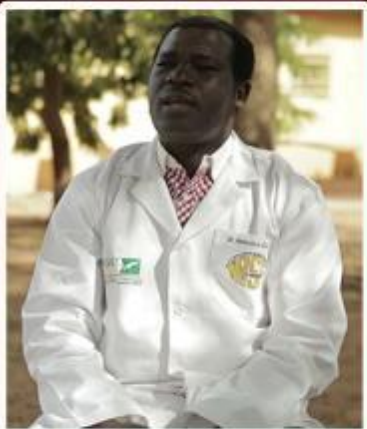


TNPSC THERVUPETTAGAM CURRENT AFFAIRS DECEMBER 2023

www.tnpscthervupettagam.com



SHANKAR
IAS ACADEMYTM
Best Academy for Civil Services Exam Coaching

Plot No. 1742, I Floor, 18th Main Road,
Anna Nagar, Chennai - 600 040.
Phone - 044-26216435, 4353 3445, Mobile: 9444166435
www.shankariasacademy.com



CONTENTS

TNPSC BITS	13
TAMIL NADU	25
Elephant Death Audit Framework in Tamil Nadu	25
Statue of Iyothee Thass Pandithar.....	26
Madras University as category I institution	26
R. Vaishali – Chess Player from Tamilnadu	26
Sparsh Bharati	27
Demand for electricity in T.N 2023	28
Kalki Subramaniam	28
Cyclone Michaung	28
Impatiens karuppusamyi	29
Memorial stone for Bipin Rawat	30
Integrated Urban Flood Management activities for Chennai Basin Project	30
Chennai rainfall in 2023.....	31
Law Officers to the High Court	31
Cauvery River Biodiversity & Hydrological Status	32
Tamil Nadu Unlimited 2023.....	33
Tamil Nadu's own tax revenue 2023	33
FDI inflow in to Tamil Nadu	34
T.N.'s outstanding liability from bonds.....	35
Makkaludan Mudhalvar scheme.....	35
Record rainfall in south Tamil Nadu in 2023	36
Conviction based disqualification.....	36
Own Tax Revenue impacts - Tamilnadu	37
Ennore Creek oil spill 2023	38
1923 Rainfall	38
6th Khelo India Youth Games.....	39
Climate Resilient Urban Development Program	40
3D-printed face implants.....	40
Welfare board for Gig Workers	41
NATIONAL	42
PM Vishwakarma under PIDF scheme	42



Compulsory Blending Obligation (CBO) of CBG	42
Indian Ocean Tuna Commission	43
Noida International Airport	43
6Eskai.....	43
Fast Track Special Court (FTSCs)	44
UNLF peace agreement.....	44
Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan	45
MAHASAGAR.....	46
India's First Woman Aide De Camp.....	46
Ayushman Arogya Mandir.....	47
Scheme for Providing Drones to Women Self Help Groups	47
PMGKAY Scheme for 5 More Years	48
Gram Manchitra	48
Gajraj System.....	49
Agniveervayu (women).....	49
Governor's role as Chancellor.....	50
Snakebites in India	50
Exercise Milan 2024.....	51
New Post Office Bill, 2023	51
World's First Portable Hospital.....	52
Garba Dance.....	53
Advocates (Amendment) Bill, 2023.....	53
NTWB's Inaugural Meeting.....	54
5th edition of Global Ayurveda Festival.....	54
Bills for Kashmir 2023	55
Amazon and IWAI.....	55
Largest circular Railway	56
Amplifi 2.0	57
CERT-In – RTI	57
First-Ever Auction of Critical Mineral Blocks	58
Surya Nutan	59
GIAN scheme.....	59
Voluntary Code of Ethics.....	60
Arbitration agreement on non-signatory firms.....	60



India Art, Architecture, and Design Biennale (IAADB) 2023	61
Model bye-laws for PACs	62
Sugarcane juice and Ethanol production	62
SC verdict on Art 370.....	63
Mahua Moitra expulsion	64
Truth and Reconciliation Commission	65
Karan Singh's Proclamation of 1949	66
Forest Certification Scheme.....	66
Pooja at Protected Monuments.....	67
Additional Funds for 2024 Lok Sabha Elections	68
Adoption of Emission Control Technology in Coal plants	69
Mission Antarctica	69
Trending Decline in Female Unemployment Rate	70
India's Light Vehicle Market.....	70
Appointment of Chief Election Commissioner	71
Bills For Women's Quota In J&K And Puducherry.....	72
Women voters in 2029	72
Electronic Origin Data Exchange System (EODES).....	73
Flying Wing Technology Demonstrator	73
Bhashini AI Tool.....	74
Logistics ease across different states 2023.....	75
The Telecommunications Bill, 2023	75
National Geoscience Data Repository Portal.....	76
Kakrapar Atomic Power Project Unit 4	76
India's First Winter Expedition to Arctic	77
Scheme to expedite the exploration of critical minerals.....	78
Ambiguity in the Definition of 'Child'.....	78
Doctors under Bharatiya Nyaya Sanhita	79
Reservation for People with blood Disorder	80
Press and Registration of Periodicals Bill, 2023.....	81
Project PRAYAS.....	81
CAG Audits in 2023.....	81
Zero Trust Authentication.....	82
YUVAi initiative	83



New Delhi Declaration on GPAI.....	83
BRAHMA-2D: Indigenous River Model.....	83
Commissioning of INS Imphal	84
Tax devolution to States 2023.....	85
RAMP program	85
Election Commission's Guidelines.....	86
Extended Version of Mission Karmayogi.....	87
India Skills Report 2024.....	87
INTERNATIONAL	88
AI's secure by design	88
Geothermal Energy Independent Power Producer (IPP)	88
New Coal Plant Construction in 2023 – China.....	89
International Maritime Organization – India.....	90
Paris Club.....	90
UN Peacekeeping Ministerial Meeting 2023	90
International Cotton Advisory Committee.....	91
Mount Merapi eruption 2023.....	91
Codex Alimentarius Commission 2023	92
AIGIF	93
Article 99 of the UN Charter.....	93
WRC 23 – Dubai, UAE	94
World's 100 Most Powerful Women of 2023	94
WHO Global Clinical Trials Forum	94
'One Province, One Policy'	95
Italy and BRI.....	96
Vice-chairperson of the UNESCO executive board	96
AI Alliance.....	97
WHO's Commission on Social Connection (2024–2026)	97
Essequibo region	98
Early Warnings for All 2027	98
Shidaowan Nuclear Plant	99
EU's AI Rules.....	100
91st Interpol General Assembly.....	100
Green Voyage 2050 Project	101



Operation Storm Makers II	101
World's Leading Opium Source in 2023	102
UN Peacekeeping Mission in Mali	102
Framework to Regulate AI.....	103
Approval of two gene therapies - USA	103
Russia's new nuclear submarines	104
Threat to Wisent Conservation	104
Menopause Drug Veoza – UK.....	104
Lithium Reservoir in Salton Sea	105
Earthquake in China	105
Gelephu Smart city Project	106
Noma Disease	107
International Year of Camelids	107
JN.1 Variant of COVID-19 Virus.....	108
Century's Largest Flood - North Queensland.....	108
Egypt's new President	109
Operation Prosperity Guardian	109
EU's New Pact on Migration and Asylum.....	110
Angola and OPEC.....	111
India - lithium blocks in Argentina.....	111
ECONOMY	112
Fresh formal jobs	112
Venezuelan Crude Oil Imports	113
Terms of Reference for 16th Finance Commission (2026-2031).....	113
Fewer fresh formal jobs in 2023	114
'Build for Bharat' Initiative	115
National Circular Economy Roadmap to Reduce Plastic Waste	115
Investor Risk Reduction Access (IRRA) platform	116
UPI Payment Limit.....	116
Startup funding.....	116
Global Remittances 2023	117
Net Borrowing limits for states 2023.....	118
Decline in Agriculture's GDP Share in 2023.....	119
Disinvestment - FY24 Target.....	119



SCIENCE AND TECHNOLOGY.....	120
Dust Devil on Mars	120
Mabella' vaccine	121
X-ray Polarimeter Satellite	121
JT60SA - Japan	122
HD110067.....	122
INS Sandhayak	123
ASW Shallow Water Craft (CSL) project	123
Nuclear Gravity Bombs	124
AI Model Gemini.....	124
Aditya Solar wind Particle Experiment (ASPEX).....	125
Genome sequencing of jamun.....	125
Naval Anti-Ship Missile Short Range (NASM-SR)	126
Revolutionizing Geospatial Mapping.....	127
Mosquitofish impact in India.....	127
INS Imphal	128
Generic Drugs for Rare Disease Cure	129
Antimatter responds to gravity	129
“Singing” Plasma Waves	130
WASP-17b.....	131
Monkey Chimera	131
Pontus plate.....	132
Roads on Moon.....	132
Disappearance of Saturn’s Rings	133
AMRIT technology.....	134
NASA’s DSOC First light	134
Polarized emissions from an Extragalactic Black hole	135
Quartz crystals in distant planet’s atmosphere	136
Bright Transient Survey Bot (BTSbot).....	137
Lockbit 3.0.....	137
Hydrogen cyanide in Enceladus.....	138
Krutrim AI	139
The Great Unconformity.....	139
TEMPO Satellite	140



Volcanic Activity on Mars	141
Unusual nitrogen-9 nucleus	141
Graph Networks for Materials Exploration	142
E prime layer of earth	142
Mission to Apophis	143
ENVIRONMENT	144
Barda Wildlife Sanctuary	144
IUCN’s Comprehensive Conservation Action Plans for Threatened Pollinator Groups in Europe	144
India’s emission in 2023	145
Damoh Tiger reserve	146
Accredited Compensatory Afforestation (ACA) Program	147
“Bio-vision” for Bharat	148
“Miyawaki” Plantation Method	148
Arsenic and Fluoride in India	149
India 2023: An assessment of extreme weather events	150
UNFCCC COP 28 Summit	151
Early Cretaceous (aptian) shark fossils from India	151
A23a	152
Virgin Atlantic Airlines	153
Manis Mysteria	153
Dodo (Raphus cucullatus)	154
Eastern Ghats Nature Interpretation Centre	154
Saiga Antelope	155
Lorrainosaurus (pliosaur)	155
Aerosol Impact on Climate in the Himalayan Region	156
Himalayan Katabatic Winds	157
Wakayama soryu	157
Algae assisted carbon capture	158
Climate Domino Effect: Exploring Teleconnections	158
Arctic Report Card for 2023	159
Chum Salmon’s Migration	160
Endangered Bat Species	160
Blue dragons in Chennai	161



Pappathi Chola.....	162
Impact of Human Activities on Global Dust Emissions	162
New Jumping Spiders	163
Dollfus' Stargazer.....	164
Fossil Fuel Usage in Food Production	164
World's smallest fanged frog.....	165
Eurasian otter in Chinnar Wildlife Sanctuary	166
Selfing Syndrome	166
204 tigers lost in 2023.....	167
REPORTS AND INDICES	168
World Malaria Report 2023.....	168
India Infrastructure Report on Urban Planning and Development 2023	169
Crime in India 2022	169
NCRB Data on Farmer Suicides 2022.....	170
Accidental Deaths and Suicides in India (ADSI) 2022 Report.....	171
1st Aspirational Delta Ranking of ABP.....	172
UNAIDS World Aids Day report 2023.....	173
The Global Climate 2011-2020: A Decade of Acceleration.....	173
State Educational Achievement Survey (SEAS) 2023	174
State of the Wet Tropics Report	174
Dynamic Ground Water Resource Assessment Report 2023.....	175
Stockholm International Peace Research Institute (SIPRI) report 2023.....	175
2023 World Digital Competitiveness Ranking.....	176
Q3 2023 Mercom India Rooftop Solar Report	176
The WMO provisional State of the Global Climate report 2023	177
QS world University ranking for sustainability 2024.....	177
Climate Change Performance Index (CCPI) 2024.....	178
Regional Overview of Food Security and Nutrition 2023.....	179
Africa Regional Overview of Food Security and Nutrition	180
Global Status Report on Road Safety 2023	181
International Debt Report	181
Mercer's Quality of Living Index 2023.....	182
Global Study on Homicide Report 2023.....	183
Coking coal import 2023.....	183



STATES.....	184
Transplant Games	184
Revanth Reddy.....	184
State Elections 2023	185
GI tags in Uttarakhand	185
New Mizoram CM.....	186
Total Fertility Rate – Kerala	186
Chhattisgarh’s New Chief Minister	187
4E Wave movement.....	187
Mohan Yadhav - Madhya Pradesh CM	188
24 th Hornbill festival	188
New Chief Minister of Rajasthan.....	189
Breeding centre in Banni grassland	189
Tiger in Pangolakha Wildlife Sanctuary	190
Food adulteration cases	190
Liquor introduction in Manipur	191
Local Resident of Jharkhand Bill.....	191
Black Tigers in India	192
India’s first-ever gyrocopter safari.....	192
India’s First AI City	193
Most preferred State to work.....	193
Solar Park scheme.....	193
PERSONALITIES, AWARDS AND EVENTS.....	194
National Metallurgist Award 2022	194
Nansen Award.....	195
National Awards 2023 for the Empowerment of Persons with Disabilities.....	195
‘Hump WWII’ Museum	195
Forbes Asia Heroes of Philanthropy List	196
Tourism awards 2024	196
VR Lalithambika – Kerala	196
Suganthy Sundararaj.....	196
India Internet Governance Forum 2023.....	197
ISSA Vision Zero 2023 Award	197
Safeena Husain.....	197



4th edition of AIGIF in Malaysia.....	198
54th International Film Festival - Goa	198
12 th edition of annual of REX CONCLiVE	199
2023 REACH Game Changing Innovator award	200
Indira Gandhi Peace Prize 2023.....	200
Governing Council Of UNIDROIT	200
2023 Falling Walls Prize for Science and Innovation Management.....	200
Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah	201
Sahitya Akademi Awards for 2023	201
United Earth Amazonia prize.....	202
M.S. Viraraghavan	203
UNESCO's 2023 Prix Versailles	203
UNESCO Asia-Pacific Awards 2023.....	203
DMDK founder Vijayakanth	204
SPORTS.....	205
13 th Hockey India Senior Men National Championship 2023	205
FIFA U-17 World Cup 2023	205
Khelo India Para Games 2023.....	205
79 th National Squash Championship – Chennai.....	206
Inter Command Ocean Sailing Race 2023.....	206
ITF World Champion	206
Khelo India Para Games 2023.....	207
National Sports Awards 2023.....	207
FIH Hockey Star Awards 2023	208
IMPORTANT DAYS.....	209
National Cadet Corps (NCC) 2023 - 75th Anniversary	209
World AIDS Day 2023 - December 01.....	210
National Pollution Control Day 2023 - December 02.....	210
International Day for the Abolition of Slavery 2023 - December 02	210
Nagaland Statehood Day 2023 - December 01.....	211
World Day of the Handicapped or International Day of Persons with Disabilities 2023 - December 03	211
World Computer Literacy Day 2023 - December 02	211
Indian Navy Day 2023 - December 04.....	212



International Day of Banks 2023 - December 04.....	212
International Cheetah Day 2023 – December 04.....	212
World Soil Day 2023 – December 05	213
International Volunteer Day 2023 – December 05	213
UNCTAD ecommerce week 2023 – December 04 to 08	214
National Microwave Oven Day 2023 – December 06.....	214
Mahaparinirvan Diwas	214
Armed Forces Flag Day 2023 – December 07	214
International Civil Aviation Day 2023 – December 07	214
SAARC Charter Day 2023 - December 08.....	215
International Anti Corruption Day 2023 - December 09.....	215
International Day of Commemoration and Dignity of the Victims of the Crime of Genocide 2023 - December 09.....	215
Human Rights Day 2023 - December 10	216
Nobel Prize Day 2023 - December 10	216
UNICEF Foundation Day 2023 - December 11.....	217
International Mountain Day 2023 - December 11	217
Universal Health Coverage Day 2023 - December 12.....	218
International Day of Neutrality 2023 - December 12	218
National Energy Conservation Day 2023 - December 14	218
Vijay Diwas 2023 - December 16	219
International Day to End Violence Against Sex Workers 2023 - December 17	219
Minorities Rights Day in India 2023 - December 18.....	219
International Migrants Day 2023 - December 18	220
Arabic Language Day 2023 - December 18	221
Goa's Liberation Day 2023 - December 19	221
International Human Solidarity Day 2023 - December 20.....	221
National Mathematics Day 2023 - December 22	222
Winter Solstice 2023 - December 21.....	222
National Kisan Diwas 2023 - December 23.....	223
National Consumer Rights Day 2023 - December 24.....	223
International Biodiversity Day 2023 - December 29	224
MISCELLANEOUS	225



