing both global trends and nuanced regional variations.

- **Signals a discernible erosion of trust in democratic systems:** Here, 77% of the respondents expressed optimism about representative democracy. But, their receptivity to alternative governance models is worrisome.
- **A perilous transformation from 2017 to 2023:** It is marked by an increased inclination towards rule by experts (58%) and a growing acceptance of authoritarian government models (26%).
- **Rationale behind this shift:** Democracies, with their need for discussions and consensus-building, lead to delays, while concentrated power facilitates prompt decision-making and quicker economic development.
- **Emerging trends:**
  - ◆ Respondents from countries with lower incomes and less education tend to endorse such 'strong' leaders.

- ◆ 15% supports military rule, particularly in middle-income countries.

**India's perception of democracy**

- **Trend in 2017:** 44% of Indians favoured representative democracy, which has since decreased to 36% in 2023.
- **Increased inclination towards a powerful leader with significant authority:** It rose from 55% in 2017 to 67% in 2023.
- **Support for rule by experts:** It soared from 65% to an impressive 82%.
- **Increased inclination towards military rule or governance by an authoritarian leader:** A staggering 85% prefer it.
- **India's position as per democracy-monitoring organisations:** They characterise India as a "hybrid regime", ranging from "free to partly free" to "electoral autocracy," and even termed it a "flawed democracy".

Ways to Strengthen Democratic Foundations	
<b>Participatory Governance</b>	<ul style="list-style-type: none"> <li>• Foster active citizen participation in decision-making</li> <li>• Establish mechanisms like town hall meetings, participatory budgeting, citizen assemblies, and digital platforms for engagement</li> </ul>
<b>Free and Equal Access to Information</b>	<ul style="list-style-type: none"> <li>• Ensure transparency and access to accurate information</li> <li>• Strengthen freedom of information laws and promote media literacy</li> </ul>
<b>Accountable and Just Governance</b>	<ul style="list-style-type: none"> <li>• Uphold rule of law and accountability</li> <li>• Establish checks and balances, independent judiciary, and oversight mechanisms</li> </ul>
<b>Promotion of Civic Engagement and Civil Society</b>	<ul style="list-style-type: none"> <li>• Support civil society organizations and protect freedoms of expression and assembly</li> <li>• Foster collaboration between government and civil society</li> </ul>
<b>Ethical Leadership and Public Service</b>	<ul style="list-style-type: none"> <li>• Promote ethical conduct and integrity in public service</li> <li>• Combat corruption and hold individuals accountable for misconduct</li> </ul>
<b>Responsive and Inclusive Policies</b>	<ul style="list-style-type: none"> <li>• Prioritize policies that address the needs of all citizens, especially marginalized groups</li> <li>• Engage diverse stakeholders and promote social justice and economic equality</li> </ul>

**What is the 'Basel III endgame' and why are U.S. banks worked up about it?**

- The U.S. Federal Reserve has announced significant revisions to a proposed set of stricter bank capital requirements known as the "Basel III endgame." These changes reflect a victory for Wall Street banks, which have mounted an unprecedented effort to soften the rules. The Basel Committee on Banking Supervision's rules, targeting banks with assets exceeding \$100 billion, aim to revamp how major banks handle their capital, affecting lending and trading activities. Banks argue that the proposed additional capital is unnecessary and could harm the economy, leading them to aggressively lobby against the initiative.

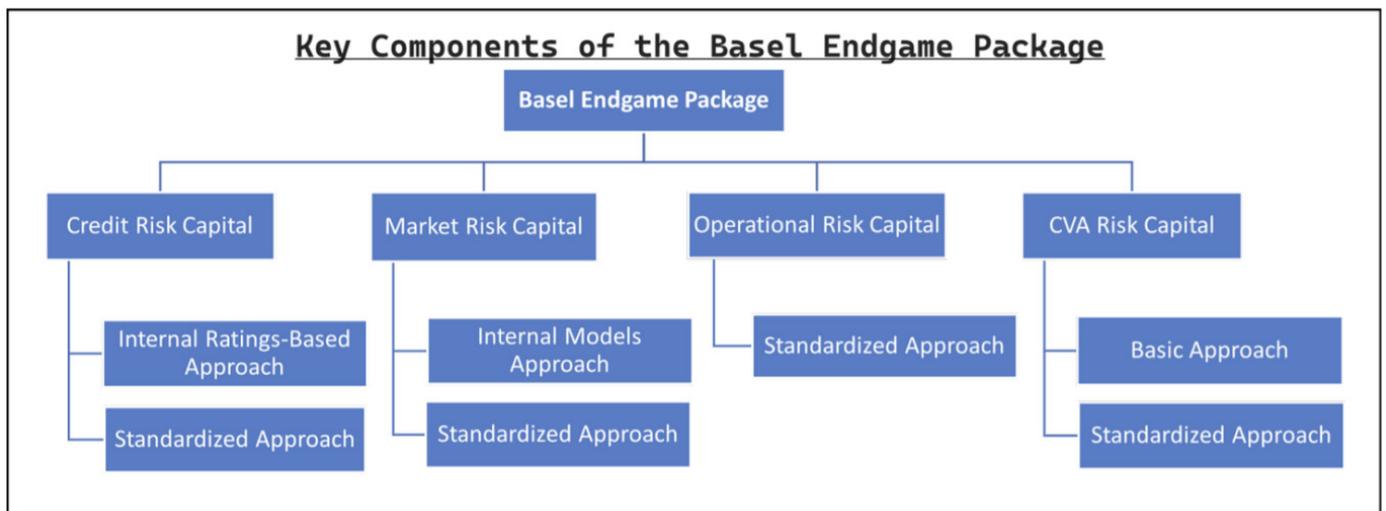
**Basel Committee on Banking Supervision (BCBS)**

