

National and International Weekly Current Affairs 18 to 24 March 2024

National News

India's Atmospheric Research Testbed in Central India (ART-CI) Phase 1 Inauguration

- **Location:** Silkheda, Sehore district, 50 km northwest of Bhopal, Madhya Pradesh.
- **Funded by:** Ministry of Earth Sciences (MoES).
- **Purpose:** Study cloud processes during Indian monsoons in Monsoon Core Zone (MCZ).
- **Focus:** Understanding crucial cloud processes during monsoon season.

Need for ART-CI:

- Indian monsoon complexity impacts agriculture and economy.
- Lack of comprehensive cloud process data hinders predictions.
- ART-CI addresses need for specialized monsoon research infrastructure.

Madhya Pradesh's Strategic Importance:

- Silkheda strategically located along major rain-bearing synoptic systems' path.
- Clear environment with minimal pollutants ideal for meteorological research.
- Suitable for installing sensitive, high-end meteorological instruments.
- Geographical positioning and environmental quality give Silkheda a strategic advantage for meteorological research.

Maharashtra State News

Ordnance Factories Day

- Ordnance Factories Day is celebrated on March 18th every year in India.
- It commemorates the establishment of the first Ordnance Factory in Cossipore, Kolkata, in 1801.

About:

- The day highlights the contributions of the Ordnance Factories Board (OFB) to India's self-reliance in defense equipment.
- The OFB is a crucial organization under the Ministry of Defence.

- It is responsible for manufacturing a wide range of weaponry and ammunition for the Indian Armed Forces.
- Often referred to as the "Fourth Arm of Defence", the OFB plays a vital role in national security.

Theme:

- Ordnance Factories Day 2024 theme is "Operational Efficiency, Readiness, and Mission Accomplishment in the Maritime Domain".

RRP Electronics to set up first semiconductor plant in Maharashtra

- RRP Electronics has tied up with a consortium of European companies to set up a one-of-its-kind semiconductor facility in Maharashtra.

Key Points:

- The company, which will invest ₹5,000 crore over the next five years, plans to lay the foundation stone in its new premises of 25,000 sq ft on March 23.
- In the second phase, it will invest another ₹5,000 crore.

About:

- RRP Electronics will fast-track the work on the project and commence the Outsourced Semiconductor Assembly and Testing (OSAT) with adequate support of technology partners.
- The facility will also have an R & D centre to incorporate the latest developments in the field.
- The company will also seek support from the Maharashtra Government to set up the unit comprising multi lines of OSAT fab foundry and manufacturing.

Maharashtra to vote in five phases for first-time ever

- For the first time ever, Lok Sabha elections to the 48 seats in Maharashtra will be held in five phases beginning on April 19 and ending on May 20th when the six seats in Mumbai go to the polls.

Key Points:

- In **2019**, the polls were conducted over **four phases** while in **2014**, there were **three phases**.
- The **first phase** will begin in the **Vidarbha region**.
- The **by-poll** for the **Akola West assembly seat** will also be held during the **second phase of voting**.
- The decision about the **number of phases** has been taken by the **Election Commission of India (ECI)**.

Maharashtra becomes first Indian state to buy land in Kashmir to construct 'Bhawan' for tourists

- **Maharashtra** is set to become the first Indian state to buy land in union territory **Jammu and Kashmir** in order to construct a tourist facility for the state's people.

About:

- The **Maharashtra Bhawan** will come up on **2.5 acres of land** at **Ichgam, near Srinagar airport**.
- The **Jammu and Kashmir government** has approved the transfer of land to the **Maharashtra government** for **₹8.16 crore**.
- The process to **purchase land** was initiated after **Maharashtra Chief Minister Eknath Shinde** visited the union territory last year in **June** and met **Governor Manoj Sinha**.

Global Recycling Day

- **Global Recycling Day** is an annual event on **March 18** that helps to acknowledge that **recycling is a key part of a circular economy** that helps to protect the environment and **Earth's natural resources**

History:

- It was the **brainchild of the Bureau of International Recycling**, with the first announcement coming in **2015** by its **president, Ranjit Singh Baxi**.
- The **inaugural celebration** followed a few years later in **2018**.
- The day is now **recognized by the United Nations** as well.

About:

- The year **2024** marks the **7th Global Recycling Day**
- **Global Recycling Day 2024** focuses on the theme **#RecyclingHeroes**.

Survey to identify divyangs in 30 districts of state

- The **Persons with Disabilities (PwDs) welfare department** of the state ordered a survey to identify **divyangs** in different districts of **MH**.
- A **total of 21 disabilities** have been identified based on which the population of **divyangs** will be recorded.
- While sanctioning **Rs 25 lakh** for the survey work, additional secretary **Adhikrao Budhe** has asked for **accomplishing the survey work** within the next two months.

About:

- The exercise will be carried out as per enabling provisions of the **Rights of Persons with Disabilities Act, 2016 (RPWD Act)**
- It was passed by the **Parliament** in the year **2016** and implemented from **2017**.

MH allocates Rs 50 crore for establishment of welfare board for auto, taxi drivers

- The state government has announced the establishment of a **welfare board for auto rickshaw and metered taxi drivers**
- The state allocated **Rs 50 crore** for the purpose.
- The welfare board will have the **headquarters in Mumbai**.

Key Points:

- In addition to the establishment of a welfare board, **drivers and their relatives can also avail benefits from extended schemes** under the welfare board.
- Schemes such as **health insurance, scholarships for the drivers' children, and financial insurance up to Rs 50,000** will be listed under the welfare board.