Pompe Disease	225
Elephant Endotheliotropic Herpes Virus.....	225
DRESS Syndrome	226
India's 2023 Google search.....	227
Saint-Belec Slab	227
Dictionaries' words of the year 2023	228
Aktocyte tablets for cancer	229
India's first Sodium ION battery technology	229
Mobile phone usage and sperm count	229
Oldest Evidence of Yak Domestication	230
Joynagar moa.....	230
Andriamamelo Cave	231
World's Oldest Known Fort.....	231
Megabeds from ancient volcanic eruptions.....	232
Iridescent clouds.....	233
Megalodon Tooth in Deep Sea	233
Loneliness impact on health	234
India's Crypto Portfolio 2023	234

TNPSC BITS

- ❖ Telangana has unveiled the world's first 3D-printed temple, in Burugupally, Siddipet district.
- ❖ Tata Consultancy Services (TCS) has been ranked number 1 in service delivery quality and commercial competitiveness in Spain.
- ❖ The Global Digital Public Infrastructure Repository and a Social Impact Fund aimed at promoting the development of Social Impact Fund to advance Digital Public Infrastructure (DPI) in the Global South was launched during the G20 Leaders' Summit.
- ❖ An Army Medical Corps Officer Col Sunita BS becomes the first woman to assume the role of Commanding Officer at Armed Forces Transfusion Centre, Delhi Cantt.
- ❖ The Nepal Army and Indian army is participating in the 17th edition of Joint Military Exercise SURYA KIRAN at Pithoragarh, Uttarakhand.
- ❖ The 9th National Level Pollution Response Exercise (NATPOLREX-IX) was conducted by the Indian Coast Guard in Gujarat.
- ❖ REC Limited received the "Best Employer for Policies in Diversity & Inclusion" Award at the 4th Diversity & Inclusion Excellence Awards and Conclave organized by Assocham.
- ❖ The book, titled 'Pranab, My Father: A Daughter Remembers' is authored by Sharmishtha Mukherjee, daughter of Pranab mukharjee.
- ❖ IndiGo airlines launched its AI chatbot, 6Eskai to elevate its customer service experience.
- ❖ Anish Shah has been elected as President for 2023-24 of Federation of Indian Chambers of Commerce & Industry (FICCI).
- ❖ Indian shooter Anish Bhanwala won the bronze medal in the men's 25m rapid fire pistol event at the ISSF World Cup Final 2023 in Doha, Qatar.
 - It was also the first medal for India in the men's 25m rapid fire pistol event in the ISSF World Cup Final history.
- ❖ The first three of a series of eight anti-submarine warfare shallow water crafts being built by Cochin Shipyard Ltd for the Navy were launched.
 - The ships are to be named as INS Mahe, INS Malvan and INS Mangrol.
- ❖ The 28th conference of Parties or COP-28 member countries agreed to make operational a Loss and Damage (L&D) Fund meant to compensate countries already dealing with climate change.
- ❖ Outdoor air pollution from all source's accounts for 2.18 million deaths per year in India, second only to China according to a modelling study published in the BMJ.

- The research found that air pollution from using fossil fuels in industry, power generation, and transportation accounts for 5.1 million extra deaths a year worldwide.
- ❖ Despite a tangible growth downturn in the farm and services sectors as well as consumer spending, India's Gross Domestic Product (GDP) grew at a higher-than-expected 7.6% in the July-September 2023 quarter, as per initial estimates from the National Statistical Office.
- ❖ Former US Secretary of State Henry Kissinger has died at the age of 100.
 - He was behind the US bombing of Cambodia during the Vietnam War, the US's involvement in the 1973 Chilean military coup, the US's tacit support to Argentina's military junta, and notably, the US support for Pakistan during the Bangladesh Liberation War in 1971.
- ❖ Nepal becomes first South Asian nation to register same-sex marriage.
 - Taiwan is the only other country to legalise same-sex marriage in Asia
- ❖ Kerala's Responsible Tourism (RT) Mission has made it to the Global List of Case Studies of the United Nations World Tourism Organisation (UNWTO).
 - Maharashtra's Tadoba-Andhari Tiger Reserve project was the only Indian representatives on this list.
- ❖ Spread across 10% of Dubai's land, Al Marmoom Desert Conservation Reserve is UAE's largest unfenced nature reserve.
 - It invites visitors to explore the sandy landscapes, embark on cycling adventures through the dunes, and indulge in wild picnics.
- ❖ Kanchan Devi became the first Woman Director General of the Indian Council of Forestry Research and Education (ICFRE).
 - ICFRE, established in 1986 and the largest organization responsible for forestry research in India, is operating under the Union Ministry of Environment, Forest, and Climate Change.
- ❖ Captain Geetika Koul becomes First Woman Medical Officer Deployed at Siachen, the world's highest battlefield.
 - This follows the deployment of Captain Shiva Chouhan, from the Corps of Engineers, at the same location almost a year ago.
- ❖ Commander Purna Deosthale from Mumbai will be the First Lieutenant of the Naval warship INS Chennai.
 - She is the first lady Observer on Tupolev Tu-142, a maritime reconnaissance aircraft as well as a stint on the P8I, also a reconnaissance aircraft.
- ❖ Sandra Day O'Connor, the first female Supreme Court Justice of the USA, has passed away at the age of 93 recently.

- She was nominated by President Ronald Reagan in 1981 to the US supreme court.
- ❖ Uganda from Africa for the first time qualified for the 2024 men's T20 World Cup to be held at USA and West Indies.
 - It will feature 20 teams for the first time ever.
- ❖ Akshata Krishnamurthy is a woman working at NASA.
 - She has become the first Indian citizen to operate a Mars rover.
- ❖ Cybersecurity firm Promon has identified a novel Android malware named FjordPhantom.
 - It is a new malware that employs virtualization to elude detection and target applications.
- ❖ A scientist from the Indian Council of Agricultural Research (ICAR) recently discovered a new plant species of 'wild okra'.
 - It was discovered in a moist deciduous forest in Keonjhar district, Odisha.
- ❖ The Innovations for Defence Excellence (iDEX), the flagship initiative of the Department of Defence Production, has achieved a significant milestone by signing its 300th contract.
- ❖ Operation Nanhe Farishte is a Railway Protection Force (RPF) initiative to reconnect children who have been lost or separated from their families.
- ❖ Uber announced the launch of its global flagship electric vehicle service Uber Green in Bengaluru, Karnataka.
 - It marks our second stop in the country for Uber Green, with operations already running in Mumbai.
- ❖ Oxford University Press has unveiled "Rizz" as its Word of the Year, reflecting the linguistic choices of Generation Z.
 - The term is used to describe someone's ability to attract or seduce another person.
- ❖ Bharti Airtel becomes the 8th company to surpass Rs.6 lakh crore of market cap in India.
 - The others are Reliance Industries, TCS, HDFC Bank, ICICI Bank, HUL (Hindustan Unilever Limited), Infosys and ITC (India Tobacco Company).
- ❖ Bajaj Group has become the fifth business house to cross the Rs 10-lakh-crore mark in market cap.
 - Earlier, Tata Group, Mukesh Ambani Group (Reliance Industries), HDFC Bank and Adani Group have achieved this milestone.

- ❖ The 6th World Congress on Disaster Management was held Dehradun, Uttarakhand under the theme of 'STRENGTHENING CLIMATE ACTION & DISASTER RESILIENCE'.
 - It has emerged as the largest global conference on disaster management outside the United Nations system.
- ❖ Tata Motors has opened its fourth Registered Vehicle Scrapping Facility (RVSF) in Chandigarh.
 - Tata Motors already has three RVSFs in Jaipur, Bhubaneswar, and Surat.
- ❖ LIC (503\$ billion reserve) has become the fourth largest insurer in the world in 2022, ahead of US-based MetLife and Prudential Financial Inc.
 - Top three insurers are Allianz SE (Germany), China Life Insurance, and Nippon Life Insurance (Japan).
- ❖ Taylor Swift, an American woman singer-songwriter, has been named Time Magazine's Person of the Year for 2023.
- ❖ The football player Lionel Messi of Argentina has been named as Times magazine's Athlete of the Year for 2023.
 - It comes after Messi won the 2023 Ballon d'Or for a record-extending eighth time.
- ❖ Uttar Pradesh Chief Minister Yogi Adityanath has given approval for the establishment of the country's inaugural Telecom Center of Excellence in Saharanpur.
 - It is to be situated at the Saharanpur campus of IIT Roorkee.
- ❖ President of India Droupadi Murmu, launched the 'New Education for New India' campaign by Brahma Kumaris, Sambalpur, in Sambalpur, Odisha.
 - This campaign is envisaged to inculcate values and uplift the consciousness of the students for better society.
- ❖ Olympian M. Sreeshankar (long jump) has been honored with the prestigious 35th Jimmy George Foundation Award for emerging as the best sportsperson of Kerala.
 - The Jimmy George Foundation Award is a distinguished accolade in Kerala's sporting community.
- ❖ Indian para-archer Sheetal Devi from Jammu and Kashmir clinched the title of Best Youth Athlete at the Asian Paralympic Committee (APC) awards ceremony during the fourth edition of the Asian Awards in Riyadh, Saudi Arabia.
 - The Asian Awards, organized by the Asian Paralympic Committee, is a ceremony dedicated to honour outstanding achievements of Asian para-athletes and officials.

- ❖ The Vijayawada Railway Station of Andhra Pradesh has been awarded the prestigious platinum rating by the Indian Green Building Council (IGBC) for its commitment to environmental sustainability and eco-friendly practices.
 - It is based on six environmental categories including sustainable station facility, health, hygiene and sanitation, energy efficiency, water efficiency, smart and green initiatives and innovation and development.
- ❖ Power Grid Corporation of India Limited (PGCIL), a Maharatna Public Sector Undertaking, under Ministry of Power, has been conferred the prestigious SKOCH Gold Award 2023.
 - The SKOCH Gold Award 2023 acknowledges the outstanding contributions and technological advancements.
- ❖ Meghalaya's Lakadong turmeric has been granted the prestigious Geographical Indication (GI) tag.
 - Three more products from Meghalaya were honoured with the GI tag: Garo Dakmanda (traditional dress), Larnai pottery, and Garo Chubitchi (alcoholic beverage).
- ❖ Bengaluru airport is to be first in India to phase out gadgets-in-tray security check system.
 - Kempegowda International Airport begin passenger trials of CTX machines, integrated with Automatic Tray Retrieval System and full-body scanners.
- ❖ The Hamfest India 2023, was inaugurated by Devusinh Chauhan, the Minister of State for Communications at Ahmedabad, Gujarat.
 - It serves as a comprehensive platform for amateur radio enthusiasts.
- ❖ OneWeb India, backed by Bharti Group, has received authorizations from IN-SPACe to launch commercial satellite broadband services in India.
 - It is the first company in India to receive these approvals, making it the sole satellite broadband services provider.
- ❖ The lower house of the Indian Parliament has successfully passed the Central Universities (Amendment) Bill, 2023.
 - The primary focus of this bill is the establishment of the 'Sammakka Sarakka Central Tribal University' in Telangana
- ❖ Punjab-origin writer Meira Chand (81) was among the three Singaporeans conferred the Cultural Medallion, the city-state's most prestigious arts accolade.
 - She shared this with novelist Suchen Christine Lim and Malay dance veteran Osman Abdul Hamid.
- ❖ Bihar garnered global recognition for its afforestation efforts under the Jal-Jeevan-Hariyali Abhiyan at the COP28 Climate Summit in Dubai.

- ❖ The R21 /Matrix-M malaria vaccine developed by the University of Oxford and the Serum Institute of India, has been recommended for use by the WHO.
 - Earlier the RTS, S/AS01 vaccine received a WHO's recommendation in 2021.
- ❖ Union Home Ministry launched a unique initiative named Mera Gaon Meri Dharohar.
 - The main objective of the project is to culturally map India's 6.5 lakh villages, spanning 29 States and seven Union Territories.
- ❖ US President announced a high-speed rail project connecting Las Vegas and Los Angeles.
 - The high-speed rail project aims to reduce the travel time between Los Angeles and Las Vegas from seven hours to just three hours.
- ❖ A 2,400-meter-deep physics laboratory in southwest China's Sichuan Province became operational to pursue the invisible substance known as dark matter.
 - This is the deepest and largest underground lab in the world.
- ❖ India's foreign exchange reserves increased to \$604 billion after a gap of about four months.
 - The forex reserves were last above the \$600 billion mark on August 11 this year.
- ❖ Federal Bank, has been honored with the coveted title of “Bank of the Year (India)” by The Banker, Newspaper.
- ❖ With poor air quality, Pakistan's Lahore topped the worldwide pollution index.
- ❖ The National Mission for Clean Ganga and Mississippi River Cities and Towns Initiative (MRCTI) signed a Memorandum of Common Purpose at the ongoing COP28 in Dubai.
 - It aims to collaborate on issues related to urban river management.
- ❖ ITC Limited surpassed British American Tobacco Plc (BAT) to become the third most valuable tobacco company in the world.
- ❖ Nikhil Dey, an Indian social activist, has been named as the International Anti-Corruption Champion by the US State Department.
- ❖ As per US-based consultancy firm 'Morning Consult', Prime Minister Narendra Modi retained his position as the world's most popular leader with an approval rating of 76 per cent.
 - He is followed by Mexico President Andrés Manuel López Obrador and Swiss Confederation President - Alain Berset.
- ❖ The 5G RAN technology developed by IIT Madras and Kanpur and the R&D arm of MeiT Y was formally handed over to an Indian tech company for advancement and commercial applications.

- ❖ The Indian Armed Forces contingent reached Hanoi, Vietnam to take part in the fourth edition of Joint Military Exercise VINBAX-2023.
- ❖ International Animal Rights Day is observed on December 10 every year, to highlight the connection between animal and human rights.
- ❖ FedEx Express, has collaborated with the Indian Institute of Technology Madras to set up a Centre of excellence for smart and sustainable supply chains.
- ❖ Former UN Secretary-General Ban Ki-moon, and three distinguished diplomats, was honored at the annual 'Diwali Power of One Awards.'
 - This prestigious ceremony is often hailed as the 'Oscars of Diplomacy,'
- ❖ Prashant Agrawal, President of Narayan Seva Sansthan, was honoured with the prestigious National Award for 'Best Personality- Empowerment of Differently-abled' by President of India.
- ❖ Mercom Capital's recent rankings was placing Adani Green Energy in second rank globally among the world's large-scale solar PV developers.
- ❖ Veteran actor Kabir Bedi was awarded the 'Order of Merit', the prestigious civilian honour bestowed by Italy.
- ❖ The 33rd Vyas Samman 2023 will be conferred to notable Hindi-Writer Pushpa Bharati.
 - It is given annually to an outstanding work of Hindi literature by an Indian citizen published in the last 10 years.
- ❖ Telangana launched Maha Lakshmi Scheme, under which girls, women and transgender persons of all ages, who are domicile of Telangana, can travel free of cost in TSRTC buses.
- ❖ A statue of Thiruvalluvar, regarded a cultural icon by Tamils, was inaugurated in the French town of Cergy.
- ❖ Professor Savita Ladage from Mumbai has been named winner of the Royal Society of Chemistry's Nyholm Prize for Education in recognition of contributions to chemistry education.
- ❖ The National Thermal Power Corporation (NTPC) has won two silver awards at the Brandon Hall Group's Excellence in Technology Awards 2023.
- ❖ Barracuda, India's fastest solar-electric boat, was launched in Alappuzha, Kerala.
- ❖ Leander Paes and broadcaster and promoter Vijay Amritraj of India have become the first Asian men to be inducted into the International Tennis Hall of Fame.
 - Besides the duo, renowned journalist and writer Richard Evans have also been elected in the Ultimate Honour in Tennis.
- ❖ International Finance Corporation (IFC) has recognised Federal Bank as the top performer of the 2023 Climate Assessment for Financial Institutions (CAFI) Awards for Climate Reporting.