- **Establishment:** 1974
- **Aim:** To enhance financial stability by improving bank supervision quality.
- **Indian Membership:** India joined BCBS in 2009.
- **Convened by:** Bank for International Settlements (BIS) in Basel, Switzerland.
- **Importance:**
  - ◆ Primary global standard-setter for prudential regulation of banks.
  - ◆ Ensures global regulators apply consistent minimum capital standards for banks to withstand loan losses during economic challenges.
- **Issues:** Lacks legal authority to enforce agreed-upon minimum standards.

**Basel III Endgame**

- **Basel III:** A framework developed by the Basel Committee post-2007-09 financial crisis.
- **Components:** Capital, leverage, and liquidity requirements.
- **Purpose:** To enhance bank regulation, supervision, and risk management.
- **Basel III Endgame (2017):** Final set of rules emphasising capital adequacy against credit, operational, and market risks.
- **Introduces stricter regulations:** To improve risk management, particularly regarding credit, market, and operational risks, by standardising assessment methodologies and enhancing capital adequacy measures.

**Provisions of Basel III Endgame**



- **Applicability:** Rules apply to banks with over \$100 billion in assets.
- **Risk Assessment Overhaul:** Banks must reassess risk and allocate capital more effectively against potential losses.
- **Credit Risk:**
  - ◆ Regulators aim to eliminate banks' use of internal risk models for assessing capital requirements against lending activities like mortgages or corporate loans.
  - ◆ Internal models often underestimate risk due to capital cost incentives.
  - ◆ Preference for uniform modelling standards across large banks.
- **Market Risks:**
  - ◆ Introduces new requirements for banks to evaluate market risks related to market swings and trading losses.
  - ◆ Regulators identify current market risk assessments as inadequate.
- **Operational Risk:**
  - ◆ Emphasises assessment of potential losses from various sources like internal policy failures, management errors, litigation costs, or external events.
  - ◆ Regulators seek to replace internal risk models with standardised approaches considering a bank's activities and historical operational losses for capital calculations.
  - ◆ Concerns raised by banks relying on non-interest fee income (e.g., credit card and investment banking fees) due to potential higher operational risk capital requirements.
- **Implementation Approach:**
  - ◆ Banks may continue using approved internal models for risk assessment,

but standardised models could be required for complex risks.

- ◆ Anticipates increased capital requirements for banks with significant trading operations.

### Proposed Changes by the U.S. Federal Reserve

- **Reason for change:** The Federal Reserve is contemplating substantial modifications to the Basel III Endgame rules in response to extensive criticism and industry pressure.
- **Anticipated changes:** Reducing the overall impact of capital requirements imposed by the new rules, addressing concerns raised by banks regarding increased costs and operational impacts.

### Reasons for U.S. Banks Opposing Basel III Endgame Rules

- **Potential Increase in Costs for Fee-Dependent Banks:** Banks relying heavily on non-interest fee income (e.g., credit card and investment banking fees) anticipate significantly higher costs due to increased operational risk capital requirements under Basel III Endgame.
- **Lack of Justification and Data:** Banks complain that regulators have not provided sufficient data or justification for the proposed increases in capital requirements, leading to uncertainty and concerns about the impact on bank profitability.
- **Threats of Legal Action:** Some banks have threatened legal action against regulators due to dissatisfaction with the lack of transparency and perceived flaws in the rule implementation process.
- **Unmet Expectations for Regulatory Relief:** Banks had expected U.S. regulators to offer relief by adjusting other aspects of capital requirements to mitigate the impact of Basel III Endgame, but these expectations have not been met, leading to frustration within the banking industry.

### Bank for International Settlements (BIS)

- **Establishment:** 1930, & is the oldest global financial institution.
- **Legal Status:** Operates under international law.
- **Headquarters:** Basel, Switzerland, with representative offices in Hong Kong SAR and Mexico City.
- **Origin:** Created from the Hague Agreements of 1930, assuming the responsibilities of the Agent General for Repatriation in Berlin.

- **Importance:** Serves as a key institution in international finance, facilitating cooperation among central banks and promoting monetary and financial stability globally.

### 5. Melting ice sheets may postpone need for 'negative leap second'

- According to a new study published in the science journal Nature, it may even be altering how we keep time. The study notes that as glaciers and ice sheets in Greenland and Antarctica melt at an accelerating rate thanks to rising temperatures, all that extra liquid is redistributing weight across the planet. That's ever-so-slightly slowing down the Earth's rotation on its axis.