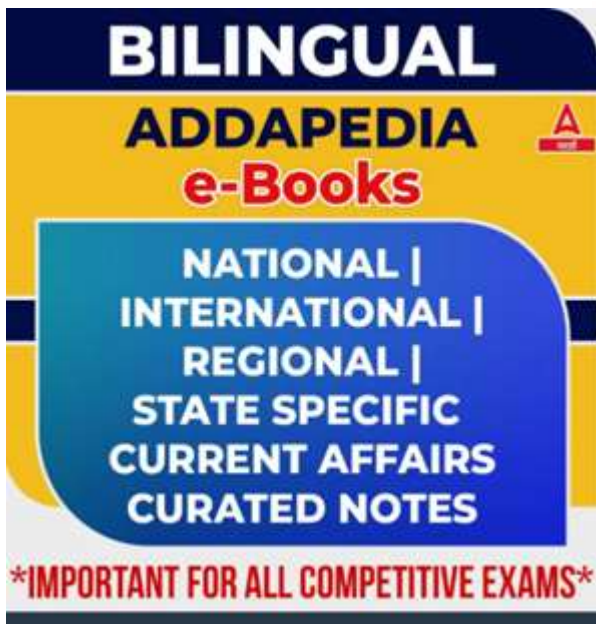
Schools in Maha to be graded from A+ to C

- The state education department has ordered that schools in **Maharashtra**, like higher educational institutions, will now be **given grades from A+ to C** to indicate the quality of education being imparted by them.
- The schools will have to **display these grades and the state, too, will develop a dedicated website of aggregated data** on these gradings so that the information is easily accessible to parents.

- Furthermore, schools will have to be **evaluated (graded) periodically based on their performance** under various parameters such as **basic infrastructure, teaching-learning standards, safety and security of children, and campus inclusiveness and gender equality**

Key Points:

- The state school education department has **introduced the School Quality Assurance and Accreditation Framework (SQAAF)**.
- This framework **outlines a set of parameters for evaluating schools**.
- By acting as a benchmark, **SQAAF helps schools identify areas of strength and weakness, ultimately guiding them towards continuous improvement**.
- This **aligns with the National Education Policy's (NEP) emphasis on enhancing educational quality**.



VU collaborates with IIT-B to set up innovation cell

- Vellore Institute of Technology (VIT) has **collaborated with the Indian Institute of Technology Bombay (IIT-B) to establish an innovation cell**.
- This cell will **focus on fostering a culture of creativity and entrepreneurship among students and faculty at both institutions**.
- The innovation cell will **provide resources and support for developing new ideas and bringing them to market**.

- It is expected to **play a key role in driving technological advancements and creating new businesses**.

International Day of Happiness

- Every **March 20th**, the world **celebrates the International Day of Happiness**.
- It was established by the **United Nations in 2012**
- It recognizes **happiness as a fundamental human goal** and the importance of well-being for all.
- It **highlights the link between happiness, sustainable development, and a balanced approach to economic growth**.
- The world **first celebrated the International Day of Happiness on March 20th, 2013**.

Theme 2024:

- This year's theme is- **“Reconnecting for Happiness: Building Resilient Communities”**.

Maharashtra introduces dress code for school teachers; t-shirts, jeans not allowed

- The Maharashtra government introduced a **new dress code for teachers in the state**.
- **T-shirts, jeans, and shirts with designs or pictures are no longer allowed**.

About:

- Schools have the **flexibility to choose specific colors**, but recommendations include **light-colored shirts and dark trousers for male teachers and sarees or salwar kameez for female teachers**.
- This dress code **applies to all schools, including private institutions**.
- Also, the government **also allows teachers to use the prefix "Tr" before their names, similar to doctors and lawyers**.

AI-based chatbot to help power consumers

- Maharashtra State Electricity Distribution Co Ltd (MSEDCL) has **launched a chatbot service, 'Urja', based on artificial intelligence (AI) to help consumers with grievance redressal, bill payment and new connection**.
- The service is **available on MSEDCL's website www.mahadiscom.in and will soon be on the mobile phone application as well**.

- The chatbot will come handy as many consumers face issues with the services provided.

Cabinet okays AI use by cops, ₹23cr for 'MARVEL' project

- The state cabinet approved a proposal for the use of artificial intelligence in the police force.
- A special purpose vehicle (SPV) is to be set up for the creation of artificial intelligence in the police force.
- To be called Maharashtra Advanced Research and Vigilance for Advanced Law Enforcement (MARVEL), govt will invest Rs 23 crore in the project and partner with Indian Institute of Management, Nagpur, and Pinaka Technologies.

World Oral Health Day

- World Oral Health Day is observed annually on March 20th
- This day raises awareness about the critical role oral hygiene plays in overall health.
- This day aims to empower individuals with the knowledge and tools to maintain good oral health through:
 - Brushing and flossing regularly
 - Limiting sugary drinks and unhealthy foods
 - Scheduling regular dental checkups

Theme:

- The 2024 theme is "A Happy Mouth is a Happy Body"
- It emphasizes the connection between oral health and well-being.

International Day of Forests

- The International Day of Forests is celebrated every year on 21st March
- This day is dedicated to raising awareness about the vital role forests play in our lives.

About:

- International Day of Forests was established by resolution of the United Nations General Assembly on November 28, 2013.

Key points:

- Forests are viewed as the lungs of the planet.

- Trees filter the air by decreasing CO2 and helping maintain a balance in the environment.
- They are fundamental for sustaining life on the planet and play a significant part in battling climate change.
- In any case, the danger of deforestation and degradation threatens the survival of forests around the world.

Theme:

- This year's theme is "Forests and Innovation: New Solutions for a Better World."
- It highlights the critical role of innovation and technology in protecting our forests.

43 Maharashtra colleges get a grant of Rs 5 cr each, 2 from Mumbai

- 43 institutions in the state will receive the grant of Rs 5 crore each under the Pradhan Mantri Uchcharat Shiksha Abhiyan (PM-USHA).
- Dadar's Kirti College and Chembur's Vivekanand Education Society's College of Arts, Science and Commerce are among them
- Additionally, four districts have been identified for gender inclusion and equity initiatives, for which almost Rs 10 crore each have been allocated.