- ❖ The Directorate General of Civil Aviation granted an aerodrome licence for the Ayodhya's Maryada Purshottam Shri Ram International Airport.
- ❖ India's Antim Panghal was named the women's Rising Star of the Year 2023 by United World Wrestling (UWW).
- ❖ Shah Rukh Khan tops UK's Top 50 Asian Celebrities in the World list for 2023 followed by Alia Bhatt and Priyanka Chopra.
- ❖ India's Department of Space now aims to build a Bharatiya Antariksha Station (Indian Space Station) by 2035.
- ❖ The largest reading event with 3,066 people organised at Pune by the National Book Trust made the Guinness Book of World Records.
 - The previous record, held by China, stood at 2,884 simultaneous readers.
- ❖ The young entrepreneurs Kaivalya Vohra (21) and Aadit Palicha (22), founders of Zepto app have claimed the top spots in the Hurun India Top 100 Under 30 List 2023.
- ❖ Tax Inspectors Without Borders (TIWB) is a joint initiative of the UNDP and OECD launched a programme in Saint Lucia.
 - India has been chosen as the Partner Administration and will provide Tax Experts for this programme.
- ❖ International Tea Day is celebrated every year on 15 December.
 - May 21 was also observed as International Tea Day to commemorate the signing of the First International Tea Agreement in 2005.
- ❖ The Union Coal Ministry has allocated a North Dhadu (western part) Coal block in Latehar district of Jharkhand to NLC India Ltd.
 - Dhadu has reserves of 434.65 million tonnes and its peak rated capacity is three million tonnes per annum.
- ❖ A single Akash surface-to-air (SAM) missile system engaged and destroyed four unmanned aerial targets simultaneously during the Astrashakti exercise held by the Indian Air Force.
- ❖ Indian Prime Minister launched the Surat Diamond Bourse (SDB) at Gujarat, which is dubbed as the "world's biggest workspace".
- ❖ India's first fully integrated school of sustainability was launched at the Indian Institute of Technology (IIT) Kanpur in association with the Kotak Mahindra Bank Limited.
- ❖ SGBS Unnati Foundation became the first entity to list on the social stock exchanges (SSE).
- ❖ Real Vision Homes Pvt Ltd Chairman, Dr. Srinivas Naik Dharavath, was honored with Visionary Leader Icon Award 2023 by AASRAA at 5th National Conventions at Delhi.

- ❖ Rijul Maini, a medical student from Michigan, recently was crowned Miss India USA 2023 in New Jersey.
 - Saloni Rammohan and Sneha Nambiar secured Miss Teen and Mrs India USA titles, respectively.
- ❖ Rio Tinto, a leading global mining and materials company celebrates its 150th anniversary with a special stamp by the Indian Department of Posts.
- ❖ Founders of Kerala-based Genrobotic Innovations, one of India's leading robotics companies, have been featured in the prestigious 'Forbes 30 Under 30 Asia 2023' list.
- ❖ Aster Medcity, located in Kochi, Kerala has been ranked No.1 in the 'Best Multi-specialty Hospital Emerging' category by The Week-Hansa Research 2023.
- ❖ The second edition of Kashi Tamil Sangamam was inaugurated at 'Namo Ghat' in Varanasi.
 - The event served as a platform to strengthen the emotional and creative ties between the ancient city of Kashi and the southern state of Tamil Nadu.
- ❖ Prime Minister inaugurated the world's largest meditation centre Swarved Maha mandir in Varanasi.
- ❖ Geologists have discovered 10 new species of trilobite in a relatively unstudied area of Thailand.
 - These extinct sea creatures were hidden for 490 million years and are helping scientists create a new map of the animal life during the late Cambrian period.
- ❖ Haryana created history by winning their maiden Vijay Hazare Trophy 2023 against Rajasthan.
 - It was originally known as the Ranji One-Day Cricket Trophy.
- ❖ Tamil Nadu has been recognised as the top performer in the Logistics Ease Across Different States (LEADS) 2023 rankings in Coastal states Group.
- ❖ NHAI has introduced the ERS Mobile App to optimize dispatch information to on-road units, ensuring swift responses to emergency calls for prompt assistance.
- ❖ All three Indian Armed Forces officers undergoing the Command and Staff Course at Defence Services Command and Staff College in Sri Lanka have been awarded the 'Golden Owl' for their outstanding performance.
 - The three officers are ranked first amongst the foreign student officers in the Air Force, Army and Navy wings respectively.
- ❖ Real Vision Homes Chairman, Dr. Srinivas Naik Dharavath, was conferred with Global Icon Award at G20 Initiative Summit in Colombo, Sri Lanka
- ❖ The International Gender Equality Prize was awarded to the Afghan Women Skills Development Center.

- It works to promote and protect the rights of women in Afghanistan.
- ❖ Microsoft has released a new small language model—Phi-2, which has 2.7 billion parameters and is an upgraded version of Phi-1.5.
- ❖ Accenture has launched a Generative AI Studio in Bengaluru, as part of the company's broader strategy to harness advanced AI technology for business optimisation.
- ❖ The Wireless Planning & Coordination Wing (WPC) and Wireless Monitoring Organisation (WMO) celebrates the International Monitoring Station (IMS) Day on December 19, 2023.
- ❖ WHO Regional Director (South-East Asia) Dr Poonam Khetrpal Singh has been awarded Bhutan's National Order of Merit Gold Medal for her distinguished services to the country.
 - She is the first woman regional director of WHO South-East Asia region,
- ❖ IndiGo, carrier has created history by becoming the first Indian airline to carry 100 million passengers in a single calendar year.
- ❖ The International Monetary Fund has reclassified India's exchange rate regime to "stabilised arrangement" from "floating" for the period from December 2022 to October 2023.
- ❖ The 18th session of the UNESCO-Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage 2024 will take place in Kasane, Republic of Botswana.
- ❖ Rajakannappan was re-designated as TN Minister for Higher Education and Backward Classes Welfare.
- ❖ Robin Minz created history in the Indian Premier League (IPL) by becoming the first tribal cricketer to ever participate in the tournament.
- ❖ The Centre informed that in 2022 a total of 112 deaths took place in the country due to tiger attacks.
- ❖ The Gaja Capital Business Book Prize 2023 has been jointly won by *Against All Odds: The IT Story of India* by Kris Gopalakrishnan, N Dayasindhu and Krishnan Narayanan, and *Winning Middle India: The Story of India's New-Age Entrepreneurs* by TN Hari and Bala Srinivasa.
- ❖ USV Pvt Ltd and Biogenomics announced the launch of INSUQUICK, India's first biosimilar insulin aspart.
 - It will improve access for people with diabetes.
- ❖ This year marks the 20th anniversary of the United Nations Convention against Corruption.
 - The Convention was signed on December 9, 2003 in Mexico and is the only legally binding multilateral international anti-corruption treaty.

- ❖ Maharashtra bagged women's and Airport Authority of India (AAI) won the men's title at the 75th Inter State-Inter Zonal Badminton Championship 2023 in Guwahati.
- ❖ India's total debt, or the total outstanding bonds which are being traded in the market, rose to \$2.47 trillion (Rs 205 lakh crore) in the September quarter.
- ❖ Vita Dani has become the first Indian to be inducted as a governing board member of the International Table Tennis Federation's (ITTF) Foundation.
- ❖ The sixth edition of the Rabindranath Tagore Literary Prize was awarded to poet-critic Sukrita Paul Kumar for her book, 'Salt & Pepper: Selected Poems'.
- ❖ NTPC Kanti Thermal Power Plant has won the 11th Edition of the FICCI Water Award 2023 in the category "Industrial Water Use Efficiency".
- ❖ IREDA CMD Pradip Kumar Das bagged 'CMD of the Year' Award for the Second Consecutive Year.
- ❖ The Former chair of the National Commission for Women and Padma Bhushan awardee Dr. V Mohini Giri passed away recently.
 - She started the War Widows Association in 1972, after the Indo-Pak war of 1971.
- ❖ The Ministry of Textiles has launched "Paat-Mitro" mobile application to provide important information about MSP and agronomy to jute farmers.
- ❖ Indian Space Research Organisation (ISRO) has been awarded Leif Erikson Lunar Prize for the remarkable success of its most recent lunar mission, Chandrayaan-3.
 - This is the first time that ISRO has received this award.
- ❖ The Union Home Ministry has approved the deployment of the Central Industrial Security Force (CISF) in the Parliament complex for its protection.
- ❖ The President of France Emmanuel Macron will be visiting India as the Chief Guest for the 75th Republic Day celebrations.
- ❖ The grand finale of Smart India Hackathon (Software)-2023 was organised at IES College of Technology nodal centre at Bhopal, in which team 'Go Green' of IES College emerged victorious.
 - Smart India Hackathon (SIH) is a nationwide initiative by the innovation cell of the ministry of education.
- ❖ The International Gita Mahotsav – 2023 was held in Kurukshetra, Haryana.
- ❖ The SASTRA-Ramanujan Awards for 2022 and 2023 were presented, respectively, to Yunqing Tang and Ruixiang Zhang, both mathematicians at the University of California in Berkeley.

- ❖ Sheikh Mishal Al Ahmad Al Jaber Al Sabah takes constitutional oath as Kuwait's new emir.
- ❖ The Colorado Supreme Court disqualified former President Donald Trump from the ballot in the state's presidential election next year over his role in the 2021 attack on the U.S. Capitol by his supporters.
- ❖ The International Basketball Federation (FIBA) celebrates the first World Basketball Day on December 21, 2023.
- ❖ The World Health Organization added the R21/Matrix-M malaria vaccine, developed by Oxford University and manufactured by Serum Institute of India, to its list of prequalified vaccines.
- ❖ Invest India Agency hosted the 27th World Investment Conference (WIC) in New Delhi.
 - This year's conference is themed "Empowering Investors: IPAs Pioneering Future Growth".
- ❖ 'Viksit Bharat @2047: Voice of Youth' initiative was launched to provide a platform to the youth of the country to contribute ideas to the vision of Viksit Bharat @2047.
 - Viksit Bharat @2047 is the vision to make India a developed nation by 2047, the 100th year of independence.
- ❖ International Day of Epidemic Preparedness is observed on December 27 to raise public awareness on epidemics on all levels and prepare for future outbreaks.
- ❖ President Draupadi Murmu on December 25 gave her assent to 3 new laws — the Bharatiya Nyaya Sanhita, the Bharatiya Nagarik Suraksha Sanhita and the Bharatiya Sakshya Act.
 - They will replace the Indian Penal Code, the Code of Criminal Procedure and the Indian Evidence Act of 1872.
- ❖ India's Mines Ministry has recognized around 22 critical mineral blocks under exploration across 9 states for possible future auctions.
 - These blocks contain cobalt, titanium, gallium, vanadium, tungsten, lithium, and rare earth elements reserves.
- ❖ IndusInd Bank has launched 'IndusInd Bank eSvarna', India's first Corporate Credit Card.
- ❖ India recorded their maiden victory against Australia in a women's test match at Wankhede Stadium in Mumbai.
 - This is India's first victory against Australia in 11 tests since the team's first clashed in the format in 1977.
- ❖ NITI Aayog, in partnership with the International Development Research Centre (IDRC) and the Global Development Network (GDN), published a report, 'A Green and Sustainable Growth Agenda for the Global Economy'.

- ❖ Crompton Greaves Consumer Electricals Ltd. (CGCEL), has been conferred with the prestigious National Energy Conservation Award 2023.
 - It is awarded in the category of the Most Energy Efficient Appliance of the Year 2023 for its storage water heater.
- ❖ The Government of India has unveiled a video that captures ten extraordinary moments when India left an indelible mark on the global stage in 2023.
 - It includes Chandrayaan 3's Historic Landing, Digital Payments Leadership and World's Largest Office Building at Surat.
- ❖ The 8th edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted by Royal Thai Navy at Bangkok, Thailand.
- ❖ On December 25, Former Indian Prime Minister Atal Vihari Vajpayee's birthday is observed as "Good Governance Day" since 2014.
- ❖ The Veer Bal Diwas is observed in December 26 to commemorate the sacrifice of the two youngest sons of the 10th Guru, Guru Gobind Singh, in 1705.
- ❖ NASA has launched a campaign called "Message in a Bottle" and invited the public to send their names that will travel to Jupiter's moon along with a poem dedicated to Europa Clipper mission.
- ❖ Gujarat topped in the rooftop solar capacity with 10.4 GW as of November this year.
- ❖ PM Modi's personal YouTube Channel reaches two crore subscribers.
 - He became the first world leader whose personal YouTube Channel has reached two crore subscribers.

TAMIL NADU

Elephant Death Audit Framework in Tamil Nadu

- ❖ This framework started in the year 2022 by the Forest Department from its Elephant Death Audit Framework.
- ❖ In Tamil Nadu, an elephant has a higher chance of dying of electrocution than of old age and starvation.
- ❖ Data shows that 1,505 elephant deaths have been recorded since 2010 and 159 of them, or 10.5% of all mortalities.
- ❖ Elephants are among the most long-living mammals, with a life expectancy of around 50 years in the wild with a generation length of 22 years.

Statue of Iyothee Thass Pandithar

- ❖ Tamil Nadu chief minister M K Stalin unveiled the statue of anti-caste activist Iyothee Thass Pandithar at Gandhi Mandapam in Chennai.
- ❖ Iyothee Thasar born in then Teynampet-Thousand Lights area in the former Madras Presidency on May 20, 1845.
- ❖ He learned Tamil, English, Pali and Sanskrit.
- ❖ He was the first person who made the words Tamizhan and Dravidan as political identity.
- ❖ Iyothee Thass Pandithar is also known as the “Dravida Peroli” and ‘Father of Social Reforms in South India’.
- ❖ He launched ‘Dravida Pandian’ magazine in 1885 along with John Rathinam and in 1907.
- ❖ He launched ‘Oru Paisa Tamizhan’, a Tamil newspaper.
- ❖ He established the ‘Sakya Buddhist Society’ in Madras in 1898.
- ❖ He also started Dravida Mahajana Sabha in 1891 and Advaidananda Sabha in 1876.

Madras University as category I institution

- ❖ In the recent round of accreditation by the National Assessment and Accreditation Council, the university secured a score of 3.59, an improvement from 3.32.
- ❖ The UGC came up with a regulation for graded autonomy around five years ago.
- ❖ The main benefit is that category I universities can start programmes without the UGC’s approval, and they need to only report it to the UGC.
- ❖ The UGC (Categorisation of universities for grant of graded autonomy regulations) 2018 Committee recognised 60 institutions across the country that year as category I.

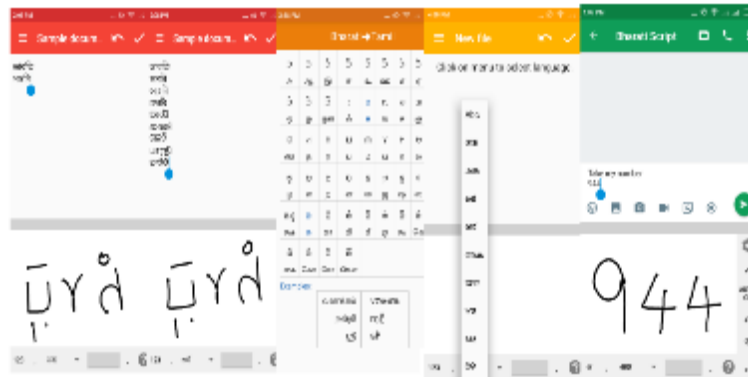
R. Vaishali – Chess Player from Tamilnadu

- ❖ She became only the third woman from India to get the Grandmaster (GM) title.
- ❖ She completed the final requirement – 2,500 Elo points – during the ongoing Llobregat Open tournament in Spain.
- ❖ Her younger brother R. Praggnanandhaa had got the GM title in 2018, when he was just 12.
- ❖ Vaishali and Praggnanandhaa make history as the first-ever brother-sister duo to become Grandmasters

- ❖ Koneru Humpy was the first.
- ❖ She was the world's youngest female player ever, when she became a GM in 2002, at the age of 15.
- ❖ The other Indian female GM is Dronavalli Harika.



Sparsh Bharati



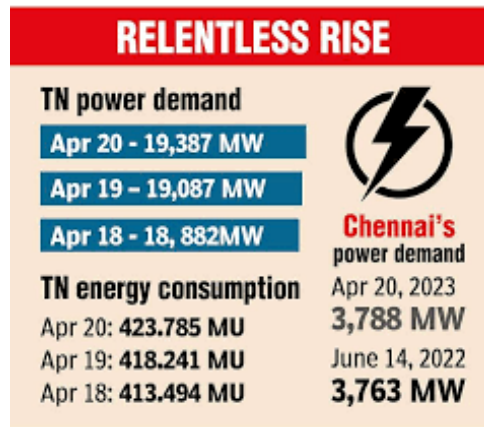
Prof. V. Srinivasa Chakravarthy,
Bharati Team, IIT Madras.

One nation. One script

- ❖ Sparsh Bharati is an offshoot of Bharati script developed by IIT Madras professor.
- ❖ This 'Indian Braille' can be used across Indian languages.
- ❖ In the original Braille, every word fits into six dots.
- ❖ But Sparsh Bharati is using a combination of lines and dots.
- ❖ Sparsh Bharati is intuitive and visual.

Demand for electricity in T.N 2023

- ❖ The energy demand in Tamil Nadu increased by more than 7.5%, in the 10-month period from January to October this year.
- ❖ Chennai city, which accounts for one-fourth of the energy consumed in the State, also reported an increase in demand by more than 8%.
- ❖ The consumption increased by 6.38% in the State, and 7.76% in the city.



Kalki Subramaniam

- ❖ Transperson activist Kalki Subramaniam has been named the representative from the Southern region in the National Council for Transgender Persons
- ❖ The Union Minister for Social Justice and Empowerment is the ex-officio chairperson of the panel.
- ❖ Shraddha A. Joshi (West region) Shobha Thakur (North region), Vidya (East region), and Rituparna Neog (North East region) are the other representatives from the transperson community in the panel.
- ❖ Five experts Abhina Aher, Ravina Bariha, Sadhana Mishra, Aparna Lalingkar, and Giti Thadani are also in the panel.