### Leap Second

- **About:** A measure to combat the long-term slowdown in the Earth's rotation which is caused by the constant melting and refreezing of ice caps.
- **Aim:** Added every now and then to Coordinated Universal Time (UTC) in order to synchronise a clock worldwide with the Earth's ever slowing rotation.
- **Components of UTC:** It consists of a time scale that combines the output of more than 300 highly precise Atomic clocks worldwide.
- **Atomic clocks:** Very accurate & stable within 1 second over a period of millions of years.
- **Introduction of the system of leap seconds:** Early 1970s; so far, 27 positive leap seconds have been added.
- **Astronomical Time/ Universal Time (UT1):** Earth's rotation around its own axis and determines the length of a day.
- **Reason for addition:**
  - ◆ The Earth's rotation around its own axis is not regular, as sometimes it speeds up and sometimes it slows down, due to various factors including the moon's gravitational Earth-braking forces that often results in ocean tides.
  - ◆ Astronomical Time (UT1) gradually falls out of sync with Atomic time (UTC).
- As and when the difference between UTC and UT1 approaches 0.9 seconds, a "Leap Second" is added to UTC through Atomic clocks worldwide.
  - ◆ A leap second is normally inserted either on June 30 or December 31.

**Negative Leap second**

- **About:** A second that is subtracted from our clocks to keep them in sync with the Earth's rotation.
- **Use:** Till date no negative leap second was introduced because, in the last few decades the Earth's rotation has generally been a bit slow. Since Earth is spinning faster than usual recently, timekeepers had thought of using negative leap seconds for the first time.
- **Decision to add or subtract a negative Leap Second:** Taken by International Earth Rotation and Reference Systems Service (IERS)

**6. South Asia, India risk squandering demographic dividend: World Bank**

- The World Bank has warned that the South Asia region including India was not making use of its demographic dividend as the pace of job creation in the region fell well short of the growth in the working-age population, even as it projected a strong 6.0-6.1% growth for 2024-25 for the region in its South Asia regional update, Jobs for Resilience, released recently.

<b>Key Highlights of the Jobs for Resilience Report</b>	
<b>Deceptive Strength</b>	<ul style="list-style-type: none"> <li>• South Asia's output growth is projected at 6.0-6.1% in 2024-25, exceeding other emerging markets and developing economies (EMDE).</li> <li>• Growth largely driven by India; rest of the region's growth remains below pre-pandemic averages.</li> <li>• Public sector drives growth, while private investment remains weak.</li> <li>• Underlying vulnerabilities persist, posing downside risks to growth.</li> </ul>
<b>Private Investment</b>	<ul style="list-style-type: none"> <li>• Sharp slowdown in private investment growth across South Asian countries compared to pre-pandemic levels.</li> <li>• Hinders region's efforts to meet development and climate objectives.</li> </ul>
<b>Climate Adaptation</b>	<ul style="list-style-type: none"> <li>• South Asia is highly vulnerable to climate change.</li> <li>• Limited fiscal positions restrict public policies for climate change adaptation.</li> <li>• Adaptation burden disproportionately falls on firms, farmers, and households, especially the poor.</li> </ul>
<b>Jobless Development</b>	<ul style="list-style-type: none"> <li>• South Asia's labour markets suffer from declining employment ratios and low shares of women in employment compared to other EMDEs.</li> <li>• Employment ratio (employment relative to total working-age population) is low.</li> <li>• Agriculture shedding labor; non-agriculture sector slow in job creation.</li> <li>• Challenging institutional and economic environments impede firm growth.</li> <li>• Region relies on labor productivity and population growth for output growth.</li> <li>• Working-age population growth likely to decelerate; labor productivity growth slowed since COVID-19 pandemic.</li> </ul>

<b>Risks Highlighted in the Jobs for Resilience Report</b>	
<b>Economic Risks</b>	<ul style="list-style-type: none"> <li>• Efforts to reduce high debt, borrowing costs, and fiscal deficits may eventually slow growth.</li> <li>• Governments' ability to respond to climatic shocks may be limited due to constrained fiscal resources.</li> </ul>
<b>Climate Adaptation</b>	<ul style="list-style-type: none"> <li>• Provision of public goods is crucial for effective climate adaptation.</li> <li>• Household and farm adaptation strategies, such as shifting to non-agricultural jobs, are less effective due to limited opportunities outside agriculture.</li> </ul>

<b>Employment Trends</b>	<ul style="list-style-type: none"> <li>• Weak employment trends concentrated in non-agricultural sectors.</li> <li>• Employment growth falling short of working-age population growth.</li> </ul>
<b>Demographic Dividend</b>	<ul style="list-style-type: none"> <li>• Region fails to fully capitalise on its demographic dividend due to low employment rates.</li> <li>• Potential for 16% higher output growth if the region's employment rate matches other EMDEs.</li> </ul>