About:

- PM-USHA is a centrally sponsored scheme that aims to provide strategic funding to eligible state higher educational institutions.
- The scheme was launched in 2013 and is currently in its second phase.

The objectives of PM-USHA are to:

- Improve the quality of teaching-learning processes in order to produce employable and competitive graduates, post-graduates and PhDs.
- Increase the Gross Enrolment Ratio (GER) in higher education.
- Promote equity and inclusion in higher education.
- Strengthen the research and innovation ecosystem in higher education institutions.

Maha govt sanctions ₹2cr for Belagavi, Bidar

- Maharashtra govt has sanctioned a **special fund of Rs 2 crore** for various works in the border districts- Belagavi and Bidar.
- The fund has been sanctioned to various organizations and trusts.
- **Rs 25 lakh each** has been sanctioned to construct Maharashtra sanskritik bhavans in Nippani and Bidar towns
- Also, **Rs 25 lakh** has been sanctioned for the construction of a community hall at Raghunath Maharaj Education Institute in Bidar.
- Another **Rs 25 lakh** has been allotted to Satyam Shivam Sundaram Development Association in Bidar.
- Funds were also approved for various service organizations to set up libraries, build classrooms and halls and purchase medical vans.

MH Govt offers free shooting at Government locations; introduces single-window clearance for filmmakers

- The Maharashtra government has introduced two new initiatives to promote filmmaking in the state
- These initiatives are expected to make Maharashtra a more attractive destination for filmmakers and boost the state's film industry.

Initiatives

Free Shooting at Government Locations:

- Filmmakers can now shoot at government locations for free.
- This will help reduce production costs and provide filmmakers with more diverse shooting locations.

Single-Window Clearance:

- The government has also introduced a single-window clearance system for filmmakers.
- This will streamline the permission process and make it easier for filmmakers to get the approvals they need.

World Sparrow Day

- World Sparrow Day is celebrated on **March 20th every year**
- It is dedicated to raising awareness about the importance of conserving sparrows and

other common birds in urban environments.

About:

- The **Nature Forever Society of India**, along with other organizations around the world, started **World Sparrow Day** in 2010.
- The idea hatched during a casual discussion at the **Nature Forever Society** in India, founded by conservationist **Mohammed Dilawar**.
- Inspired by efforts to save the house sparrow, they proposed a day to raise awareness about the decline of these common birds.

Theme 2024:

- The theme for World Sparrow Day 2024 is "**I Love Sparrows**".
- This theme highlights the special connection between humans and sparrows.

IUCN: Endangered

World Water Day

- **World Water Day** is an annual United Nations observance day held on **22 March**
- It highlights the importance of freshwater and advocates for the sustainable management of freshwater resources.

About:

- The first World Water Day was celebrated in **1993**
- The theme for the first World Water Day in 1993 was 'Water for Life.'

Theme 2024:

- This year's theme is "**Water for Peace.**"
- It highlights the potential of water as a resource for cooperation and stability.
- By managing water resources sustainably and ensuring equitable access, we can foster peace and prosperity for all.

SDG:

- **Clean water and sanitation** is **SDG 6** out of 17 SDGs.

41% water in Maharashtra's dams

- Despite recent rains, Maharashtra's dams only hold around **41%** of their total water storage capacity.
- This marks a significant decline from the **56.5%** capacity recorded last year at the same time.

- This is a significant concern, as **over 70% of the state's talukas are facing drought conditions.**
- The arid **Marathwada region, known for its water scarcity, is particularly hard-hit, with dam water storage plummeting to 21.3% of capacity compared to 46% during the same period last year.**

ICMAI Sambhajinagar chapter wins award at national level

- The **Institute of Cost Accountants of India (ICMAI), local chapter, has won the award for the best chapter of the year for 2022-23.**
- This prestigious **recognition was presented at the Western India Regional Cost Conference-2024 held in Indore, Madhya Pradesh.**
- The chapter's dedication to **servicing students, members, and the wider community for the past 35 years in the Marathwada and Khandesh regions was highlighted.**
- Their efforts to **promote the cost and management accountancy profession and raise awareness about career prospects in both government and private sectors were acknowledged.**

BMC gets a new municipal commissioner

- **IAS Bhushan Gagrani was appointed the new Municipal Commissioner of Brihanmumbai Municipal Corporation (BMC)**
- This appointment follows the **Election Commission of India's directive for the Maharashtra government to fill the position.**
- Gagrani, previously serving as **Additional Chief Secretary in the Chief Minister's Office, brings experience in urban development to the role.**

Pune Auto Expo to showcase vintage vehicles used in World War II

- The upcoming **Pune Auto Expo, happening April 18th to 21st at Creativity in Yerwada, will feature a special exhibit: vintage vehicles used in World War II**
- This **"Vintage and Classic" pavilion promises a unique opportunity to see these historic machines alongside other classic cars from Pune's past.**

- Motorcycles such as the **Norton 500 and vintage editions of Volkswagen, which played crucial roles during the 1930s-1940s war period, will be exhibited in Pune next month.**
- The expo will **also boast vintage cars once owned by prominent figures.**

'Nagmoney 2024' to bring alive history through coins

- The **Numismatic Research Institute (NRI) Nagpur is once again organizing a three-day 'All India Competitive Numismatic Exhibition' called 'Nagmoney 2024' at Ramgopal Maheshwari Sanskrutik Sabhagruha on Jan 26, 27, and 28.**
- The Institute aims at **preserving the ancient heritage, culture and history through the medium of coins to make people aware of the importance of Numismatics**

Did you Know?

- **Numismatics is the study of coins**

Martyrs' Day

- In India, **March 23rd is commemorated as Martyrs' Day, also known as Shaheed Diwas.**
- This day specifically honors the sacrifices of **three legendary freedom fighters: Bhagat Singh, Sukhdev Thapar, and Shivaram Rajguru.**

About:

- These **three revolutionaries were hanged by the British Raj in 1931 for their role in resisting British rule.**
- Martyrs' Day serves as a **day to remember all those who fought and died for India's freedom.**
- It's a time to express gratitude for their sacrifices and reflect on the importance of freedom.