Cyclone Michaung

- ❖ It was named by Myanmar.
- ❖ The IMD (the Indian Meteorological Department) had initially predicted that Michaung would remain a 'tropical cyclone' (wind speeds of 62 kph to 87 kph) until it crossed the Andhra Pradesh coast.
- ❖ But later the IMD upgraded it to the intensity of a 'severe' storm (wind speeds of 88 kph to 166 kph)
- ❖ It crossed the south Andhra Pradesh coast, close to Bapatla.
- ❖ It is between the cities of Nellore and Machilipatnam in Andhra Pradesh.

- ❖ After crossing the Andhra coast, the system is expected to continue to move northwestward towards southern Odisha.
- ❖ Here, the IMD has issued an 'orange' alert
- ❖ Climatologically, about five cyclones develop in the North Indian Ocean basin — comprising the Bay of Bengal and the Arabian Sea — every year.
- ❖ Of these, an average of four cyclones develops over the Bay of Bengal and one over the Arabian Sea.



Impatiens karuppusamyi



- ❖ The researchers of Botanical Survey of India (BSI) have discovered a new species of plant from Kalakad Mundanthurai Tiger Reserve, Tamil Nadu.
- ❖ The species is named after Dr. S Karuppusamy (Madhura College, Tamil Nadu) for his significant contributions to the taxonomy of south Indian angiosperms.

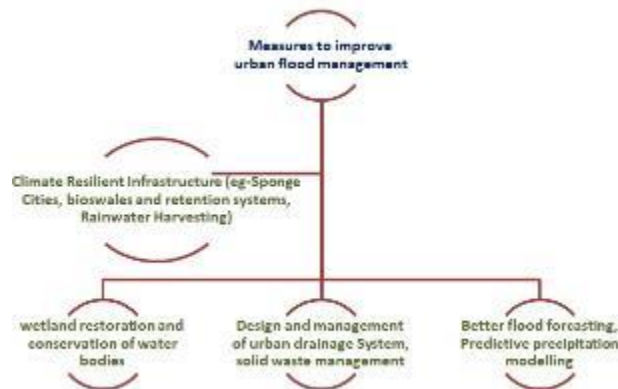
- ❖ Impatiens is a widespread genus with over 1,000 species worldwide, with more than 280 found in India.
- ❖ It is prevalent in tropical Africa, Madagascar, India, Sri Lanka, and China.
- ❖ The discovered species are differed from all known species of Impatiens.
- ❖ It shares similarities with Impatiens Bicornis but differs in terms of leaf size, flower count, scape length, and flower size.

Memorial stone for Bipin Rawat

- ❖ A memorial stone, Smritika, was installed at Nanjappa Chatram, Coonoor, Tamilnadu.
- ❖ It is the site of helicopter crash in which General Bipin Rawat, the then Chief of Defence Staff (CDS), died along with 13 others, in 2021.
- ❖ It was constructed by the Madras Regimental Centre, Wellington, Ooty.



Integrated Urban Flood Management activities for Chennai Basin Project



- ❖ The Union Government has sanctioned an ambitious urban flood mitigation project for Chennai under the National Disaster Mitigation Fund (NDMF).
- ❖ It will be India's first project to tackle urban floods after Chennai deluge.

Chennai rainfall in 2023

- ❖ In 2023, Chennai has received the highest amount of rainfall since the rain and subsequent floods in 2015.
- ❖ Nungambakkam and Meenambakkam observatories recorded 53cm and 52cm of rain between December 2 and 4, 2023.
- ❖ Chennai recorded a total of 46cm of rain between December 3 and 5.
- ❖ On December 1 2015, the city was heavily flooded after receiving 494 mm of rainfall in a span of 24 hours.
- ❖ Chennai was declared a disaster zone on December 2, 2015.
- ❖ In November 2015, the city had received an overall rainfall of 1049.3 mm, making it the highest amount of rain received since 1918.

Top 24hrs Rainfall in Chennai City (Nungambakkam)

S.N	Date	24 hrs Rainfall in mm
1	21 st October, 1846	550
2	24 th October 1857	460
3	25 th November 1976	452
4	14 th June 1996	347
5	13 th November 1985	329
6	2 nd December 2015	294
7	17 th February 1984	294
8	22 nd October 1969	280
9	27 th October 2005	273
10	10 th December 1901	262
11	12 th November 1985	249
12	16 th November 2015	247
13	13 th November 1984	246
14	22 nd May 1952	244
15	5 th December 2023	238
16	16 th November 1922	236
17	3 rd December 2005	234
18	28 th October 1902	233
19	4 th December 2023	230
20	7 th November 2021	215
21	17 th May 1943	215
22	26 th December 1978	203
23	31 st December 2021	201


Law Officers to the High Court

- ❖ The Madras High Court said merit must be the sole criterion for law officers' appointments.
- ❖ The rule of vertical/horizontal reservation need not be followed in the appointment of such appointments.

- ❖ The government is duty-bound to engage only the most proficient, competent and capable lawyers to represent it before the courts of law.
- ❖ The relationship between the government and the law officer is purely professional and not that of a master and a servant.
- ❖ Since law officers engaged by the government do not hold a civil post, Article 16(4) of the Constitution will not be applicable.

SCs, STs & OBCs IN LOWER JUDICIARY

States	SC Judges	% of total	ST judges	% of total	OBCs	% of total	Total working strength
MP	183	14	192	14	186	14	1,328
Delhi	37	8	06	1.24	NA	NA	482
Odisha	65	15	90	20	45	10	441
Punjab	91	23	Nil	Nil	56	14	398
Chhattisgarh	59	15	97	25	72	18	395
Haryana	70	20	Nil	Nil	52	15	348
Assam	13	7	20	12	NA	NA	174
Jharkhand	17	11	47	31	26	17	153
Himachal	20	14	06	4	08	5	148
Tripura	08	10	14	17	NA	NA	83
Sikkim	NIL	NIL	06	26	12	52	23
Total	563	14	478	12	457	12	3,973



Cauvery River Biodiversity & Hydrological Status

- ❖ The paper, titled “Cauvery River: Land Use Dynamics Biodiversity & Hydrological Status” was published by scientists and researchers at the Indian Institute of Science (IISc), Bengaluru.
- ❖ Natural vegetation on nearly 12,850 sq. km of land in the Cauvery basin was lost in the 50 years between 1965 to 2016.
- ❖ Karnataka has lost much more than any other State in the basin.
- ❖ It accounts for three-fourths of the lost cover, while Tamil Nadu’s share is around one-fifth.
- ❖ Natural vegetation cover went down by around 46% all these years.
- ❖ The quantum of reduction of dense vegetation was 35% (6,123 sq. km) and that of degraded vegetation, 63% (6,727 sq. km).
- ❖ The extent of area under irrigation rose from 6,556 sq. km in 1928 to 20,233 sq. km now.

- ❖ In Karnataka, it was from 1,193 sq. km to 8,497 sq. km. Consequently, the water demand of the two States increased.



Tamil Nadu Unlimited 2023

- ❖ 'Tamil Nadu Unlimited', is an one-day summit organised by The Hindu in association with Guidance Tamil Nadu.
- ❖ It highlighted the potential of the different sectors in developing Tamil Nadu into a preferred growth destination.
- ❖ As many as eight districts in Tamil Nadu contribute almost 50% of Gross State Domestic Product (GSDP).
- ❖ In comparison, two to three districts in Karnataka and Maharashtra contribute major chunk of their respective GSDP.
- ❖ 15 districts contributed to over 50% of Tamil Nadu's urbanisation.
- ❖ The Hosur belt had emerged as a electric vehicle hub, while Thoothukudi would emerge as a green hydrogen hub.

Tamil Nadu's own tax revenue 2023

- ❖ The Reserve Bank of India released a report titled 'State Finances: A Study of Budgets of 2023-24'.
- ❖ The contribution of State's own tax revenue (SOTR) to Tamil Nadu's overall tax revenue has been stable at over 70%.
- ❖ As per data, SOTR accounted for 78.8% of Tamil Nadu's total tax revenue during the pre-GST period of 2015-16 to 2016-17.

- ❖ During the post-GST and pre-COVID period of 2018-19-2019-20, the share of SOTR stood at 79.1%.
- ❖ Post-COVID, the SOTR share was 78.9%.
- ❖ The SOTR is more than 70% of total tax revenue in Haryana, Maharashtra, Telangana, Tamil Nadu, Gujarat, Karnataka, Kerala and Punjab.
- ❖ Less than 50% is in Bihar and Jharkhand.
- ❖ Uttar Pradesh share of SOTR is ranged from 45.6%-54%, while that of Madhya Pradesh, it was around 50-51%.



FDI inflow in to Tamil Nadu

State	FDI inflow in \$ b (Oct 2019 to Sept 2023)
Maharashtra	61.92
Karnataka	47.30
Gujarat	34.16
Tamil Nadu	9.85
Haryana	8.79
Telangana	5.92

- ❖ Cumulative Foreign Direct Investment (FDI) inflow in to Tamil Nadu has touched nearly \$10 billion in the last four years from the period between October 2019 and September 2023.
- ❖ Up to September of the current fiscal, the State attracted FDI worth \$1.3 billion.
- ❖ For the fiscal 2022-23, the State attracted FDI worth \$2.17 billion, which was lower than \$3 billion that came in the previous year.

- ❖ Tamil Nadu ranks fourth in attracting FDI in the period between Oct 2019 and September 2023, after Maharashtra, Karnataka and Gujarat.
- ❖ The tiny states of Haryana and Telangana are close behind Tamil Nadu.
- ❖ Tamil Nadu Global Investors Meeting scheduled to take place on January 7 and 8, 2024 in Chennai.

T.N.'s outstanding liability from bonds

- ❖ Tamil Nadu had an outstanding liability of about ₹5.38 lakh crore at the end of March 2023 on funds raised through the issue of bonds.
- ❖ About 38.5%, or ₹2.07 lakh crore, of the outstanding amounts are coming up for repayment in 1-5 years.
- ❖ 28.6% of the outstanding amount was coming up for repayments in 5-10 years.
- ❖ Of the outstanding liability from the issue of bonds at the end of March 2023, 16.4% matures after 20 years, 9.7% between 10-20 years and 6.9% within a year.
- ❖ At the end of March 2023, the total outstanding liabilities stood at ₹7.41 lakh crore.

Fiscal deficit within limits



Makkaludan Mudhalvar scheme

- ❖ Tamil Nadu Chief Minister launched 'Makkaludan Mudhalvar', a scheme.
- ❖ It is aimed at disposing off grievances or petitions filed by people on merit within 30 days.
- ❖ The special camps will be conducted in phases in all 38 districts in the state to collect petitions from people concerning various departments and issues.
- ❖ The first phase will cover the rain-hit districts of Chennai, Tiruvallur, Kanchipuram, and Chengalpattu.

Record rainfall in south Tamil Nadu in 2023

- ❖ The southern districts of Tamil Nadu recorded with an unprecedented amount of rainfall on Sunday, December 17, 2023.
- ❖ As many as 39 regions witnessed extremely heavy rainfall.
- ❖ Kayalpattinam in Thoothukudi district received a whopping 95 cm of rainfall.
- ❖ Tiruchendur and Srivaikuntam in Thoothukudi district received 69 cm and 62 cm respectively.
- ❖ Manjolai in Tirunelveli district got 55 cm and Moolaikaraipatti recorded 61 cm.
- ❖ This is the second-highest rainfall of since Kakkachi (Manjolai) received 96.5 cm in 1992.
- ❖ Rainfall over and above 21 cm is graded as extremely heavy.
- ❖ Between 12 and 20 cm, it is very heavy and from 7 to 11 cm heavy.

South Tamil Nadu	Rainfall recorded (in cm)
Kayalpattinam (dist. Thoothukudi)	95
Tiruchendur (dist. Thoothukudi)	69
Srivaikuntam (dist. Thoothukudi)	62
Moolaikaraipatti (dist. Tirunelveli)	62
Manjolai (dist. Tirunelveli)	55

We are there to Alert and Aware you.

Conviction based disqualification

- ❖ The Madras High Court convicted Tamil Nadu Higher Education Minister K. Ponmudy in one of the multiple disproportionate asset cases.
- ❖ According to Section 8(1) of the Representation of the People Act, 1951, a legislator convicted of an offence under the Prevention of Corruption Act (PCA) should be disqualified for a period of six years, from the date of conviction, if the punishment is limited to a fine.
- ❖ However, if a legislator is sentenced to any term of imprisonment under the PCA, then he or she should be disqualified from the date of conviction till the entire period of imprisonment and also for a further period of six years from the date of release.
- ❖ The disqualification can be avoided only if the conviction, and not just the sentence, gets stayed or set aside.

- ❖ He is third T.N. legislator to face disqualification in past 10 years.
- ❖ The first legislator to be disqualified was Jayalalithaa in September 2014, followed by then Sports and Youth Welfare Minister P. Balakrishna Reddy in 2019.

WHAT THE REPRESENTATION OF THE PEOPLE ACT SAYS	
SECTION 8(1) A person convicted for promoting enmity between different groups, rape, terrorist acts, insulting national flag etc stands disqualified for six years on mere conviction.	victed of any other offence incurs disqualification if he is sentenced to an imprisonment of not less than two years. The disqualification continues till six years after release.
SECTION 8(2) A person convicted for hoarding, dowry offences etc. incurs disqualification if he is sentenced to at least six months for the offences. The bar continues for six years after release from jail.	SECTION 8(4) Protects sitting MPs and MLAs from being disqualification under the above provisions. If they file an appeal within three months, they can continue as a member of the House till the completion of the term or till the decision on appeal, whichever is earlier.
SECTION 8(3) A person con-	

Own Tax Revenue impacts - Tamilnadu

- ❖ Tamil Nadu’s Own Tax Revenue, which accounts for over 70% of total revenue, is likely to be affected by the floods in Chennai and the Southern districts.
- ❖ For 2023-24, the State’s Own Tax Revenue (SOTR) is projected to be ₹1,81,182 crore, as per the Budget estimates.
- ❖ It is a 20.61% growth from 2022-23.
- ❖ The SOTR accounts for 78.9% of Tamil Nadu’s total revenue.

A substantial rise
The tax collection in Tamil Nadu has increased by over 50% in the first quarter of fiscal 2023

	Q1 2023	Q1 2022	% change
State Goods and Services Tax	13692.84	9224.11	48.4
Stamps and Registration Fees	4457.95	2314.46	92.6
Land Revenue	58.46	38.07	53.5
Taxes on Sales, Trade etc	13119.24	9484.81	38.3
State Excise Duties	2594.55	1199.23	116.3
Total	33923.04	22260.68	52.3

(IN ₹ CRORE) SOURCE: COMPTROLLER AND AUDITOR GENERAL OF INDIA

- ❖ So far in 2023-24 (Till October 2023), Tamil Nadu’s Own Tax Revenue was ₹84,930.9 crore.

- ❖ This constitutes around 46.88% of the Budget estimates.

Ennore Creek oil spill 2023

- ❖ Massive oil spill from Chennai Petroleum Corporation Limited (CPCL) resulted in a sheet of oil spreading into Buckingham Canal and Ennore Creek.
- ❖ Ennore Creek, an arm of the Kosathalaiyar River, is demarcated as Coastal Regulation Zone IV.
- ❖ Inadequate stormwater management at CPCL, led to overflowing of oil mixed water amid floods triggered by cyclone Michaung.
- ❖ Section 356J of the Merchant shipping Act, 1958, describes the power to give a notice to the owner, etc, of polluting ship when the central government is satisfied the ship is not as per the prescribed rules.
- ❖ Section 356K of the same Act states that if a person, after being served the notice under section 356J, fails to comply, the central government can convict the person of an offense.



1923 Rainfall

- ❖ The 1923 Tamirabharani floods was caused by over 42.3 cm of rain spread over two days in composite Tirunelveli then.
- ❖ It had caused damage to Tirunelveli similar to that faced by south Tamil Nadu now.
- ❖ Around the same time, a century ago, Srivaikundam railway station and some other stations were flooded for four days.
- ❖ In 1923, Tirunelveli and Kadayam had received 44.2 cm and 43.4 cm of rains respectively in one week.

- ❖ Similarly, Palayamkottai (37.8 cm) and Tenkasi (37.2 cm) were among the locations that received heavy rain.
- ❖ This year, Kayalpattinam received nearly 118 cm of rain on December 17 and December 18.
- ❖ Kulasekarapattinam had recorded 10 cm or more of rain 44 times between 1901 and 1970.
- ❖ Similarly, Tiruchendur had recorded over 10 cm of rain 47 times between 1914 and 1970.