<b>Key Highlights for India</b>	
<b>Employment Growth</b>	<ul style="list-style-type: none"> <li>• India's employment growth lagged behind the average growth in its working-age population during the 2000-2023 period.</li> <li>• Employment ratio declined significantly, except for Nepal, up until 2022.</li> </ul>
<b>Rebound in Employment</b>	<ul style="list-style-type: none"> <li>• Preliminary data suggested a 3-percentage point rebound in India's employment ratio in 2023, partially reversing the decline.</li> </ul>
<b>Economic Growth</b>	<ul style="list-style-type: none"> <li>• India's economy is expected to post robust growth of 7.5% in FY 23/24.</li> <li>• Expansion, along with recoveries in Sri Lanka and Pakistan, largely drives strong numbers for the South Asian region according to the World Bank.</li> </ul>

<b>Way Ahead as per the report</b>	
<b>Boosting Growth and Investment</b>	<ul style="list-style-type: none"> <li>• Strengthen job creation and ease financial market restrictions to enhance growth, private investment, and government revenues.</li> <li>• Create conditions favourable for climate adaptation.</li> </ul>
<b>Factors for Sustained Private Investment</b>	<ul style="list-style-type: none"> <li>• Strong institutional quality, competitive real exchange rate, and openness to trade and capital flows facilitate sustained accelerations in private investment.</li> </ul>
<b>Effective Adaptation Strategies</b>	<ul style="list-style-type: none"> <li>• Public support for adaptation tends to be more effective than purely private strategies.</li> <li>• Policy should prioritise: <ul style="list-style-type: none"> <li>◆ Implementing comprehensive policy packages.</li> <li>◆ Prioritising policies with "double dividends."</li> <li>◆ Designing policies targeting non-climate goals without compromising climate-related goals.</li> </ul> </li> </ul>
<b>Sustainable Growth and Employment</b>	<ul style="list-style-type: none"> <li>• Increase employment ratios, particularly in the non-agricultural sector and among women, through: <ul style="list-style-type: none"> <li>◆ Removing obstacles to business growth.</li> <li>◆ Enhancing openness to international trade.</li> <li>◆ Easing labour market and product market restrictions.</li> <li>◆ Investing in human capital.</li> <li>◆ Strengthening women's rights and equality.</li> </ul> </li> </ul>

# 15. TERMS IN NEWS

## Non-Fungible Tokens (NFT)

- Non-fungible tokens, or NFTs, are unique digital certificates stored on a blockchain that verify ownership of a digital asset. This asset can be anything from a piece of digital art to a virtual trading card. Unlike fungible items like money, where one dollar is interchangeable with another, NFTs are one-of-a-kind and cannot be replicated. This makes them valuable to collectors and allows creators to sell their digital work in a new way. The ownership information for NFTs is stored securely on the blockchain, making it easy to track and verify.

## Open Market Operations (OMOs)

- The Reserve Bank of India (RBI) uses Open Market Operations (OMOs) to manage the amount of money circulating in the economy. Imagine it as a tool to add or remove rupees from the system. When there's a lack of money, the RBI buys government securities from banks. This injects money into the economy as banks now have more cash reserves to lend. Conversely, if there's too much cash, the RBI sells government securities. Banks pay for these securities with their existing reserves, effectively taking money out of circulation. By strategically buying and selling, the RBI influences interest rates and inflation, maintaining a stable financial environment.

## Heatwaves

- Heatwaves are prolonged periods of excessively hot weather, relative to the usual temperatures in a place. They can pose significant health risks and disrupt daily life. The India Meteorological Department (IMD) has specific criteria to declare heatwaves, considering both departure from normal temperatures and the actual maximum temperatures reached.
- For plains regions, a heatwave is declared if the maximum temperature departs from the normal by 4.5°C to 6.4°C for five or more consecutive days. If the departure is even higher than 6.4°C, it's categorized as a severe heatwave. However, even without

such a large departure, a heatwave can be declared if the actual maximum temperature reaches 45°C or above for plains regions. A severe heatwave in the plains is declared when the actual maximum temperature reaches 47°C or higher. For hilly regions, the thresholds are slightly different, with a heatwave being declared at 30°C or above and a severe heatwave at actual temperatures exceeding 32°C. Coastal stations have their own criteria, where a heatwave can be defined if the temperature deviates by at least 4.5°C from the average, provided the maximum temperature is at least 37°C. These classifications help authorities issue timely warnings and take necessary precautions to mitigate the impact of heatwaves on public health and infrastructure.

## The Turing Test

- The Turing Test, proposed by Alan Turing in 1950, is a classic approach to assessing a machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human. It involves a blind test where a human judge holds conversations with a hidden human and a machine (often through text chat). If the judge can't reliably tell the difference based on the conversation, the machine is considered to have passed the test. The Turing Test has been highly influential in artificial intelligence research, sparking debates about the nature of intelligence and the possibility of machines achieving consciousness. However, it also faces criticism for focusing solely on language ability and not considering other aspects of human intelligence like problem-solving or physical interaction with the world. Despite its limitations, the Turing Test remains a significant concept in the field of AI, serving as a benchmark for progress in developing truly intelligent machines.