Note:

- **January 30th is also celebrated as Martyr's day.**
- It commemorates the **assassination of Mahatma Gandhi, the "Father of the Nation," in 1948.**

Climate change risk: Study

- A recent study suggests **temperatures during Holi could soar above 40°C due to climate change.**
- This rise in scorching temperatures is a **significant increase compared to the 1970s.**

About:

- In the **1970s, only three states** in India had a **more than 5% chance of seeing temperatures cross 40 degrees Celsius during Holi—Maharashtra, Bihar, Chhattisgarh.**
- Today, that number has expanded to include **six more states, including Rajasthan, Gujarat, Telangana, Madhya Pradesh, Odisha, and Andhra Pradesh.**
- The state with the **highest probability of crossing 40C in late March is Maharashtra, with a 14% likelihood.**
- The **analysis by Climate Central highlights a troubling trend: hotter springs with summers arriving earlier and lasting longer.**
- This finding underscores the urgency of addressing climate change to protect traditional celebrations and public health.

Note:

- The warming trends were **detected in a new analysis from US-based Climate Central (an independent group of scientists & communicators)** that looked at **monthly average temperatures in the months of March and April since 1970.**

JSW Energy buys Rel Power's wind assets for ₹132cr

- In a move to **expand its renewable energy portfolio, JSW Energy, through its subsidiary JSW Renewable Energy, has agreed to purchase a 45 MW wind power project from Reliance Power for ₹132 crore.**
- The project is **located in Vashpet, Maharashtra, and has a power purchase agreement with Adani Electricity.**
- This acquisition strengthens JSW Energy's position in the renewable energy sector and aligns with India's growing focus on sustainable power generation.
- The funds from the sale will be used by Reliance Power to repay debt

World Poetry Day

- **World Poetry Day is celebrated annually on March 21st**
- It is a day to **celebrate the beauty and significance of poetry.**
- It was **established by UNESCO in 1999**

It aims to:

1. **Promote linguistic diversity:**
 - Poetry uses language in creative ways, highlighting the richness of different cultures and languages.
2. **Support endangered languages:**
 - World Poetry Day brings attention to languages at risk of disappearing, ensuring their voices are heard.
3. **Honor poets and revive traditions:**
 - It's a day to recognize the contributions of poets and encourage the oral tradition of poetry recitals.
4. **Make poetry accessible:**
 - World Poetry Day promotes the reading, writing, teaching, and enjoyment of poetry for everyone.

Theme:

- The theme for World Poetry Day 2024 is **"Standing on the Shoulders of Giants."**

World Down Syndrome Day

- **World Down Syndrome Day is celebrated annually on March 21st**
- It is a day to **raise awareness about Down syndrome and celebrate the contributions of people with Down syndrome.**
- The **date, 3/21, reflects the triplication (trisomy) of the 21st chromosome that causes Down syndrome.**
- This day was **officially recognized by the United Nations in 2012.**

About:

- Down's syndrome is a **genetic disorder** caused when **abnormal cell division** results in **extra genetic material from chromosome 21 (trisomy 21).**
- This extra copy **changes how a baby's body and brain develop.**
- It can cause **both mental and physical challenges during their lifetime.**

Theme:

- This year's **theme is 'End The Stereotypes'.**

World Meteorological Day

- World Meteorological Day is celebrated on March 23rd every year.
- It marks the anniversary of the establishment of the World Meteorological Organization (WMO) in 1950.
- The day highlights the importance of weather and climate information for society's safety and well-being.

Theme:

- This year's theme is "At the Frontline of Climate Action."
- It emphasizes the crucial role of weather observation, forecasting, and climate science in understanding and addressing climate change.

International News

International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)

India hosts 41st IPHE meeting, focusing on accelerating the hydrogen economy.

Key points:

- Established in 2003, the IPHE is an inter-governmental alliance currently comprising 23 member countries and the European Commission.
- Its primary objective is to facilitate and expedite the transition to clean and efficient energy and mobility systems utilizing hydrogen and fuel cell technologies.
- The IPHE serves as a platform for organizing and executing international research, development, demonstration, and commercial utilization activities related to hydrogen and fuel cells.
- Moreover, the IPHE informs various stakeholders, such as policymakers and the public, about the benefits and challenges associated with establishing widespread commercial hydrogen and fuel cell technologies.
- Members: Australia, Canada, European Commission, India, Netherlands, Switzerland, Austria, Chile, France, Italy, Norway, UAE, Belgium, China, Germany, Japan, South Africa, United Kingdom, Brazil, Costa Rica, Iceland, South Korea, Singapore, and the United States.

Economy News

World Monuments Fund 2025

- Conservationists propose Kazhuveli watershed, Tamil Nadu, for inclusion in World Monuments Fund Watch 2025.
- The historic Eri network in the region, vital for agriculture, is in decline and requires urgent protection.

Significance:

- Nomination-based initiative linking local heritage preservation with global awareness and action.
- Aims to preserve locations in need, addressing issues like cultural heritage and environmental sustainability.

About World Monuments Fund (WMF):

- A private, global non-profit organization dedicated to protecting historic architectural and cultural heritage sites worldwide.
- Founded in 1965, headquartered in New York City, WMF partners with local communities and governments to preserve significant sites through donations and matching funds.

Schemes and Committees News

Developing Countries Trading Scheme (DCTS)

- The Directorate General of Foreign Trade (DGFT) has issued a trade notice highlighting the need for Indian exporters to follow new UK rules under the Developing Countries Trading Scheme (DCTS) to avail duty concessions on shipments to the UK.

Key features:

- The DCTS benefits 65 developing and least developed countries, excluding China. Key features include reduced tariffs on various Indian products and simplified qualification processes with clear origin rules.
- India is in the "Standard Preferences" category under DCTS, enjoying benefits though not as extensive as those granted to the poorest countries.
- Products exceeding a specific export limit to the UK don't receive lower tariffs and are removed from the scheme.