A HUNDRED YEARS AGO DECEMBER 20, 1923

Madura floods

Madura, Dec. 19: There have been heavy floods in **Tambaraparani river** for the last four days. Besides, a few big tanks in the district have breached. Portions of **Tinnevely town**, Sanniasigramam, Kailasapuram, Veeraraghavapuram, Sindupundurai are 3 to 5 feet under water. Tinnevely bridge Srivaikuntam, Tiruchendur, Alwartirunagari, and some other Railway stations have been under water for the last three days. Station records, staff quarters, and property have all been washed away. Srivaikuntam Railway Station is surrounded by water to the extent of about four miles on both sides. All communications beyond Srivaikuntam have been cut off. Several telegraph posts have been washed away and the railway lines have sunk into earth. From Tenkasi upto Trivandrum the Railway line is unimpaired.

6th Khelo India Youth Games

- ❖ The 6th Khelo India Youth Games will be held from 19 to 31 January 2024 in Tamil Nadu.
- ❖ Union Minister of Youth Affairs and Sports and Tamil Nadu Sports Minister released the mascot for the 6th Khelo India Youth Games in Chennai.
- ❖ The official logo, jersey, torch and theme song for the 6th Khelo India Youth Games were also launched on the occasion.
- ❖ The mascot of the games is Veeramangai Velu Nachiyar.
- ❖ For the first time, Squash will be included in these games.

Climate Resilient Urban Development Program



- ❖ The World Bank's Board of Executive Directors has approved the \$300 million Tamil Nadu Climate Resilient Urban Development Program.
- ❖ It will provide around 2 million people with more and better access to water and sewerage services in cities.
- ❖ It will help 21 Urban Local Bodies (ULBs) update their delivery systems and provide quality and efficient water supply and sewerage services to consumers.
- ❖ IBRD will use the blended financing instrument of Program-for-Results (PforR) with Investment Project Financing (IPF) to link disbursement of funds directly to the achievement of results while providing technical assistance.
- ❖ The Program loan has a maturity of 32 years with a grace period of 7 years.

3D-printed face implants

- ❖ Indian Institute of Technology Madras have developed 3D-printed face implants for patients affected by black fungus.
- ❖ The condition is prevalent among COVID-19 patients, persons with uncontrolled diabetes, HIV/AIDS and other medical conditions.

- ❖ Black fungus disease, also known as mucormycosis, can cause devastating effects, with the affected person losing their defining facial features.
- ❖ Around 60,000 mucormycosis cases were registered in India after the pandemic.
- ❖ In severely affected persons, the fungus invaded the tissues of the face, causing necrosis and disfigurement.



Welfare board for Gig Workers

கிக் (GIG) தொழிலாளர்கள் நல வாரியம்!

தமிழ்நாடு முழுவதும் இணைய வழி உணவுப்பொருள் விநியோகம் மற்றும் சேவைப்பணியில் ஈடுபட்டுள்ள அமைப்புசாரா கிக் (gig) தொழிலாளர்களின் நலனை பாதுகாக்கும் வகையில்,

தமிழ்நாடு இணையம் சார்ந்த கிக் (gig) தொழிலாளர்கள் நல வாரியம்
(Tamilnadu Platform based GIG Workers Welfare Board)

எனும் புதிய நல வாரியத்தை தோற்றுவித்து ஆணை பிறப்பித்துள்ளது தமிழ்நாடு அரசு. இதன் மூலம், தமிழ்நாடு முழுவதும் சுமார்

ஒரு லட்சத்திற்கும் மேற்பட்ட கிக் (gig) தொழிலாளர்கள் இவ்வாரியத்தில் உறுப்பினராகப் பதிவு பெற்று நலத்திட்ட உதவிகள் பெற்று பயன்பெறுவர்.

- ❖ The labour welfare and skill development department has constituted the Tamil Nadu Platform Based Gig Workers Welfare Board.
- ❖ It will cater to workers in e-commerce services including online food delivery and cab aggregators.
- ❖ The labour department expects more than one lakh workers to register in the welfare board.

NATIONAL

PM Vishwakarma under PIDF scheme

- ❖ Reserve Bank has been decided to include PM Vishwakarma under the Payments Infrastructure Development Fund (PIDF) Scheme.
- ❖ It also extends the tenure of the scheme by another two years.
- ❖ The PIDF Scheme aims at incentivising the deployment of payment acceptance infrastructure such as physical Point of Sale (PoS), Quick Response (QR) codes in tier-3 to tier-6 centres, north-eastern states and Union Territories of Jammu & Kashmir and Ladakh.
- ❖ PM Vishwakarma scheme proposed to offer up to 8% subsidy for loans given to artisans.

Compulsory Blending Obligation (CBO) of CBG

- ❖ The Centre announced a roadmap for mandatory blending of compressed biogas (CBG) in the transportation and domestic segments of the city gas distribution (CGD) sector in a phased manner.
- ❖ The government expects this decision will push manufacturing and consumption of CBG.
- ❖ The compulsory blending obligation will be 1 per cent of total CNG and domestic PNG consumption for FY26, 3 per cent for FY27, and 4 per cent for FY28.
- ❖ The obligation mandates 5 per cent blending from FY29.



Indian Ocean Tuna Commission

- ❖ The Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying, is organizing the 19th Working Party on Data Collection and Statistics (WPDCS19) of the Indian Ocean Tuna Commission (IOTC).
- ❖ This is an important meeting organized by the IOTC and hosted by Department of Fisheries, India.
- ❖ It will bring together the renowned Scientists and Experts in the field of Tuna fisheries from all around the world.
- ❖ The IOTC currently has 31 contracting parties and two cooperating non-contracting parties, Liberia and Senegal.
- ❖ Tunas alone contributing an estimated annual value of trade of US\$41 billion (in 2018).

Noida International Airport

- ❖ IndiGo will be the first airline to start flights from Noida International Airport.
- ❖ It is scheduled to be operational by the end of 2024.
- ❖ The greenfield airport is located in Jewar area of Gautam Buddh Nagar district in western Uttar Pradesh, about 75 km from Delhi.
- ❖ It will be the second international and overall, third commercial airport in the National Capital Region (NCR).

6Eskai



- ❖ IndiGo introduces AI chatbot '6Eskai' to help customers with flight booking.
- ❖ The AI bot boasts an impressive 1.7 trillion parameters, allowing it to answer a diverse range of common questions.
- ❖ It reduces 75% customer service agent's workload showcasing the efficiency and effectiveness of the bot.

- ❖ The bot will use the natural language conversations to guide customer throughout booking journey.

Fast Track Special Court (FTSCs)

- ❖ The Union Cabinet has approved the continuation of Fast Track Special Court (FTSCs) as, a Centrally Sponsored Scheme (CSS) from 01.04.2023 to 31.03.2026 with financial implication.
- ❖ The government's unwavering priority towards ensuring the safety and security of women and children is evident through several initiatives, such as the 'Beti Bachao Beti Padhao' programme.
- ❖ FTSCs, designed as dedicated courts, are expected to ensure swift dispensation of justice, offering quick relief to victims while strengthening the deterrence framework for sexual offenders.



UNLF peace agreement

- ❖ The Centre and the Manipur government have successfully signed a peace agreement with the United National Liberation Front (UNLF).
- ❖ The UNLF is recognized as the oldest valley-based armed group in Manipur.
- ❖ It has committed to returning to the mainstream, renouncing all illegal activities.
- ❖ The agreement emphasises pursuing a peaceful resolution within the constitutional framework.
- ❖ Notably, the UNLF are comprising armed Meitei rebels, many of whom are situated in Myanmar.

PAMBEI'S CLAIMS

A list of 'successful major strikes' provided by the UNLF, against 'Indian Occupational Forces'

- **Nov. 23, 2009:** 5 security personnel killed in Chandel
- **Oct. 31, 2009:** 7 Assam Rifles personnel killed in Chandel
- **April 14, 2009:** 14 Assam Rifles personnel killed in Ukhrul
- **March 15, 2008:** More than 10 Assam Rifles jawans killed at T. Minnou, 5km west of Moreh
- **Jan. 20, 2006:** Several security personnel killed in Parbung and Tipaimukh sub-division
- **Jan. 3, 2006:** More than 10 Assam Rifles personnel killed in Tamenglong
- **Oct. 22, 2005:** 10 security personnel killed in Jiribam
- **Dec. 9, 2004:** 12 Rashtriya Rifles personnel killed in Churachandpur. On the same day, five other personnel killed in Chandel
- **Nov. 13, 2004:** More than 6 security personnel killed in Singhat sub-division
- **July 28, 2004:** 3 Assam Rifles personnel killed at Mahadev Hill, Namthilok on the Imphal-Ukhrul Road

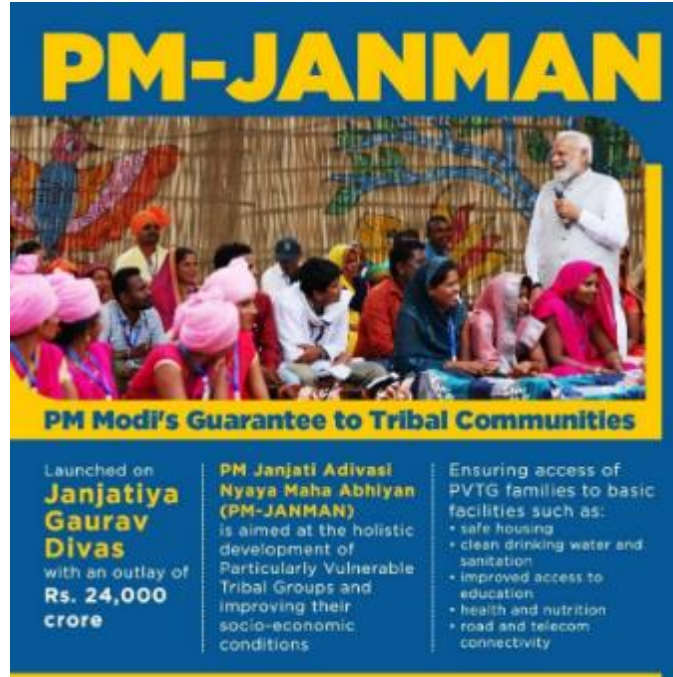


UNLF chairman Khundongbam Pambei

- **Oct. 21, 2003:** 5 security personnel killed when a column of Garhwal Rifles team attacked a UNLF mobile task force area
- **Nov. 20, 2002:** 7 CRPF jawans killed in Churachandpur
- **Oct. 3, 1999:** 8 CRPF personnel killed at Tonsen Lamkhai
- **Feb. 13, 1999:** 9 Rashtriya Rifles personnel killed in Imphal
- **Nov. 1, 1997:** 10 CRPF personnel killed at Ehou Bazar, Sadar Hills
- **June 7, 1997:** 7 CRPF jawans killed in Bishnupur
- **Nov. 15, 1991:** 5 CRPF jawans killed in Lamdan, Tamenglong

Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan

- ❖ The Union Cabinet approves Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN).
- ❖ It is a comprehensive effort to tackle challenges confronting Particularly Vulnerable Tribal Groups (PVTGs).
- ❖ Seventy-five communities spread across 18 states and the Union Territory of Andaman and Nicobar Islands have been identified as Particularly Vulnerable Tribal Groups (PVTGs).
- ❖ It aims to implement 11 critical interventions through nine ministries, including the Ministry of Tribal Affairs.



MAHASAGAR

- ❖ It is a high-level virtual interaction aimed at promoting active and security and growth in the Indian Ocean Region (IOR) by the Indian Navy.
- ❖ It means Maritime Heads for Active Security And Growth for All in the Region.
- ❖ It is engaging with leaders from Bangladesh, Comoros, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Sri Lanka and Tanzania
- ❖ MAHASAGAR, which translates to “vast ocean,” aptly captures the essence of the Indian Navy’s outreach initiative.
- ❖ It served as a platform for dialogue and cooperation, reflecting the commitment to the Government of India’s vision of SAGAR – ‘Security and Growth for All in the Region.’
- ❖ The chosen theme is “Collective Maritime Approach towards Countering Common Challenges”.

India’s First Woman Aide De Camp

- ❖ Squadron Leader Manisha Padhi has been appointed as the first Indian women Aide-De-Corp (ADC) from the Indian Armed Forces.
- ❖ She is a distinguished officer from the 2015 batch of the Indian Air Force.
- ❖ It marks a historic milestone, breaking gender norms and showcasing women’s excellence in diverse fields.



Ayushman Arogya Mandir

- ❖ The Union Government has decided to rename the existing Ayushman Bharat Health and Wellness Centres (AB-HWCs) as 'Ayushman Arogya Mandir' with the tag-line 'Arogyam Parmam Dhanam'.
- ❖ Ayushman Bharat aims to shift from selective healthcare to offering a full spectrum of services, covering preventive, promotive, curative, rehabilitative, and palliative care.
- ❖ It comprises two components.

First

- ❖ The creation of 1,50,000 Health & Wellness Centres (HWCs) for free Comprehensive Primary Health Care, emphasizing wellness and a wider array of services at the community level.

Second

- ❖ Pradhan Mantri Jan Arogya Yojana (PM-JAY), extends health insurance of Rs. 5 lakhs per year to over 10 crore impoverished families for secondary and tertiary care.
- ❖ The HWCs aim to provide an extensive range of services encompassing non-communicable diseases, palliative and rehabilitative care, oral, eye, and ENT care, mental health support, and initial care for emergencies and trauma, along with free essential drugs and diagnostics.

Scheme for Providing Drones to Women Self Help Groups

- ❖ Prime Minister Narendra Modi on launched the 'Namo Drone Didi' programme while interacting with the beneficiaries of the Viksit Bharat Sankalp Yatra.
- ❖ It aims to provide drones to 15,000 women Self Help Groups (SHGs) during the period 2024-25 to 2025-2026 for providing rental services to farmers for agriculture purposes.


- ❖ The scheme provides Central Financial Assistance at 80% of the cost of drones and accessories/ancillary charges, up to a maximum of Rs. Eight Lakh.
- ❖ The scheme seeks to empower women Self Help Groups (SHGs) and bring in new technologies through drone services in the agriculture sector.
- ❖ In the programme, PM Modi also launched an initiative to increase the number of Jan Aushadhi Kendras, which sell medicines at subsidised rates, from 10,000 to 25,000.
- ❖ The prime minister also dedicated to the nation the landmark 10,000th Jan Aushadhi Kendra at AIIMS, Deoghar, Jharkhand.

PMGKAY Scheme for 5 More Years

- ❖ The Union government has decided to provide free ration to over 81 crore people for five more years till December 2028 under the Pradhan Mantri Garib Kalyan Anna Yojana scheme.
- ❖ It is aimed at ensuring accessibility, affordability, and availability of foodgrains for the targeted population.
- ❖ PMGKAY was originally launched in 2020 to address the challenges posed by the pandemic.
- ❖ It provided 5 kg of free foodgrains per beneficiary per month, in addition to the subsidized foodgrain under the National Food Security Act (NFSA).
- ❖ As of December 2022, PMGKAY was integrated into the NFSA, offering free ration for one year.
- ❖ The economic cost of providing 35 kg of rice and wheat to Antyodaya families under PMGKAY is borne by the central government.

LAUNCHED DURING PANDEMIC

<p>➤ Centre launched PMGKAY to provide 5kg extra free foodgrain every month to 80cr people under National Food Security Act during pandemic. This was in addition to 5kg grain at subsidised rate</p> <p>➤ Though initially meant for only 3 months, govt extended scheme 6 times to provide free grain for 28</p>	<p>months. In Dec last year, govt amalgamated PMGKAY with NFSA and announced making the subsidised foodgrain free for the poor</p> <p>➤ With One Nation One Ration Card in place, those entitled to get free 5kg foodgrain, including migrant workers, can avail of them anywhere in the country, the PM said Saturday</p>
---	---



Gram Manchitra

- ❖ The Ministry of Panchayati Raj launched tools like the GIS app “Gram Manchitra” and mobile solution “mActionSoft”.

- ❖ It aims to empower Gram Panchayats and improve grassroots spatial planning and fostering active participation in the process.
- ❖ Utilizing geo-spatial technology, these tools offer a unified platform for visualizing and planning developmental works.
- ❖ The Gram Manchitra application serves as a single and unified Geo-Spatial platform.

Gajraj System



- ❖ The Indian Railways has initiated a pioneering step towards wildlife conservation by deploying the "Gajraj system".
- ❖ It is an Artificial Intelligence (AI)-based solution.
- ❖ It can alert loco pilots well in time about the presence of elephants on tracks.
- ❖ Railways will install this system in Assam, West Bengal, Odisha, Kerala, Jharkhand and Chhattisgarh and Tamil Nadu.
- ❖ The Intrusion Detection System (IDS) was introduced by the Northeast Frontier Railway (NFR) in December 2022.