## De-dollarization

- De-dollarization is the gradual decline of the US dollar's dominance in global finance. This is seen through a rise in non-

dollar reserve currencies, local currency trade agreements, and alternative payment systems. Reasons include geopolitical tensions, diversification strategies, and reduced transaction costs. While the dollar's future remains uncertain, de-dollarization could reshape the international financial landscape.

## Neural Networks

- Neural networks, inspired by the human brain, mimic its structure and function, comprising interconnected artificial neurons known as nodes. These nodes, organized in layers, establish connections akin to synapses, enabling learning and task performance enhancement through the adjustment of connection strength. Trained on extensive datasets, neural networks discern patterns and relationships, facilitating predictions, classifications, and even creative outputs like music or code generation. With applications spanning image and speech recognition, natural language processing, and robotics, neural networks stand as a potent AI tool, perpetually advancing with the exploration of novel architectures and applications.

## Thaali Economics

- Thaali economics is a clever way to gauge India's economic well-being by tracking the prices of a traditional thali meal. This complete meal platter, with staples like rice or roti, vegetables, and lentils, reflects the affordability of essential food items for the common people. Rising thali prices indicate inflationary pressures, particularly impacting household budgets. By monitoring thali economics, policymakers and citizens can gain insights into the cost of living and potential areas for economic intervention. It's a simple yet insightful approach to understanding India's economic pulse.

## Sterilization

- The RBI uses sterilization to manage the rupee's value and inflation. When it buys foreign currencies to weaken the rupee, it injects rupees into the economy. To prevent this from fueling inflation, the RBI might sell government securities. This absorbs excess rupees, keeping a lid on inflation and maintaining a delicate

balance between currency management and price stability.

## "God Particle"

- The term "God particle" colloquially refers to the Higgs boson, a fundamental particle predicted by the Standard Model of particle physics. Its discovery in 2012 at the Large Hadron Collider (LHC) in CERN, Switzerland, confirmed the existence of the Higgs field, which endows other particles with mass through interactions. The nickname "God particle" was coined by physicist Leon Lederman, although many scientists prefer to call it the Higgs boson due to its misleading connotations. Its significance lies in providing insights into the mechanism of mass generation in the universe and contributing to our understanding of the fundamental forces governing the cosmos, ushering in a new era of particle physics research.

## Model Code of Conduct (MCC)

- The Model Code of Conduct (MCC) is a set of guidelines issued by the Election Commission of India (ECI) to regulate the conduct of political parties and candidates during elections. It aims to ensure free and fair elections by preventing activities that could unduly influence voters or disrupt the electoral process. The MCC prohibits actions such as the use of government resources for campaigning, inflammatory speeches, bribing voters, and appealing to communal or caste sentiments. It also imposes restrictions on the use of loudspeakers, processions, and posters. The MCC is enforced from the announcement of elections until the conclusion of the electoral process to maintain integrity and impartiality in the electoral arena.

## Eavesdropping

- Eavesdropping is the act of secretly listening in on someone else's private conversation without their knowledge or consent. It can be done in person, like sneaking up on a conversation, or electronically, by intercepting phone calls, messages, or online chats. Eavesdropping is a privacy violation and can be used to steal sensitive information, blackmail someone, or gain an unfair advantage in a business deal.

**Drop shipping**

- Drop shipping is a retail strategy where the seller acts as a middleman. They list products in their online store, but don't keep any inventory themselves. When a customer orders something, the seller forwards the order and customer details to a third-party supplier. This supplier then ships the product directly to the customer. The seller makes a profit on the difference between the wholesale price from the supplier and the retail price they set for the customer. It's a low-risk way to start an online business, but can mean lower profit margins and less control over product quality and shipping times.

**Fed tapering**

- Fed tapering, a term often used in the context of monetary policy, refers to the Federal Reserve's gradual reduction of its asset purchases. These asset purchases, also known as quantitative easing (QE), involve buying government bonds and other securities to inject liquidity into the financial system. Tapering occurs when the Fed decides to decrease the pace of these purchases. Typically, this decision is made when the economy shows signs of improvement and the central bank aims to scale back its stimulus measures. Fed tapering is closely monitored by financial markets and investors as it can affect interest rates, inflation expectations, and asset prices. The timing and pace of tapering are important considerations for policymakers as they seek to balance economic growth with price stability.

**Advance Pricing Agreements (APAs)**

- Advance Pricing Agreements (APAs) are pre-arranged contracts between a company and tax authorities. These agreements establish a specific method (transfer pricing methodology) for valuing transactions between related companies in different countries. The goal is to avoid future tax disputes by ensuring all parties agree on how much profit each entity earns from these transactions, preventing countries from accusing companies of manipulating transfer prices to minimize taxes. APAs typically cover a set period of time and can involve one tax authority (unilateral) or multiple authorities from different countries (bilateral or multilateral) for complex international transactions.

**Blue chip companies**

- Blue chip companies are the bedrock of the financial market, renowned for their stability and consistent performance. These firms, such as Apple, Microsoft, Coca-Cola, and Johnson & Johnson, boast strong balance sheets, longstanding profitability, and a history of dividend payments. Their resilience during economic downturns and ability to deliver steady returns make them sought-after investments for both institutional and individual investors. Blue chip stocks are prized for their reliability and often serve as core holdings in diversified portfolios. With a reputation for quality products or services and robust management teams, these companies stand as pillars of strength in the ever-changing world of finance.