- The new 6% limit on the UK's total imports affects some Indian products like textiles, with £748 million worth of exports now taxed at the regular rate instead of the preferential rate under DCTS.

Kisan Credit Card (KCC) Fisheries scheme

- The Kisan Credit Card (KCC) Fisheries scheme has been integrated into the JanSamarth Portal by the Department of Fisheries.
- This integration aims to enhance credit accessibility for fishers, fish farmers, and stakeholders nationwide.

JanSamarth Portal:

- JanSamarth is an innovative online platform that facilitates direct interactions between lenders and beneficiaries.
- It enables citizens to access loans under specific Central government schemes.
- In 2018-19, the Kisan Credit Card (KCC) facility was extended to fishers and fish farmers to meet their working capital requirements.
- The scheme covers various farmer categories, including individuals, joint borrowers, Joint Liability Groups, and Self Help Groups.
- It offers an annual interest subvention of 2%, along with an additional subvention of 3% for timely repayment.

Kisan Credit Card (KCC) Scheme

- The Kisan Credit Card (KCC) scheme was introduced in 1998 for issue of Kisan Credit Cards to farmers on the basis of their holdings for uniform adoption by the banks so that farmers may use them to readily purchase agriculture inputs such as seeds, fertilizers, pesticides etc. and draw cash for their production needs.

Defense News

EX TIGER TRIUMPH – 24

- In alignment with the established partnership between India and the US, a bilateral tri-Service Humanitarian Assistance and Disaster Relief (HADR) Exercise, Tiger Triumph24, is set to take place on the Eastern Seaboard from 18 to 31 March 2024.

The exercise will involve:

- Indian Navy Ships with integral helicopters and landing crafts embarked
- Indian Navy aircraft
- Indian Army personnel and vehicles
- Indian Air Force aircraft and helicopters
- Rapid Action Medical Team (RAMT)
- The US will be represented by US Navy Ships with embarked troops of the US Marine Corps and US Army.
- The primary objectives of the exercise include developing interoperability for conducting HADR operations and refining Standard Operating Procedures (SOPs) to enable rapid and smooth coordination between the forces of both countries.

AH-64E Apache attack helicopters

- In a significant boost to its combat capabilities, the Indian Army Aviation Corps inaugurated its first unit of AH-64E Apache Attack Helicopters at Jodhpur Air Base.
- The AH-64E Apache Guardian, known as the world's most advanced multi-role combat helicopter, is set to enhance the aerial prowess of the Indian Army.

Key points:

- Manufactured by Boeing in the United States, the AH-64E Apache Guardian has been acquired by several countries, including India, Egypt, Greece, Indonesia, Israel, Japan, South Korea, Kuwait, Netherlands, Qatar, Saudi Arabia, Singapore, UAE, and the UK.
- In February 2020, India inked a deal with Boeing for six AH-64E helicopters for the Army, with an additional six contracted later.
- Tata Boeing Aerospace Limited (TBAL), a joint venture between Boeing and Tata Advanced Systems Ltd. (TASL), manufactures fuselages for the AH-64 Apache at its Hyderabad facility since 2018.
- TBAL aims to become the sole producer of AH-64 fuselages globally, sourcing 90% of parts from Indian suppliers.

Significance:

- The AH-64E Apache boasts an open systems architecture for seamless integration of advanced communications, navigation, sensor, and weapon systems.

- Its enhanced thrust, lift capabilities, joint digital interoperability, improved survivability, and cognitive decision-aiding features make it a formidable asset in combat scenarios.

IMT Trilateral Exercise 2024

- **INS Tir and INS Sujata** are set to join the **second edition of the India Mozambique Tanzania (IMT) Tri Lateral (TRILAT) Exercise**, a joint maritime exercise scheduled from **21-29 Mar 24**.
- The first edition of the IMT TRILAT exercise, held in Oct 22, saw **INS Tarkash participating with the Tanzanian and Mozambique Navies**.

Key points:

- The exercise's current edition is **divided into two phases**.
- The **harbour phase, scheduled from 21-24 Mar 24**, will see **Naval ships Tir and Sujata** engaging with the respective Navies at the ports of Zanzibar (Tanzania) and Maputo (Mozambique).
- This phase will start with a **Planning Conference, followed by joint harbour training activities such as Damage Control, Fire Fighting, Visit Board Search and Seizure procedures, Medical Lectures, Casualty Evacuation, and Diving operations**.
- The **sea phase is scheduled from 24-27 Mar 24**, focusing on countering asymmetric threats, Visit Board Search and Seizure procedures, boat handling, manoeuvres, and firing exercises.
- **A joint EEZ surveillance is also planned during the sea phase. The exercise will conclude with a joint debrief scheduled at Nacala (Mozambique).**

Ranks & Reports News

Grievance Redressal Assessment Index

The Ministry of Home Affairs has **consistently ranked among the top 10 ministries in 2023-24 in the Grievance Redressal Assessment Index (GRAI)**, performing well in all 15 specified indicators.

Key points:

- **The Department of Administrative Reforms and Public Grievances (DARPG) conceived and designed GRAI.**

- **Objective:** GRAI aims to offer a comparative view of organizations and highlight their strengths and areas for improvement in grievance redressal mechanisms.
- **Parameters:** A comprehensive index was used to rank based on four dimensions: **Efficiency, Feedback, Domain, and Organizational Commitment**.
- **Data Source:** Data from the **Centralised Public Grievance Redressal and Management System (CPGRAMS)**

CPGRAMS:

- Centralized Public Grievance Redress and Monitoring System (CPGRAMS) is an **online platform available to the citizens 24x7** to lodge their grievances to the public authorities on any subject related to service delivery.
- It is a **single portal connected to all the Ministries/Departments of Government of India and States**.
- Every Ministry and States have role-based access to this system. CPGRAMS is also accessible to the citizens through standalone mobile application downloadable through Google Play store and mobile application integrated with **UMANG**.