Agniveervayu (women)

- ❖ The Indian Air Force (IAF) inducted a batch of female Agniveervayu (women) soldiers in its non-officer cadre for the first time.
- ❖ A total of 153 Agniveervayu (women) graduated from the Airmen Training School in Belagavi, Karnataka.
- ❖ While the Indian Army currently only inducts women in the Personnel Below Officers Rank (PBOR) cadre in the Corps of Military Police, it is expected to expand opportunities for women in other areas soon.
- ❖ Agniveers are cadets appointed to the Army wings under the Agnipath scheme, a short-term service youth recruitment.

Governor's role as Chancellor

Escalating row

Amid the rising conflict with Governor Arif Mohammed Khan, the Kerala Cabinet decides to remove him as Chancellor of State universities



THE ORDINANCE: State Cabinet resolves to request the Governor himself to promulgate an ordinance removing him from the position

THE IMPACT: The Governor will be divested of his powers as Chancellor and will be kept away from all aspects of university governance

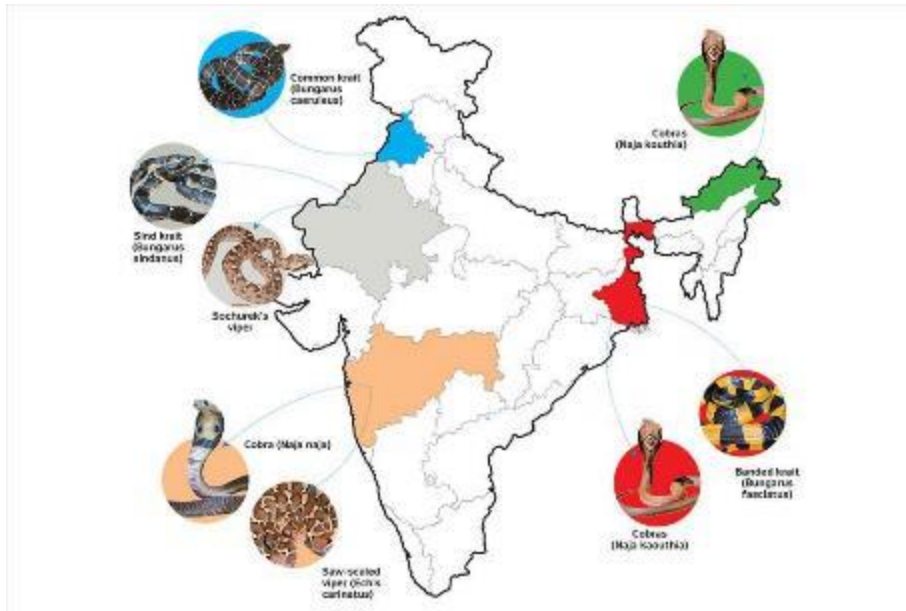
THE STATE'S REASONING: M.M. Punchhi Commission had recommended that States desist from burdening Governors with the Chancellor's role

- ❖ Recently, a Supreme Court bench, presided by Chief Justice of India D Y Chandrachud, reiterated that the governor acting as Chancellor are not bound the aid and advice of Council of Ministers and shall act only on his personal capacity.
- ❖ It was given in the context of Vice-Chancellor appointment of Kannur University in Kerala.
- ❖ The Governor has been designated as the Chancellor of most of the State public universities created by state legislature.
- ❖ The powers as a Chancellor have no relation to the exercise of the powers and duties as the Governor of the state.
- ❖ In 2022, West Bengal tried to replace the Governor with the Chief Minister as the Chancellor, while Tamil Nadu tried to transfer the power of appointing the Vice-Chancellor to the state government.
- ❖ In 1981 judgment in Hardwari Lal, Rohtak v. G.D. Tapase (Chandigarh), the High Court had held that “the Governor was the ex officio Chancellor of the University and by virtue of his office, he was not bound to act under the aid and advice of the council of ministers”.

Snakebites in India

- ❖ India has the biggest burden of deaths due to snakebites in the world, with most of the cases in rural India.
- ❖ Avoidable Deaths Network (ADN) have set up a hub in an Odisha village to look into lifesaving solutions for snakebites.

- ❖ ADN is a global membership network working on avoiding human deaths from natural hazards.
- ❖ In 2015, India ratified the WHO's Snakebite Envenoming Strategy for Prevention and Control, along with UN' Sendai Framework for halving the deaths by 2030.



Exercise Milan 2024

- ❖ The next edition of Exercise MILAN is scheduled to be held in February 2024.
- ❖ It is a biennial multilateral naval exercise hosted by the Indian Navy.
- ❖ It was originally conceived in line with India's "Look East Policy".
- ❖ 1st one was held the exercise in 1995.
- ❖ It is India's biggest naval exercise.
- ❖ The last edition of Milan is held off Visakhapatnam, Andhra Pradesh.

New Post Office Bill, 2023

- ❖ The Rajya Sabha passed the Post Office Bill, replacing the 125-year-old Indian Post Office Act of 1898.
- ❖ It is redefining the role of the central government and empowering the Director General of Postal Services.
- ❖ The Director General of Postal Services will be appointed to head India Post.
- ❖ It is also addressing key aspects such as interception of postal articles, liability exemptions, and the removal of certain offences and penalties.

- ❖ The government may intercept an article transmitted through India Post on specified grounds, including security of the state and public order.
- ❖ India Post (HQ: New Delhi) operates under the Department of Post within the Ministry of Communications.
- ❖ It was formed in 1854 as Crown service by Lord Dalhousie.
- ❖ There has been a significant increase in the number of post offices, with around 5,000 new offices opened between 2014 and 2023.

Postal Services Bill 2023

Replacing Indian Post Office act 1898

World's First Portable Hospital

- ❖ Aarogya Maitri Aid Cube is the world's first portable hospital.
- ❖ It was unveiled recently in Gurugram, Haryana.
- ❖ It was designed indigenously under Project BHISHM (Bharat Health Initiative for Sahyog Hita and Maitri).
- ❖ The hospital can be airlifted and assembled into 72 cubes that contain essential medical equipment and supplies.
- ❖ The cubes can support 200 survivors for 48 hours during natural disasters or crises.
- ❖ The "Aarogya Maitri Cube" is part of "Aarogya Maitri" project.
- ❖ The project aims to provide essential medical supplies to any developing country affected by natural disasters or humanitarian crises.

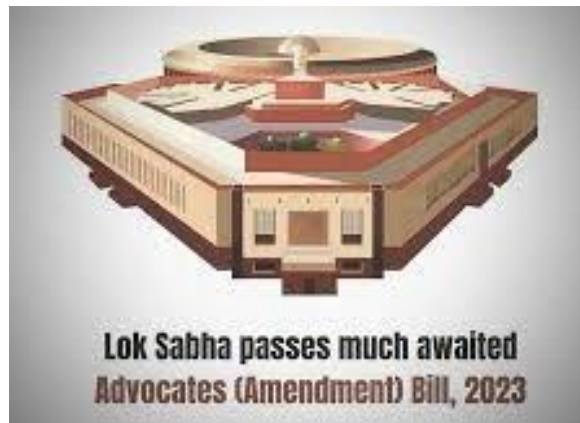


Garba Dance

- ❖ Recently, India's Garba dance was included in the Intangible Cultural Heritage list.
- ❖ It was done by the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage of UNESCO.
- ❖ It is a ritualistic and devotional dance performed throughout the State of Gujarat.
- ❖ Garba of Gujarat is the 15th cultural item from India to make it to the UNESCO list.
- ❖ Kolkata's Durga Puja was the last one added two years ago.
- ❖ Intangible Cultural Heritage (ICH) includes oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.



Advocates (Amendment) Bill, 2023



- ❖ The Bill has now been passed by the Lok Sabha in December 2023.
- ❖ It amends the Advocates Act, 1961.
- ❖ The Bill repeals certain sections related to touts under the Legal Practitioners Act, 1879.

- ❖ The 1961 Act consolidates the law related to legal practitioners and constitutes Bar Councils and the All-India Bar.
- ❖ The new bill aims at regulating the legal profession by a single act and seeks to target touts.
- ❖ The Bill provides that every High Court, district judge, sessions judge, district magistrate, and revenue officer (not below the rank of a district collector) may frame and publish lists of touts.
- ❖ Tout refers to a person who
 - (i) either proposes to procure or procures the employment of a legal practitioner in a legal business in return of any payment,
 - or (ii) frequents places such as the precincts of civil or criminal courts, revenue-offices, or railway stations to procure such employment.

NTWB's Inaugural Meeting



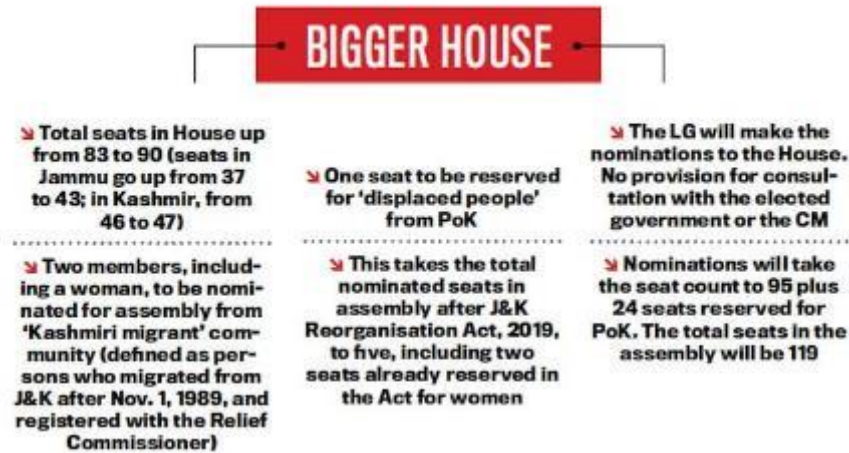
सत्यमेव जयते
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry
Government of India

- ❖ The inaugural meeting of the National Traders' Welfare Board (NTWB) was convened at New Delhi by the Department for Promotion of Industry and Internal Trade (DPIIT).
- ❖ The Board and its members play a crucial role in addressing issues pertinent to traders.

5th edition of Global Ayurveda Festival

- ❖ Vice President Jagdeep Dhankhar inaugurated the 5th edition of Global Ayurveda Festival in Thiruvananthapuram in Kerala.
- ❖ The theme for this year will be 'Emerging Challenges in Healthcare and a Resurgent Ayurveda'.
- ❖ It will also see India's first dedicated Business-to-Business (B2B) meet on Ayurveda medical tourism.

Bills for Kashmir 2023



- ❖ The Lok Sabha has passed two bills, the Jammu and Kashmir Reorganisation (Amendment) Bill, 2023, and the Jammu and Kashmir Reservation (Amendment) Bill, 2023.
- ❖ The Reorganisation bill seeks to reserve seats in the upcoming 114-seat Jammu and Kashmir Assembly for “Kashmiri migrants, people displaced from Pakistan-occupied Kashmir (PoK), and Scheduled Tribes.”
- ❖ The legislative assembly in Jammu and Kashmir initially had 100 members, including 24 for Pakistan-occupied Kashmir (PoK).
- ❖ In 1988, the seats were increased to 111.
- ❖ The 24 PoK seats were not considered in quorum calculation.
- ❖ It makes the total contestable seats 87, including four for Ladakh.
- ❖ After delimitation in 2020, the total seats rose to 114, including those for PoK.
- ❖ The state governor has the power to nominate 5 members to assembly.
- ❖ Out of these, two will be women, one a Kashmiri migrant and one from PoK.
- ❖ The J&K Reorganisation Act, 2019 provides for the reorganization of the state of Jammu and Kashmir into the union territories of Jammu and Kashmir (with legislature) and Ladakh (without legislature).
- ❖ It seeks to provide reservation of 9 seats for Scheduled Tribes for the first time.
- ❖ The Reservation bill replaces the term “weak and underprivileged classes” in the J&K Reservation Act, 2004, with “other backward classes.”

Amazon and IWAI

- ❖ The Inland Waterways Authority of India (IWAI) and Amazon Seller Services Private Limited (Amazon) signed a Memorandum of Understanding (MoU).

- ❖ It focuses on enhancing cargo movement and transporting customer shipments and products through inland waterways, specifically utilizing the river Ganga (National Waterway 1).
- ❖ The partnership allows Amazon to leverage all modes of transport in the country, including rail, air, water, and surface.
- ❖ The Union Ministry of Ports, Shipping & Waterways aims to increase inland water transport volumes significantly by 2030 and surpass 500 MMT by 2047, as per the Amrit Kaal Vision 2047.
- ❖ The plan includes increasing the number of operational waterways to 23 by 2030, with a vision to surpass 50 operational waterways by 2047.



Largest circular Railway



- ❖ India's largest circular railway will be established in Bengaluru.
- ❖ The total length of this circular railway will be 288 km.
- ❖ It will achieve this position by defeating the circular railway of Chennai.
- ❖ The length of Chennai Circular Railway is 235 km.

Amplifi 2.0



- ❖ The Union Ministry of Housing and Urban Affairs in India has launched the Amplifi 2.0 (Assessment and Monitoring Platform for Liveable, Inclusive and Future-ready urban India) portal.
- ❖ It has embarked to centralize and streamline raw data from cities across the country.
- ❖ It is designed to encompass data from over 4,000 Urban Local Bodies eventually.
- ❖ It already provides a wealth of information, covering diverse aspects such as total diesel consumption, water quality testing, annual healthcare expenditure, slum population statistics, and road accident fatalities.

CERT-In – RTI



- ❖ The Department of Personnel and Training (DoPT), has recently issued a notification exempting the Indian Computer Emergency Response Team (CERT-In) from the purview of the Right to Information Act, 2005.
- ❖ CERT-In, will now operate outside the scope of the RTI Act, 2005 will be limiting public access to information about its activities and functioning.
- ❖ However, the subsection does not apply to the information pertaining to the allegations of corruption and human rights violations.

- ❖ The prominent intelligence and security organizations such as Intelligence Bureau, Directorate of Revenue Intelligence, Directorate of Enforcement, Narcotics Control Bureau, and others are excluded from RTI.
- ❖ CERT-In is the national nodal agency responsible for handling cyber security threats, such as hacking and phishing.
- ❖ It operates under the Ministry of Electronics and Information Technology.

First-Ever Auction of Critical Mineral Blocks

Sl No	Block Name	State	Commodity	ML/CL*
1	Chutia-Nauhata Glauconite Block	Bihar	Potash	CL
2	Pipradih-Bhurwa Glauconite Block	Bihar	Potash	CL
3	Genjana Ni, Cr & PGE Block	Bihar	Nickel, Platinum Group Elements and Chromium	CL
4	Kundol Nickel and Chromium Block	Gujarat	Nickel & Chromium	CL
5	Muskaniya-Gareriatala-Barwari Potash Block	Jharkhand	Potash	CL
6	Dudhiasol East Nickel and Copper Block	Odisha	Nickel and Copper	ML
7	Babja Graphite and Manganese Block	Odisha	Graphite and Manganese	ML
8	Biarapalli Graphite and Manganese Block	Odisha	Graphite and Manganese	ML
9	Akharkata Graphite Block	Odisha	Graphite	CL
10	Vellakal Central (Segment-A) Molybdenum Block	Tamil Nadu	Molybdenum	CL
11	Nochchipatti Molybednum Block	Tamil Nadu	Molybdenum	CL
12	Velampatti North A & B Molybdenum Block	Tamil Nadu	Molybdenum	CL
13	Kurunjakulam Graphite Block	Tamil Nadu	Graphite	CL
14	Iluppakudi Graphite Block	Tamil Nadu	Graphite	CL
15	Mannadipatti Central Molybdenum Block	Tamil Nadu	Molybdenum	CL
16	Marudipatti (Central) Molybdenum Block	Tamil Nadu	Molybdenum	ML
17	Kurchha Glauconite Block	Uttar Pradesh	Potash	CL
18	Pahadi Kalan - Gora Kalan Phosphorite Block	Uttar Pradesh	Phosphorite	CL
19	Salal-Haimna Lithium, Titanium and Bauxite (Aluminous Laterite) Block	UT: Jammu and Kashmir	Lithium, Titanium and Bauxite (Aluminous Laterite)	CL
20	Katghora Lithium and REE Block	Chhattisgarh	Lithium and Rare Earth Elements	CL

- ❖ The process of auction of Critical and strategic Minerals have been initiated by the Central Government for the first time in India.
- ❖ The Central Government has amended the MMDR Act, 1957 through the MMDR Amendment Act, 2023.
- ❖ Under this, 24 critical and strategic minerals have been inserted in the MMDR Act, 1957.

- ❖ Further, the amended Act has also empowered Central Government to auction blocks of these minerals.
- ❖ Revenue from auction of these blocks will accrue to the concerned State Governments.
- ❖ They are located across Bihar, Chhattisgarh, Gujarat, Jharkhand, Odisha, Tamil Nadu, Uttar Pradesh and Jammu & Kashmir.
- ❖ There are two lithium blocks — one in Jammu & Kashmir and the other in Chhattisgarh.
- ❖ It is marking for the first time, the rights for mining lithium ore are auctioned to private parties.
- ❖ Before commencing operations, the licensee must obtain 15 approvals and clearances, including forest and environmental clearances, Gram Sabha consent, and others.
- ❖ As of now, India heavily depends on imports for lithium, nickel, and copper.