**Zero-based budgeting (ZBB)**

- Zero-based budgeting (ZBB) is a budgeting method that breaks away from traditional approaches. Unlike simply adjusting the previous year's budget, ZBB requires justifying every expense from scratch for each new budgeting period. This means every department or program within an organization starts with a "zero base" and must carefully analyze its needs and costs. Each expense is then reviewed and approved based on its necessity and alignment with the organization's strategic goals. This forces a critical evaluation of spending and can help identify areas for cost reduction or optimization. While ZBB can be time-consuming to implement, it promotes a more efficient allocation of resources and ensures every expenditure is well-justified and contributes to the organization's overall objectives.

**"Too big to fail"**

- "Too big to fail" refers to companies, often financial institutions, that are believed to be so large and interconnected that their collapse would cause widespread economic disaster. Governments might intervene with bailouts to prevent such a scenario. The concern is that if a "too big to fail" company fails, its financial troubles would cascade through the system, causing other banks and businesses to fail as well. This could lead to a recession or even a depression. Because of this potential domino effect, governments may

feel compelled to step in and rescue these companies, even though it might reward risky behavior and create an uneven playing field. Examples - SBI, LIC, HDFC, ICICI, etc

## Cloud brightening

- Cloud brightening, also known as marine cloud brightening (MCB), is a proposed geoengineering technique to tackle global warming. The idea is to make marine stratocumulus clouds, common over cooler ocean regions, whiter and more reflective. This would be achieved by spraying fine seawater droplets into the atmosphere. As they evaporate, they leave behind tiny salt particles acting as cloud condensation nuclei. These foster the formation of denser clouds with more and smaller droplets, increasing their ability to reflect sunlight back into space and potentially cool the planet.

## Lunar Day

- Unlike Earth with its day-night cycle caused by rotation, the Moon has a much slower spin on its axis. This means one lunar day, which includes both sunlight and darkness, lasts roughly 29.5 Earth days. As a result, the Moon experiences a very long lunar night, stretching for about 14 Earth days. During this period, temperatures plummet to a frigid  $-280^{\circ}\text{C}$ , far colder than the scorching daytime temperatures. This extreme temperature swing poses a significant challenge for spacecraft and instruments not designed to withstand such harsh conditions.

## Debt Reconstruction

- Debt reconstruction is a lifeline for companies or individuals struggling to manage their existing debt. It involves

renegotiating the terms of those debts with creditors. The goal is to make repayments more manageable by potentially lowering interest rates, extending repayment periods, or even reducing the total amount owed. This helps alleviate financial pressure and allows the debtor to focus on getting back on solid financial footing. It's a win-win scenario as it avoids the disruptions of bankruptcy while giving creditors some assurance of eventual repayment.

## Ethylene Oxide (EtO)

- Ethylene Oxide (EtO) is a colorless gas used in various industrial processes for producing everyday items like antifreeze, polyester clothing, and some medical supplies. It's also a known carcinogen (cancer-causing agent). Concerns about consumer safety and the environmental impact of EtO use are rising, leading to calls for stricter regulations. This debate gained urgency recently when Singapore and Hong Kong banned Indian spice mixes due to alleged EtO contamination, raising questions about food safety standards in India.

## Voter Verifiable Paper Audit Trail (VVPAT)

- Voter Verifiable Paper Audit Trail (VVPAT) is a crucial component of India's electoral process, enhancing transparency and confidence in the integrity of elections. It provides voters with a physical paper trail of their vote, allowing them to verify their choices before casting their ballot electronically. The first use of VVPAT in India was during the 2013 Noksen Assembly by-election in Nagaland. This landmark event marked the debut of VVPAT technology in Indian elections, demonstrating the Election Commission's commitment to modernizing and strengthening the electoral process.