HbA1C test

- According to **2018 ICMR guidelines**, individuals over **30** should be screened for diabetes due to India's significant diabetes burden.
- India has around **10.13 crore diabetic individuals and 13.6 crore pre-diabetics, accounting for 17% of global diabetes cases**.
- Over **35%** of Indians have hypertension, and nearly **40%** have abdominal obesity, increasing diabetes risk.
- Prevention and early detection are crucial in managing this health issue.

HbA1C Test Functionality

- **Test Principle:** Measures the **percentage of red blood cells coated with sugar (glycated hemoglobin) to diagnose and manage pre-diabetes and diabetes**.
- **Test Accuracy and Approval:** Discovered in **1955**, correlated with diabetes in 1968, approved by the ADA in 2009, and endorsed by WHO in 2011 with improved accuracy from 1993 to 2012.

World Air Quality Report 2023

- According to the IQAir's (Swiss air quality monitoring body) 2023 World Air Quality Report, India was declared as the third-most polluted country, following Bangladesh and Pakistan.
- With an average annual PM2.5 concentration of 54.4 micrograms per cubic meter, India's air quality is a severe concern.
- In 2022, India was ranked the eighth-most polluted country.

Top 50 Polluted Cities Feature Indian Metropolitans

- Out of the report's list of the top 50 most polluted cities, a staggering 42 cities were located in India.
- Begusarai in Bihar topped the chart as the most polluted metropolitan area in 2023, followed by Guwahati and Delhi.

Other Significant Findings of the Report

- The report highlighted the air quality data gathered from 7,812 locations in 134 countries.
- The top five most polluted countries in 2023 were Bangladesh, Pakistan, India, Tajikistan, and Burkina Faso.
- Seven countries achieved the WHO annual PM2.5 guideline of an average of 5 µg/m³ or less, namely Australia, Estonia, Finland, Grenada, Iceland, Mauritius, and New Zealand.
- Africa remains deprived of air quality data, with one-third of the population lacking access.
- Nine out of the top ten most polluted cities belong to India.
- China recorded a 6.3% PM2.5 rise in 2023, amounting to 32.5 micrograms after experiencing declines for five consecutive years.
- Canada emerged as the most polluted country in North America for the first time, with the region's 13 most polluted cities.

Gender Pay Gap Report

- The World Bank's recent report highlights a persistent global issue: women continue to earn significantly less than men.
- The gap is often cited as 77 cents for every dollar earned by men, known as the "gender pay gap."

Key points:

Definition: The International Labour Organization (ILO) defines the gender pay gap as the difference between the average wage levels of all working women and men.

Focus: The metric focuses on overall wage differences, not on comparing the pay of men and women in identical roles.

Study Finds Spring Season 'Disappearing' in Many Indian States

- Climate Trends agency analyzed meteorological records from 1970 to present for 33 Indian States and Union Territories.

Key observations:

Warming Trends:

- All regions experienced net warming during winter.
- Manipur had the largest change in temperature since 1970 (2.3°C), while Delhi had the smallest (0.2°C).
- Winter is the fastest warming season for 12 out of 34 regions analyzed.

Regional Variations:

- Southern regions experienced strong warming in December and January.
- Northern regions had weaker warming and even cooling during December and January.
- All regions warmed in February, with Jammu and Kashmir experiencing the highest warming (3.1°C) and Telangana the lowest (0.4°C).

About Jet Streams:

- Definition: Western disturbances refer to extratropical storm systems that originate in the Mediterranean region and move eastwards across the Middle East and into the Indian subcontinent.
- Impact on Weather: These disturbances bring precipitation, primarily in the form of rain or snow, to various parts of the Indian subcontinent, especially the northern and western regions, during the winter months.
- Winter Precipitation: In India, western disturbances are crucial for bringing winter rainfall to regions like northwest India, including Punjab, Haryana, Rajasthan, and parts of Uttar Pradesh and Jammu and Kashmir.
- Temperature Regulation: They often lead to a decrease in temperature, bringing relief from winter dryness and contributing to agricultural activities by replenishing soil moisture.

- Jet Stream Connection: Western disturbances are closely associated with changes in the polar jet stream, influencing their intensity and trajectory across the Indian subcontinent.

Meteorological Factors:

- Meteorologists attribute warming in **southern India and reduced rainfall in the north during winter to changes in Western Disturbances and the jet stream pattern.**

Implications:

- Northern India may experience abrupt transitions from cool winter-like temperatures to warmer conditions in March.
- Rajasthan showed the largest jump in warming rates from January to February (2.6°C higher).
- Nine States and territories, including Delhi and Uttar Pradesh, showed a significant January-February temperature difference, contributing to the disappearance of spring-like conditions.

World Happiness Report

- In the **World Happiness Report 2024**, **Finland ranked first for the seventh consecutive year, followed by Denmark, Iceland, Sweden, and Israel in the top five.**

Key points:

- India ranked 126th, while China, Nepal, Pakistan, Myanmar, Sri Lanka, and Bangladesh secured 60th, 93rd, 108th, 118th, 128th, and 129th spots, respectively.
- The World Happiness Report considers six variables: GDP per capita, social support, healthy life expectancy, freedom, generosity, and corruption.

Age, Education, and Gender: Factors Affecting Happiness

- **Older people in India** were found to have higher life satisfaction than younger individuals.
- **However, women reported lower life satisfaction than men, with the gender gap widening with age.**
- **Education and caste played crucial roles**, as older individuals with secondary or higher education and those from higher social castes experienced higher life satisfaction compared to those without formal education or from scheduled castes and tribes.