Surya Nutan

- ❖ Indian Oil Corporation unveiled a stationary, rechargeable and indoor cooking stove named Surya Nutan.
- ❖ Indian Oil and EKI Energy ink deal to promote the cooking stove.
- ❖ It uses the sun's energy to cook food while always being kept in the kitchen.
- ❖ The stove, which entails a one-time procurement cost and has zero maintenance, is being touted as a substitute for fossil fuels.



GIAN scheme

- ❖ The Ministry of Education is gearing up to restart the fourth phase of the Global Initiative of Academic Networks (GIAN).

- ❖ The Central government has spent at least ₹126 crore in payment to support foreign faculty's travel and honorarium since the inception of GIAN.
- ❖ Up to 41.4% (668) of academicians who visited India belonged to the U.S.
- ❖ The rest consisted of experts from the U.K. (143), Germany (93), Canada (89), France (56), Italy (58), Nordic countries (47), China, Japan and Taiwan (63), ASEAN countries (42) and other countries (259).
- ❖ Up to 72,000 Indian students directly benefitted.



Voluntary Code of Ethics

- ❖ Four leading gaming industry bodies in India signed a voluntary code of ethics for online gaming intermediaries.
- ❖ It aims to build a "safe, trusted, and accountable" sector with a focus on user protection.
- ❖ This follows the Ministry of Electronics and Information Technology (MeitY) notifying gaming-related amendments to the IT Act 2021 in April 2023.

Arbitration agreement on non-signatory firms

- ❖ The Supreme Court held that an arbitration agreement can be binding even on non-signatory firms under the 'group of companies' doctrine.
- ❖ This doctrine makes an arbitration agreement binding on a firm which, though not a signatory, is a member of a group of companies which is a party to the agreement.
- ❖ The definition of "parties" under Section 2(1)(h), read with Section 7 of the Arbitration Act, 1996 included both the signatory as well as non-signatory parties.

Section I
The Doctrine

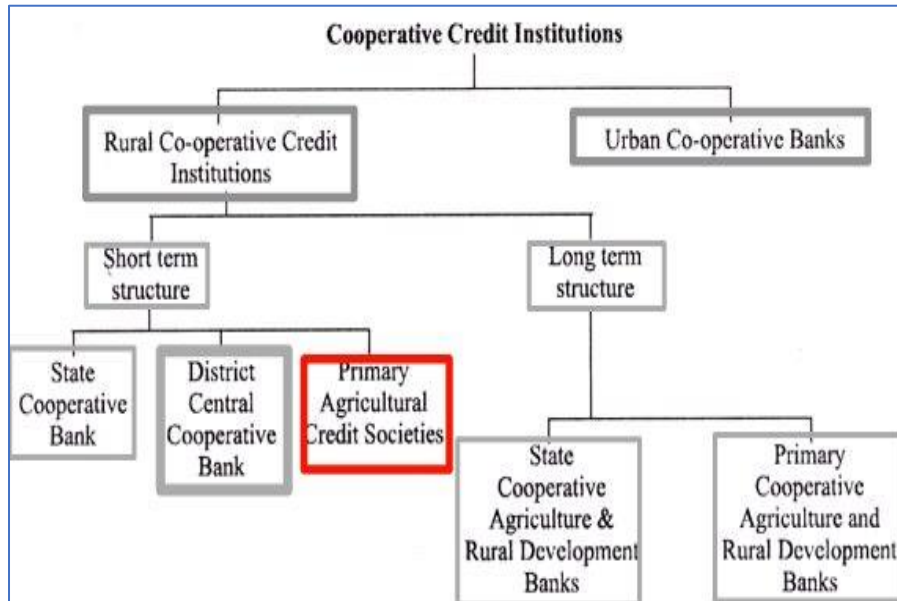
- A non-signatory may benefit from or be bound by an arbitration agreement signed by a group company because of its role in the transaction
- Used to justify extending the scope and effects of a tribunal's jurisdiction to non-signatory companies of the corporate group to which the signatory company belongs

India Art, Architecture, and Design Biennale (IAADB) 2023



- ❖ The first India Art, Architecture & Design Biennale (IAADB) 2023 is launched in New Delhi.
- ❖ This initiative is aligned with a nationwide campaign to revitalize museums and develop cultural spaces in five major cities: Kolkata, Delhi, Mumbai, Ahmedabad, and Varanasi.
- ❖ The Kochi-Muziris Biennale held in Kerala 2012.
- ❖ The Bihar Museum Biennale started in 2021 in Patna.

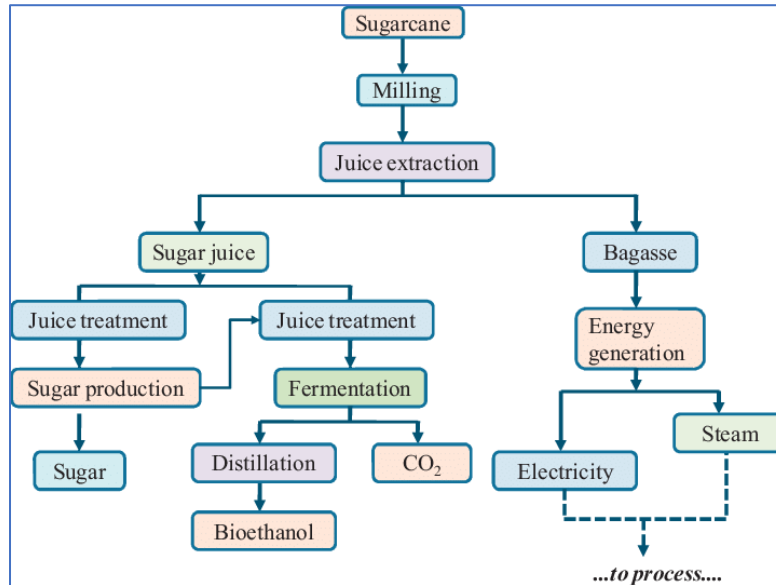
Model bye-laws for PACs



- ❖ The Ministry of Cooperation has introduced Model Bye laws aimed at revitalizing Primary Agricultural Credit Societies (PACS).
- ❖ The Model Byelaws refer to a set of guidelines or regulations to govern the functioning and operations of PACS at the grassroots level.
- ❖ By adopting Model Byelaws, PACS would be able to serve as multi-service centers, improve their operational efficiency, transparency and accountability and provide agricultural credit and various non-credit services, etc. in rural areas.
- ❖ PACS are village level cooperative credit societies that serve as the last link in a three-tier cooperative credit structure.
- ❖ There were 1.02 lakh PACS in the country.
- ❖ Maharashtra has 20,897 PACS of which 11,326 are in losses.

Sugarcane juice and Ethanol production

- ❖ The Centre banned the use of 'sugarcane juice and sugar syrup' for ethanol production in the 2023-24 supply year.
- ❖ It aims to maintain adequate sugar availability for domestic consumption and to keep prices under check.
- ❖ However, the government has allowed use of 'B-molasses', a cane by-product, for ethanol production in 2023-24.
- ❖ Ethanol, a colourless liquid, is blended with fuel as part of the government's initiative to reduce reliance on crude oil imports.



SC verdict on Art 370



- ❖ A Constitution Bench headed by Chief Justice of India unanimously upheld the Central government's 2019 decision to abrogate Article 370.
- ❖ Article 370 of the Constitution conferred special status on the erstwhile State of Jammu and Kashmir (J&K).

- ❖ The CJI notes that Article 370 was only a provision to take care of the transition from a princely State to the Union.
- ❖ The court held that J&K did not retain any internal sovereignty after its integration and that the concurrence of the State Government was not required to apply the Indian Constitution to the State.
- ❖ It also upheld the carving out of Ladakh as a Union Territory.
- ❖ The court also directed the Election Commission of India to take steps to conduct elections to the J&K Legislative Assembly by September 30, 2024.

Background of special status

- ❖ Jammu and Kashmir enjoyed special status under Article 370 of the Constitution of India.
- ❖ This Article describes it as a temporary provision and that it will cease to be operative if the President issues a public notification to that effect.
- ❖ However, prior to that, a recommendation is necessary from the Constituent Assembly of Jammu and Kashmir.
- ❖ As a result of Article 370, Jammu and Kashmir had its own Constitution.
- ❖ All laws passed by Parliament will not be applicable to the State, unless the State government gives its concurrence.
- ❖ The Constitution (Application to Jammu and Kashmir) Order, 1954, lists the Articles and provisions that apply to J&K.
- ❖ Further, the President also listed a set of exceptions under Article 35A of the Constitution.
- ❖ This Article does not figure in the text of the Constitution of India, but figures only in the J&K's Constitution.
- ❖ While the 1954 presidential order constituted a founding legal document for Jammu and Kashmir.
- ❖ Article 35A protected the exclusive laws – such as the bar on outsiders buying property and women marrying non-Kashmiris losing their property rights - of the State.

Mahua Moitra expulsion

- ❖ Trinamool Congress leader Mahua Moitra was expelled from Lok Sabha on the recommendation of an ethics committee.
- ❖ She was accused of taking bribes, including crore in cash and gifts, for asking questions critical of the government in parliament.
- ❖ Parliamentary Affairs Minister moved a motion to expel the leader for her "unethical conduct", and it was adopted by a voice vote.

- ❖ In Lok Sabha, the privileges committee looks into complaints raised by MPs against officials, media or other MPs.
- ❖ The ethics panel is the only committee that probes a layperson's complaints against lawmakers of Lok Sabha.
- ❖ Ms Moitra has challenged her Lok Sabha expulsion in the Supreme Court.
- ❖ Although Article 122 of the Constitution gives immunity to proceedings in parliament from being challenged in court, she can exercise certain legal rights.
- ❖ The Ethics Committee looks into what is termed as unethical conduct of the MPs.
- ❖ Unethical conduct has not been defined by the Rules.
- ❖ In December 2005, 11 MPs - 10 from Lok Sabha and one from Rajya Sabha - were expelled over a cash-for-query scandal.



Truth and Reconciliation Commission

- ❖ Justice Sanjay Kishan Kaul recommended the setting up of an "impartial Truth and Reconciliation Commission".
- ❖ It is also known as a 'truth and justice commission' or simply, a 'truth commission'.
- ❖ It is an official mechanism to not just acknowledge, but also reveal, wrongdoings by a government or sometimes non-state actors or combatants so that conflicts of the past can be addressed and resolved.
- ❖ It aims to investigate and report on the violation of human rights perpetrated by both state and non-state actors in Jammu and Kashmir since the 1980s and recommend measures for reconciliation.

- ❖ Earlier truth commissions from Uganda (1974) to Kenya (2009) are well known.
- ❖ In South Africa, the first post-apartheid government of President Nelson Mandela established a TRC in 1995.

Karan Singh's Proclamation of 1949

- ❖ On 25 November 1949, a Proclamation was issued for the State of Jammu and Kashmir by Yuvraj Karan Singh.
- ❖ With the issuance of the Proclamation, paragraph 8 of the Instrument of Accession ceased to be of legal consequence.
- ❖ The 9 Proclamation reflects the full and final surrender of sovereignty by Jammu and Kashmir, through its sovereign ruler, to India.
- ❖ Karan Singh's proclamation stated that the Government of India Act, 1935, which until then governed the constitutional relationship between J&K and the dominion of India, will stand repealed.

ACCESSION AND AFTER	
<p>OCT 26, 1947: Following the invasion by tribesmen supported by Pak army, Maharaja Hari Singh sought Indian assistance, eventually leading him to sign Instrument of Accession (IoA).</p> <p>MAY 27, 1949: Constituent Assembly of India cleared draft Article 370, as per the terms in the IoA.</p> <p>MAY 1, 1951: Dr Karan Singh issued a proclamation convening the Constituent Assembly for the State.</p>	<p>1952: Delhi Agreement between Sheikh Abdullah and Prime Minister Jawaharlal Nehru expanded the relationship between India and J&K.</p> <p>MAY 15, 1954: Art. 35A introduced through a Presidential Order to protect laws passed by state legislature regarding permanent residents.</p> <p>NOV 17, 1957: Constitution of State of J&K adopted; came into force on Jan 26, 1958.</p>

Forest Certification Scheme



- ❖ This national forest certification scheme offers voluntary third-party certification designed to promote sustainable forest management and agroforestry in the country.
- ❖ The scheme includes forest management certification, tree outside forest management certification, and chain of custody certification.
- ❖ This provides market incentives to various entities that adhere to responsible forest management and agroforestry practices in their operations.
- ❖ The Forest Management certification is based on the Indian Forest Management Standard, consisting of 8 criteria, 69 indicators and 254 verifiers.
- ❖ It is an integral part of the National Working Plan Code 2023.
- ❖ A separate Trees Outside Forests Standard, is now introduced as a part of the newly launched Indian Forest & Wood Certification Scheme.

Pooja at Protected Monuments

WHAT ARE PROTECTED MONUMENTS

Centrally Protected Monuments are **sites that are protected under the Ancient Monuments and Archaeological Sites and Remains Act, 1958 (AMASR Act)**. The Act protects monuments and sites that are more than 100 years old.

The regulations under the AMASR Act are implemented by the Archaeological Survey of India (ASI).



Activities around such sites are strictly regulated

An area within **100 metres** of such monuments is considered a prohibited area. **All construction activities are banned within this area.**

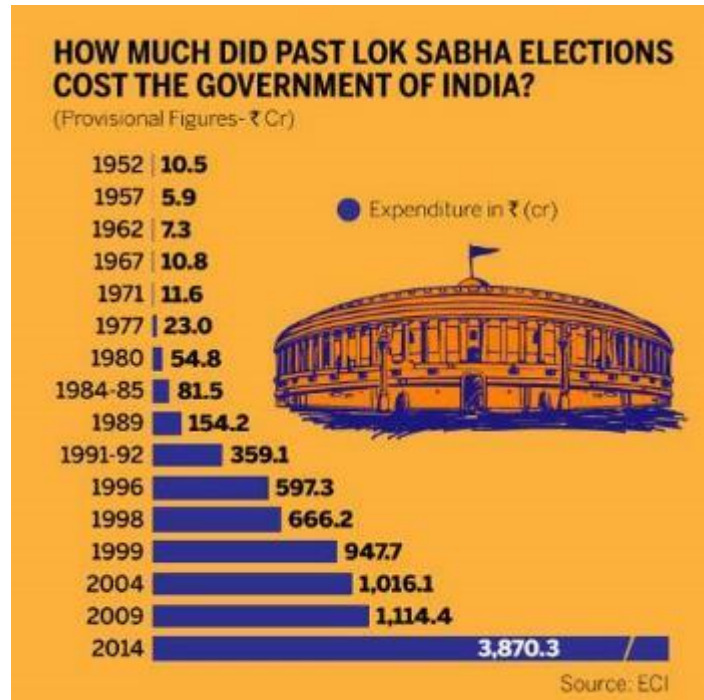


The area within **200 metres** of the monument is a regulated area. **Any repair or modifications of structures within this area can be done only with prior permission from the ASI.**

- ❖ A parliamentary panel has recommended the government to explore the possibility of permitting puja and worship at monuments protected by the Archaeological Survey of India (ASI) that have religious significance.
- ❖ 3,693 centrally protected monuments and archaeological sites are maintained by the ASI.
- ❖ Of that, a little less than a fourth (820) have places of worship.

- ❖ The rest are considered non-living monuments where no new religious rituals can be started or conducted.
- ❖ The sites that have places of worship include temples, mosques, dargahs and churches.
- ❖ According to ASI rules, prayers are allowed at protected sites only if they were “functioning places of worship” at the time it took charge of them.
- ❖ The best-known example of a living ASI monument is the Taj Mahal where namaz is held every Friday.
- ❖ Other notable living monuments include three mosques in Kannauj, Roman Catholic Church in Meerut, Nila Mosque in Delhi’s Hauz Khas Village and several Buddhist monasteries in Ladakh.

Additional Funds for 2024 Lok Sabha Elections



- ❖ The government has sought Parliament’s approval to spend an additional Rs 3,147.92 crore on the exercise and electronic voting machines (EVMs).
- ❖ It is taking the total proposed expenditure on the polls to over Rs 5,000 crore.
- ❖ Rs 3,147.92 crore was proposed for the Law Ministry to fund election-related expenses.
- ❖ Rs 73.67 crore is for the Election Commission for administrative expenses.
- ❖ Rs 36.20 crore is for “testing and maintenance of EVMs procured for ensuing Lok Sabha elections, 2024”.

- ❖ Rs 575.07 is crore for “procurement of EVMs for conducting Lok Sabha elections, 2024.
- ❖ The expenditure on the 2014, 2009 and 2004 elections had been Rs 3,870.34 crore, Rs 1,114.38 crore and Rs 1,016.08 crore respectively.