**MODEL QUESTIONS**

- In whose name has the Rajasthan government changed the name of 'Rajiv Gandhi Academic Excellence Scholarship Scheme'?**  
(A) DeendayalUpadhyaya  
(B) Swami Vivekananda  
(C) Veer Savarkar  
(D) Shyama Prasad Mukherjee
- According to the recently released 'Poshan Tractor Report', which district in Rajasthan has the highest number of malnourished children?**  
(A) Jaisalmer (B) Udaipur  
(C) Churu (D) Barmer
- In which district of Rajasthan is the country's first emergency air strip located?**  
(A) Jaisalmer (B) Bikaner  
(C) Sanchore (D) Jodhpur
- Which route will Indian Railways build Rajasthan's first elevated track on?**  
(A) Kota-Delhi  
(B) Jodhpur-Ahmedabad  
(C) Kota-Bhopal  
(D) Jaipur-Delhi
- Recently, what was the position of Amar Singh of Rajasthan in the Asia Oceania Ultra Marathon Championship?**  
(A) First (B) Second  
(C) Third (D) Fourth
- Which district administration in Rajasthan has launched the 'Q Tracker' app for the status and management of voter centers for the Lok Sabha elections?**  
(A) Alwar (B) Kota  
(C) Jalore (D) Jaipur
- Recently 'SindesarKhurd' has become the second largest silver producing mine in the world, in which district of Rajasthan is it located?**  
(A) Udaipur (B) Banswara  
(C) Jhunjhunu (D) Bhilwara
- Recently "Dabri" has become the first rural tourism unit to be registered with the Tourism Department, in which district is it located?**  
(A) Kota (B) Udaipur  
(C) Ajmer (D) Bhilwara
- Recently, the Supreme Court has considered the right against the ill effects of climate change as a fundamental right under which article?**  
(A) Article 13 (B) Article 19  
(C) Article 21 (D) Article 32
- Recently, which Indian company has become the first to have 10,000 MW renewable energy capacity?**  
(A) Tata Power Solar System  
(B) Suzlon Energy  
(C) Adani Green Energy  
(D) JSW Energy
- India has got the right to operate the Sittwe port, in which country is it located?**  
(A) Myanmar (B) Singapore  
(C) Bangladesh (D) Maldives
- The Kachchatheevu island, which was in the news recently, was handed over to which country by the Government of India in 1974?**  
(A) Maldives (B) Bangladesh  
(C) Sri Lanka (D) Myanmar
- The 'Wakhan Corridor', which was in the news recently, belongs to which country?**  
(A) Uzbekistan (B) Myanmar  
(C) Bhutan (D) Afghanistan
- Recently, 3 astronauts were sent to the space station by the 'Shenzhou-18' spacecraft. The spacecraft belongs to which country?**  
(A) South Korea (B) Japan  
(C) China (D) Taiwan
- Igla S Man Portable Air Defense System (MANPADS) has been imported by the Indian Army from which country?**  
(A) France  
(B) United States of America  
(C) Russia  
(D) United Kingdom
- In which country has the world's most powerful laser been activated?**  
(A) Romania (B) Bulgaria  
(C) Azerbaijan (D) Finland
- 'DUSTLIK' joint military exercise is related to which countries?**  
(A) India-Uzbekistan (B) India-Russia  
(C) India-Mauritius (D) India-Sri Lanka
- Recently Bharat Electronics Limited (BEL) has signed an agreement with whom for cooperation in quantum technology?**  
(A) IIT Kanpur (B) IIT Mandi  
(C) IIT Guwahati (D) IIT Bombay

19. What causes the infection of leptospirosis disease, which was in the news recently?  
(A) Fungi (B) Bacteria  
(C) Virus (D) Protozoa
20. Which country of the world will conduct the war exercise 'Mission Victus Haze' in space for the first time?  
(A) Japan  
(B) United States of America  
(C) China  
(D) Russia
21. The first private sector military geospatial satellite in India has been designed by which of the following?  
(A) Tata Advanced System Limited  
(B) Skyroot Aerospace  
(C) AgniKul Cosmos  
(D) Pixel
22. Recently, the "Submersible Platform for Acoustic Characterization and Evaluation (SPACE) Centre has been started in which state for the evaluation of sonar systems?  
(A) Kerala (B) West Bengal  
(C) Maharashtra (D) Tamil Nadu
23. 'IMT TRILAT-24' exercise was conducted between which countries?  
(A) India, Malaysia, Thailand  
(B) India, Mauritius, Tunisia  
(C) India, Maldives, Thailand  
(D) India, Mozambique, Tanzania
24. What is the name of the smart artificial intelligence (A.I.) resource assistant for health launched by the World Health Organization?  
(A) S.A.R.A.H. (B) V.I.T.A.R.A.  
(C) J.A.M.E.S. (D) V.I.N.I.
25. Who has recently won the doubles title in the Miami Open Championship?  
(A) Yuki Bhambri and Matthew Ebden  
(B) RohanBopanna and Matthew Ebden  
(C) SakethMyneni and Matthew Ebden  
(D) SumitNagal and Matthew Ebden
26. Who have recently been awarded with the Best Player award in the men's and women's category respectively in the Hockey India Award 2024?  
(A) Hardik Singh and SalimaTete  
(B) PR Sreejesh and SavitaPoonia  
(C) Hardik Singh and SavitaPoonia  
(D) Harmanpreet Singh and DeepikaSoreng
27. Bindyarani Devi of India won the bronze medal in the World Cup 2024 held in Phuket, Thailand, it is related to which sport?  
(A) Javelin throw (B) Weightlifting  
(C) Archery (D) Shooting
28. Recently, India's men's recurve team won the gold medal in the Archery World Cup Stage 1 held in Shanghai (China). Who among the following was not included in this team?  
(A) TarundeepRai  
(B) RajatChauhan  
(C) Praveen Jadhav  
(D) DheerajBommadevara
29. Which Indian player has recently won the title of Candidates Chess Tournament?  
(A) R. Praggnanandhaa (B) D. Gukesh  
(C) Vidit Gujarati (D) R. Vaishali
30. Recently Scottie Scheffler won the Augusta Masters title in golf, she belongs to which country?  
(A) Russia  
(B) Serbia  
(C) United States of America  
(D) United Kingdom
31. Recently who became the first Indian woman jury member for the Olympic Games?  
(A) Neelima Ghosh (B) P.T. Usha  
(C) M.C. Mary Kom (D) Bilquis Mir
32. Recently who was awarded 'Sportsman of the Year' in the 25th Laureus World Sports Award?  
(A) Rafael Nadal (B) Lionel Messi  
(C) Novak Djokovic (D) ViratKohli
33. Aditi Ashok, who was in the news recently, is related to which sport?  
(A) Archery (B) Shooting  
(C) Chess (D) Golf
34. Recently, whic Indian female player won the silver medal in the Archery World Cup?  
(A) Dola Banerjee  
(B) JyothiSurekhaVennam  
(C) DeepikaKumari  
(D) MuskanKirar
35. Recently India's AnupamaUpadhyay and TharunMannepalli won the women's and men's singles titles respectively in the Kazakhstan International Challenge Tournament. They are related to which sport?  
(A) Tennis (B) Table Tennis  
(C) Shooting (D) Badminton