Happiness Across Age Groups: Global Insights

- The report found that **Lithuania, Israel, Serbia, Iceland, and Denmark were the top five countries for happiness in young**

people (aged 30 and below), while **Denmark, Finland, Norway, Sweden, and Iceland led the rankings for happiness in older individuals (aged 60 and above).**

State of Global Climate Report 2023

The World Meteorological Organisation (WMO) published the new annual State of the Climate report on Tuesday (March 19), revealing that **2023 broke records as the hottest year on record.**

Key points:

Greenhouse Gases (GHGs):

- GHGs like **carbon dioxide, methane, and nitrous oxide** are responsible for trapping solar radiation in the atmosphere, leading to global warming.
- **Concentrations of these gases reached record highs in 2022**, the latest year with consolidated global values available (1984–2022), according to the WMO report.

Surface Temperature:

- The global average near-surface temperature in **2023 soared to 1.45 degrees Celsius above pre-industrial levels, the highest on record.**
- The primary reason for this increase is the rising concentrations of GHGs, although the onset of El Niño in 2023 also played a role in boosting temperatures.

Ocean Heat Content (OHC):

- Oceans have absorbed nearly **90% of the extra heat trapped by GHGs since 1971**, leading to a steady increase in their temperature.
- In 2023, the OHC reached its highest level in the 65-year observational record.

Marine Heat Waves (MHWs):

- Global oceans experienced an **average daily marine heatwave coverage of 32% in 2023**, well above the previous record of **23% in 2016.**
- MHWs occur when a region of the sea's surface temperature rises to 3 or 4 degrees Celsius above the average for at least five days.

Antarctic Sea-Ice Extent:

- Antarctic sea-ice extent hit a **record low of 1.79 million km² in February 2023**, the lowest since satellite records began in 1979.
- The extent remained at a record low from June to early November, with the annual maximum in September reaching **16.96 million km², approximately 1.5 million km² below the 1991–2020 average.**

Glacier Retreat:

- The hydrological year **2022-2023 witnessed the largest loss of ice on record for the global set of reference glaciers, especially in North America and Europe.**
- The annual mass balance of the reference glaciers dropped to a new low in 2022-2023, reaching **-1.2 m w.e.**, which represents the amount of mass gained or lost by the glacier expressed in metres of water equivalent.

Science and Technology News

Astronomers Detect Seven Potential 'Ghost Particles' Passing Through Earth

- Scientists, using data from the **IceCube Neutrino Observatory in Antarctica**, have possibly discovered evidence for **astrophysical tau neutrinos, often termed "ghost particles"** due to their elusive nature.

Key points:

Neutrinos:

Neutrinos are the most abundant particles that have mass in the universe. Every time atomic nuclei come together (like in the sun) or break apart (like in a nuclear reactor), they produce neutrinos. A neutrino is a fermion that interacts only via weak interaction and gravity.

IceCube Neutrino Observatory:

- The **IceCube Neutrino Observatory** is the first detector of its kind, designed to observe the cosmos from deep within the **South Pole ice.**
- An international group of scientists responsible for the scientific research makes up the IceCube Collaboration.
- **IceCube searches for nearly massless subatomic particles called neutrinos.**
- These high-energy astronomical messengers provide information to probe the most violent **astrophysical sources: events like exploding stars, gamma-ray bursts, and cataclysmic phenomena involving black holes and neutron stars.**

Miscellaneous News

Pandavula Gutta

- Recently, Pandavula Gutta has been officially recognized as the **sole Geo-heritage site in Telangana.**

About:

- Located in the **Jayashankar Bhupalpally district, this geological marvel predates the Himalayan hills.**
- Discovered in **1990**, it boasts numerous prehistoric habitation sites, showcasing a rich history from the mesolithic to medieval times.
- The site is renowned for its **abundance of paintings, rock shelters, and evidence of human habitation.**
- The cave paintings, in **green, red, yellow, and white pigments**, feature geometrical designs and impressions.
- These paintings provide a **unique insight into prehistoric rock art**, found on cave walls, ceilings, and boulders.
- Noteworthy depictions in the rock art **include various wildlife such as bison, antelope, tiger, and leopard.**
- Additionally, symbols like the **swastika, along with shapes such as circles and squares, and weapons like bows, arrows, swords, and lances, are present.**

Geo heritage site:

- Geo-heritage sites, like Pandavula Gutta, are geologic features with **significant scientific, educational, cultural, or aesthetic value.**
- They may feature textbook geologic landscapes, unique rock or mineral types, rare fossils, or other geologic characteristics relevant to education and research.
- Such sites can also hold **cultural or historical significance**, with landscapes that played a role in past events.
- **Aesthetically, these sites can be visually captivating due to their geologic features or processes, often attracting tourists and providing economic benefits to the local area.**

Ethanol 100

- Petroleum Minister Hardeep Singh Puri unveiled **Ethanol 100 fuel, offering cleaner emissions and higher efficiency.**

Key points:

- **Cleaner and Greener Alternative:** Ethanol 100 offers a cleaner alternative to traditional gasoline, with lower emissions of greenhouse gases and pollutants, contributing to combating climate change and improving air quality.
- **High-Octane Rating:** With a high-octane rating typically between 100-105, Ethanol 100 is suitable for high-performance engines, ensuring better efficiency and power output while minimizing environmental impact.
- **Versatility:** Ethanol 100 can be utilized in various vehicles, including flex-fuel vehicles (FFVs) designed to run on gasoline, ethanol, or any blend of the two, highlighting its versatility and potential to become a mainstream fuel option.
- **Increased Availability:** The launch of Ethanol 100 expands its availability to 183 retail petrol outlets across Maharashtra, Karnataka, Uttar Pradesh, New Delhi, and Tamil Nadu, with plans for further expansion.
- **Towards Blending Targets:** This initiative aligns with the goal of achieving 20% ethanol blending by 2025-26, a target that has seen significant progress with the increased availability of ethanol blends like E20 and now Ethanol 100.