36. Indian player Sumit Nagal, who was in the news recently, is related to which sport?  
 (A) Badminton (B) Tennis  
 (C) Golf (D) Hockey
37. Which space mission was recently awarded with the prestigious 'John L Jack Swigert Award' of the American Space Foundation?  
 (A) SLIM Mission, Japan  
 (B) Luna-25 Mission, Russia  
 (C) Chandrayaan-3 Mission, India  
 (D) Rashid Mission, United Arab Emirates
38. Which Indian environmentalist has been selected for the 'Goldman Environmental Prize 2024', called the 'Green Nobel'?  
 (A) Medha Patkar (B) Sadhguru  
 (C) Sunita Narayan (D) Alok Shukla
39. For which reason has Manoj Panda been in the news recently?  
 (A) New Comptroller and Auditor General  
 (B) Chairman of the National Scheduled Tribes Commission  
 (C) Member of the 16th Finance Commission  
 (D) New Vice Chairman of NITI Aayog
40. Who has recently become the new Chief of the Indian Navy?  
 (A) Vivek Ram Chaudhary  
 (B) Anil Chauhan  
 (C) Dinesh Kumar Tripathi  
 (D) R. Hari Kumar
41. Who has recently been appointed as the Managing Director of the International Monetary Fund (IMF)?  
 (A) Gita Gopinath  
 (B) Soumya Swaminathan  
 (C) Kristalina Georgieva  
 (D) Ruchira Kamboj
42. Recently Judith Suminwa Tuluka has become the first woman Prime Minister of which country?  
 (A) Philippines (B) Vietnam  
 (C) Congo (D) Nigeria
43. Recently Sheikh Ahmed Abdullah Al-Ahmad has been appointed as the new Prime Minister of which country?  
 (A) Kuwait (B) Thailand  
 (C) Malaysia (D) Qatar
44. Recently, Abdel Fatah al-Sisi has taken oath as the President of which country for the third time?  
 (A) Jordan (B) Sudan  
 (C) Libya (D) Egypt
45. Where will India's first tri-service common defense station be established?  
 (A) Mumbai (B) Sullur  
 (C) Guwahati (D) Chennai
46. Which of the following institutions is not associated with the development of India's first indigenous gene therapy 'CAR-T cell therapy' for the treatment of cancer?  
 (A) IIT Bombay  
 (B) Serum Institute of India  
 (C) Tata Memorial Hospital  
 (D) Immuno ACT
47. Where will the world's largest renewable energy project be established in India?  
 (A) Khavda, Kutch (Gujarat)  
 (B) Fatehgarh, Jaisalmer (Rajasthan)  
 (C) Narketpally, Nalgonda (Telangana)  
 (D) Khedi, Bhopal (Madhya Pradesh)
48. Where was the first 'Parivartan Chintan' conference of the three armies organized by the Union Defense Ministry?  
 (A) Visakhapatnam (B) Bengaluru  
 (C) New Delhi (D) Bhopal
49. Where have the fossils of the giant snake "Vasuki" been found recently in India?  
 (A) Jharkhand (B) Gujarat  
 (C) Madhya Pradesh (D) Telangana
50. Which operation is being carried out against the Naxalites currently?  
 (A) Operation Kaveri  
 (B) Operation Prahar  
 (C) Operation Cactus  
 (D) Operation Pawan

### Answer Key (April 2024)

1.	B	11.	A	21.	A	31.	D	41.	C
2.	B	12.	C	22.	A	32.	C	42.	C
3.	C	13.	D	23.	D	33.	D	43.	A
4.	D	14.	C	24.	A	34.	C	44.	D
5.	A	15.	C	25.	B	35.	D	45.	A
6.	D	16.	A	26.	A	36.	B	46.	B
7.	A	17.	A	27.	B	37.	C	47.	A
8.	A	18.	B	28.	B	38.	D	48.	C
9.	C	19.	B	29.	B	39.	C	49.	B
10.	C	20.	B	30.	C	40.	C	50.	B