Barberton Greenstone Belt

- A new study has unearthed evidence of some of the earliest known earthquakes in 3.3-billion-year-old rocks, revealing insights into the early days of Earth's plate tectonics.
- The rocks also hint at the conditions present when life first evolved on our planet.

About:

- The study focused on the Barberton Greenstone Belt, a complex geological formation in southern Africa, which holds one of the most extensive records of Earth's history between 3.2 billion and 3.6 billion years ago.
- Researchers discovered similarities between the Barberton Greenstone Belt and younger rocks in New Zealand that experienced earthquake-triggered submarine landslides along the Hikurangi subduction zone.

- The findings suggest that massive earthquakes shaped the Barberton Greenstone Belt over millions of years, indicating that plate tectonics and associated geological events played a significant role in the early history of Earth.
- While there is no consensus on when plate tectonics began, the researchers believe that earthquakes and the energy they released could have contributed to creating conditions suitable for the emergence and survival of life.

Nana Jagannath Shankarseth

- Recently, the Maharashtra cabinet made a significant decision regarding Mumbai Central station.
- They decided to request the Ministry of Railways to rename Mumbai Central station after Nana Jagannath Shankarseth.

About:

- Born on February 10, 1803, in a wealthy Brahmin family in Murbad, Thane district.
- He took over the family business at a young age after his father's demise in 1822.
- Inspired by Sir Jamsetjee Jeejeebhoy, he became a renowned social reformer, educationist, and philanthropist.
- Often described as the "architect" of Mumbai (Bombay), he made significant contributions to various sectors, laying a strong foundation for the city.
- He earned the goodwill of both Indians and the British and became the first Indian to be nominated to the Legislative Council of Bombay.

Shankarseth's Contributions

- He founded the Native School of Bombay, later renamed as the Bombay Native Institution and then the Board of Education, which evolved into Elphinstone College.
- Shankarseth, along with Sir Jamsetjee Jeejeebhoy, was part of the committee that gave impetus to the first train project in India, which ran between Boribunder and Thane on April 16, 1853, undertaken by the Great Indian Peninsular Railway Company.

Battle of Okinawa

- The FBI(Federal Bureau of Investigation) returned 22 looted artefacts to Japan after a Massachusetts family discovered them while

going through their late **World War II** veteran father's belongings.

Key points:

- The artefacts, missing for nearly 80 years, date back to the **18th and 19th centuries**.
- They include six portraits, a **hand-drawn 19th-century map of Okinawa**, and various pottery and ceramics, representing a significant piece of Okinawan history.

About:

- The Battle of Okinawa, which took place from **April 1 to June 22, 1945, stands as the Pacific Theater's most extensive amphibious assault of World War II**.
- This significant event signaled the start of the Japanese Empire's decline and played a pivotal role in paving the way for the Allied triumph in the war.

Ramgarh Crater as Geo-Heritage Sites

Situated in Baran district, Rajasthan, Ramgarh Crater is designated as a geo-heritage site by the Rajasthan government.

Key points:

- Formed approximately **165 million years ago due to a meteor impact, it is a 3-kilometer diameter crater contributing significantly to the region's ecological balance and biodiversity**.
- Recognized as the Ramgarh Conservation Reserve, it is safeguarded under the **Wildlife (Protection) Act, 1972, to preserve its unique ecological and cultural heritage**.
- The presence of the Pushkar Talab complex within the crater is acknowledged as wetlands under the Wetland (Conservation & Management) Rules, 2017.

Geo-Heritage Site/National Geological Monuments:

- **Geoheritage sites have significant scientific, educational, cultural, or aesthetic value due to their geological features**.
- They often showcase unique rock formations, fossils, or landscapes crucial for education, research, cultural significance, or visual appeal.
- The Geological Survey of India (GSI) and State governments safeguard these sites, declaring them as geo-heritage sites/national geological monuments.

- **Established in 1851, GSI operates under the Ministry of Mines, headquartered in Kolkata, focusing on national geoscientific information creation and mineral resource assessment.**

Lianas

- **Lianas, woody vines that climb trees, restrict tree growth by competing for sunlight in the canopy.**
- They have lower carbon sequestering capacity compared to trees, which increases the threat to carbon storage.
- **Lianas can accelerate global warming by reducing forests' efficacy as carbon sinks and disrupting carbon cycles.**

Challenges:

- **Lianas grow in disturbed forests and at higher temperatures, often outcompeting trees for sunshine and resources.**
- Their resilience to climatic stress gives them a competitive advantage, especially in areas with more extreme conditions due to global warming.
- **Increased lianas can harm tree growth, reduce regeneration, and disrupt nutrient cycles, making forests less resilient to future disturbances.**

Basmati Rice

India's 'protected' basmati varieties have been renamed and cultivated in Pakistan, leading to a demand for legal action by IARI.

Key points:


- Basmati is a long, slender-grained aromatic rice grown in the Indian subcontinent.
- It is mainly cultivated in **India, Pakistan, Sri Lanka, and Nepal**.
- The term '**basmati**' comes from the Hindi word **bāsmatī**, meaning '**fragrant**.'
- As of 2019, India dominated the international basmati rice trade, accounting for **65%**.
- Pakistan accounted for the remaining **35%**.

Geographical Indication in India:

- Basmati rice production in India is geographically indicated in several states.
- These states include Uttarakhand, Bihar, Punjab, Haryana, Himachal Pradesh, Delhi, Western Uttar Pradesh, Orissa, and Jammu and Kashmir.

IARI:

- The **Indian Agricultural Research Institute (IARI)**, also known as the **Pusa Institute**, is India's national institute for agricultural research, education, and extension.
- It was established in **1905 in Pusa, Bihar** by the Government of India with financial assistance from American philanthropist Henry Phipps, Jr.. After an earthquake in 1934, the institute moved to New Delhi in 1936.
- The **IARI conducts basic and strategic research to understand processes and develop technologies for conservation agriculture, precision farming, and soil testing.**
- The IARI also provides national leadership in agricultural research, technology assessment, and transfer.



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