Adoption of Emission Control Technology in Coal plants

Classification of coal TPPs under three categories			
Category	Plants in Delhi-NCR	Parameters other than SO2 norms	SO2 emissions
A: Within 10 km radius of the National Capital Region of cities with million plus population	Dadri TPP, Indira Gandhi TPP, Mahatma Gandhi TPP and Panipat TPP	December 31, 2022	December 31, 2024
B: Within 10 km radius of critically polluted areas or non-attainment cities	-	December 31, 2023	December 31, 2025
C: Remaining plants	Harduaganj Thermal Power Station, Guru Gobind Singh TPP, Guru Hargobind TPP, Talwandi Sabo TPP, Rajiv Gandhi TPP, Yamunanagar TPP, Rajpura TPP	December 31, 2024	December 31, 2026

- ❖ Less than eight percent of India’s coal-based power plants have adopted the recommended technology to control Sulphur dioxide emissions.
- ❖ Flue Gas Desulfurization (FGD) units is crucial for reducing SO2 emissions.
- ❖ Only 16.5 Gigawatts (GW) of coal plants in India have installed FGDs and Circulating Fluidized Bed Combustion (CFBC) boilers.
- ❖ 92 percent of the country’s coal power plants operate without FGDs.
- ❖ India is the world’s largest emitter of Sulphur dioxide.

Mission Antarctica

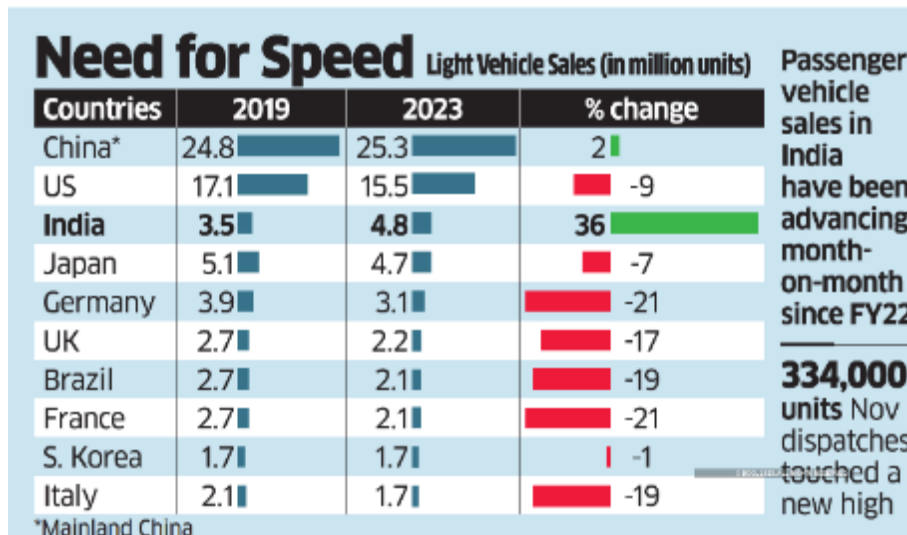
- ❖ A team of Himalayan Mountaineering Institute, Darjeeling carried out ‘Mission Antarctica’.
- ❖ The expedition, which commenced in 2021, was undertaken by a team of three trekkers, led by Group Captain Jai Kishan.

- ❖ The team hoisted the National Flag, measuring 7,500 sq ft and weighing 75 kilograms across the length and breadth of the country.
- ❖ They also hosted atop Mt Rhenock in Sikkim Himalayas at an altitude of 16,500 feet.
- ❖ It was recorded as the biggest Indian National Flag hoisted atop a mountain in the Asia Book of Records and India Book of Records.

Trending Decline in Female Unemployment Rate

- ❖ The female labour force participation rate is rising to 24% compared with 23.2% in the previous quarter and 21.7% in Q2FY23.
- ❖ The unemployment rate, although higher than men, declined below the 9% mark in Q2FY24 for the first time in over three years.
- ❖ Female urban unemployment fell to 8.6% in Q2FY24 compared with 9.1% in the previous quarter.
- ❖ Net New Women EPFO subscribers surge to 28.69 Lakh in FY23
- ❖ The overall unemployment rate remained unchanged from the previous quarter at 6.6%.
- ❖ The male unemployment rate rose to 6% from 5.9% in the previous quarter.

India's Light Vehicle Market



- ❖ India has been the fastest growing among the world's 10 largest automobile markets this calendar year.
- ❖ India is the world's third largest light vehicle (less than 6 tonnes) market, behind China and the United States.

- ❖ Auto sales in India are estimated to advance 36 per cent from 2019 levels to 4.8 million units in 2023.
- ❖ Auto sales in India reached a record high of 3.8 million units in the Financial Year 2022-23.

Appointment of Chief Election Commissioner

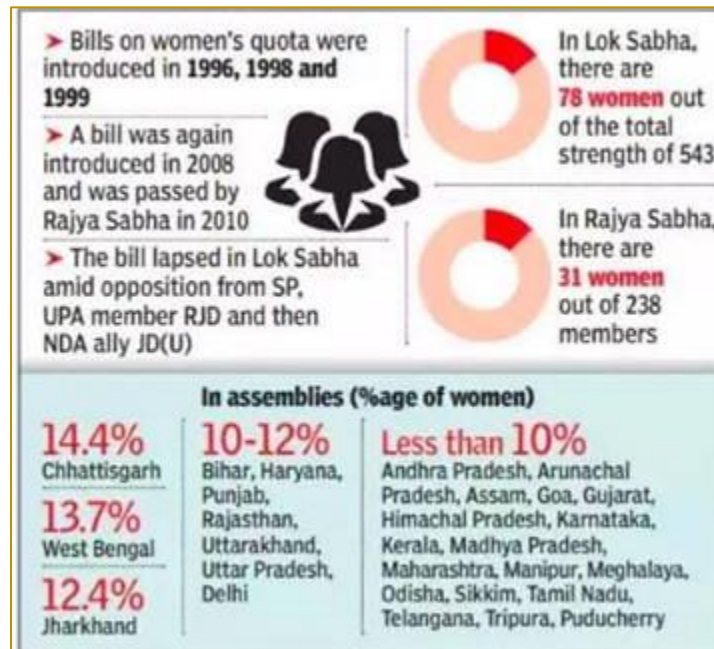
- ❖ The Rajya Sabha passed the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill.
- ❖ The legislation will guide the appointment of the Chief Election Commissioner (CEC) and the Election Commissioners (EC) in future.
- ❖ This legislation replaces the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991.
- ❖ The number of ECs will be determined periodically by the President.
- ❖ The appointment of the Commission will be made by the President based on the recommendations of the Selection Committee.
- ❖ The Committee consists of
 - Prime Minister
 - A cabinet minister, and
 - The Leader of the Opposition in the Lok Sabha (or the leader of the single largest opposition party).
- ❖ Recently, SC (Anoop Baranwal case) ruled that the election commissioners shall be selected by a committee comprising the Prime Minister, the Leader of Opposition, and the Chief Justice, until the parliament frames a law prescribing the selection process.

What the new bill proposes

<p>WHAT THE LAW IS RIGHT NOW CEC, ECs are appointed by the PM and council of ministers, under the seal of the President.</p>	<p>THE PLAN AHEAD The government tabled the Chief Election Commissioner and other Election Commissioners (Appointment Conditions of Service and Term of Office) Bill, 2023 that says:</p>  <ul style="list-style-type: none"> ● Search panel, led by the law minister with 2 secy as members, to shortlist five names. ● Selection committee - comprising PM, LoP and a Union cabinet minister - to review names and recommend appointments; the panel can also consider other names. ● President to ratify appointments.
<p>WHAT DID SC SAY ON MARCH 2? A bench headed by Justice KM Joseph said ECs and CECs will be chosen by a panel comprising PM, LoP and CJ, till Parliament passes a law.</p>	

Bills For Women's Quota In J&K And Puducherry

- ❖ The Lok Sabha passed two Bills to extend the provisions of the Constitution (106th Amendment) Act to the Union Territories of Puducherry and Jammu and Kashmir.
- ❖ It aims to grants 33% reservation for women in Parliament and State legislatures.
- ❖ The provisions for providing reservations for women in the Legislative Assembly of the Union Territory of Puducherry are also required to be made by Parliament by amending the Government of Union Territories Act, 1963.
- ❖ Jammu and Kashmir had no MLA for the last six years.
- ❖ The quota for women in the Lok Sabha and Assemblies will continue for 15 years and Parliament can later extend the benefit period.



Women voters in 2029

- ❖ A report by the SBI has claimed that women voters in India will surpass male voters from 2029 onwards.
- ❖ In the upcoming general election in 2024, it has projected a total voter turnout of around 68 crores, of which women voters could be at 33 crore (49%).
- ❖ From 2029 onwards, the women voters at 37 crores could be outstripping registered men voters at 36 crores.
- ❖ It further projected that in 2047, women's voter turnout might increase to 55% and men's voter turnout might fall to 45%.

- ❖ In the 1951 elections, only eight crores voted.
- ❖ In 2009 elections, this was 42 crores, of which 19 crores were women.
- ❖ In 2014, the voter turnout was increased by 13.7 crore to 55 crore of which 26 crores were women.
- ❖ It was 5.8 times higher for women and 5.2 times for men.
- ❖ In the 2019 Lok Sabha elections, female voter turnout rate was higher than males.
- ❖ As many as 67.18% of women voters cast a vote in the 2019 general election in contrast to 67.01% of males.



Electronic Origin Data Exchange System (EODES)

- ❖ The India-Korea Electronic Origin Data Exchange System (EODES) was launched recently.
- ❖ The system aims to facilitate the smooth implementation of the India-Korea Comprehensive Economic Partnership Agreement (CEPA).
- ❖ It enhances Customs cooperation, automates data exchange, and is expected to set a global standard in international Customs collaboration.

Flying Wing Technology Demonstrator

- ❖ DRDO successfully flew the Autonomous Flying Wing Technology Demonstrator, an indigenous high-speed flying-wing Unmanned Aerial Vehicle (UAV).

- ❖ With this flight, India has joined the elite club of countries to have mastered the controls for the flying wing technology.
- ❖ It is par with the advanced bombers such as American Northrop Grumman's B-2 'Spirit' in the US military aviation fleet.



Bhashini AI Tool



- ❖ Prime Minister used a real-time artificial intelligence-based tool – 'Bhashini' – during his address at Kashi Tamil Sangamam in Varanasi.
- ❖ 'Bhashini' was tailored to serve the Tamil-speaking audience specifically during the event.
- ❖ It operates as an AI-driven language translation system facilitating conversations among individuals speaking different Indian languages.
- ❖ It allows individuals to communicate in their native language, bridging language barriers.
- ❖ Bhasha Daan serves as an initiative within Project Bhashini, focusing on gathering language inputs across multiple Indian languages.

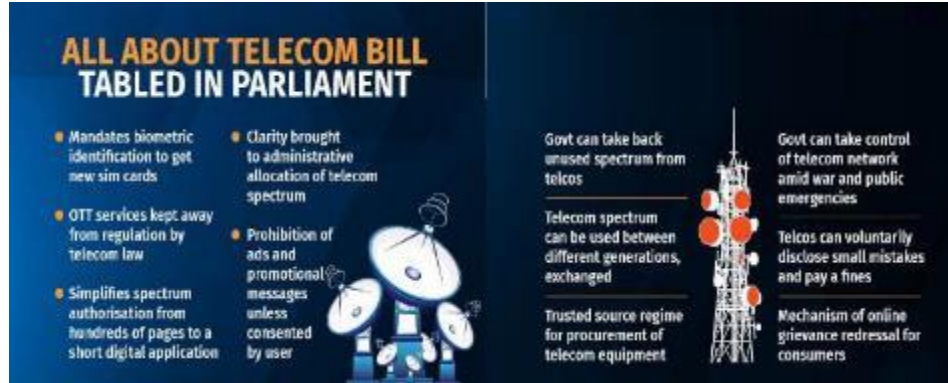
Logistics ease across different states 2023

- ❖ The “Logistics Ease Across Different State (LEADS) 2023” report was released recently.
- ❖ LEADS was conceived on the lines of Logistics Performance Index of World Bank in 2018 and has evolved over time.
- ❖ This provides insights into improvement of logistics performance at State/UT level.
- ❖ The country's logistics cost is estimated in the range of 7.8 per cent to 8.9 per cent.
- ❖ Performance Highlights from LEADS 2023.

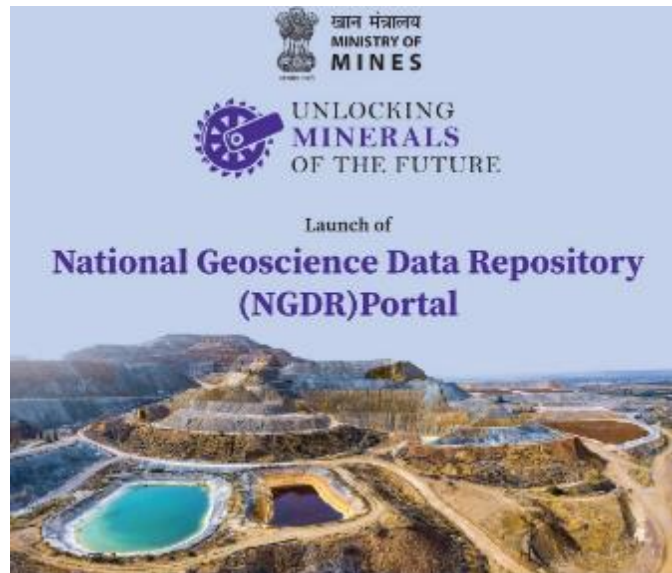
	Achievers	Fast Movers	Aspirers
Coastal Group	Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu	Kerala, Maharashtra	Goa, Odisha, West Bengal
Landlocked Group	Haryana, Punjab, Telangana, Uttar Pradesh	Madhya Pradesh, Rajasthan, Uttarakhand	Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand
North-East Group	Assam, Sikkim, Tripura	Arunachal Pradesh, Nagaland	Manipur, Meghalaya, Mizoram
Union Territories	Chandigarh, Delhi	Andaman & Nicobar, Lakshadweep, Puducherry	Daman & Diu/ Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh

The Telecommunications Bill, 2023

- ❖ The Telecommunications Bill, 2023 introduced in the Lok Sabha proposes the first comprehensive rewrite of telecommunications law in 138 years.
- ❖ It will replace the Telegraph Act of 1885.
- ❖ The Bill requires telecom customers to undergo “biometric authentication”, the form of which will be notified later.
- ❖ Provisions on lawful interception, or surveillance of telecom communications, have been retained as per the earlier Act.
- ❖ The Bill allows the Union government to take over the operations of a telecom network on the grounds of public emergency or safety issues.
- ❖ The Bill opens the door for spectrum allotments to satellite internet providers such as Bharti-backed OneWeb and US-based firms, including SpaceX’s Starlink.



National Geoscience Data Repository Portal

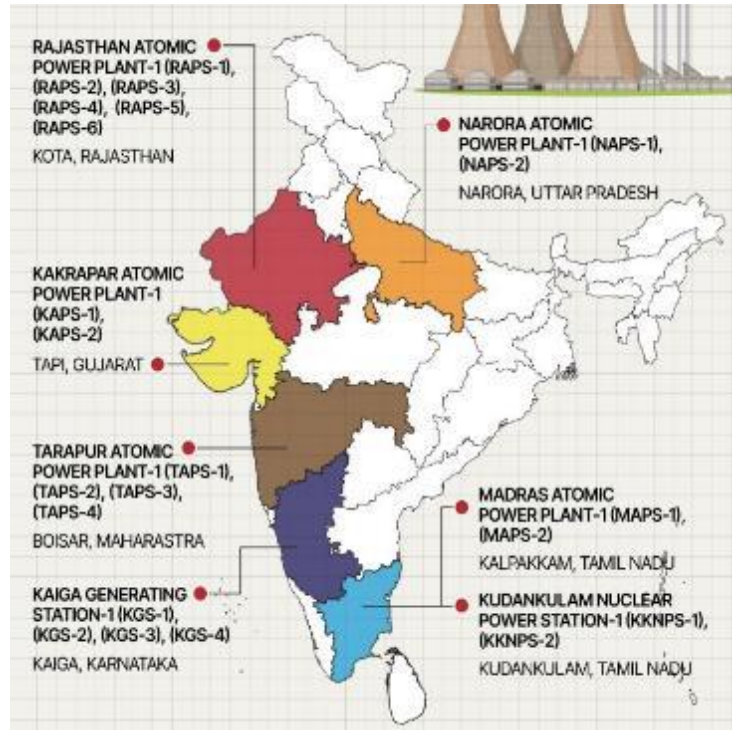


- ❖ Ministry of Mines launched the National Geoscience Data Repository (NGDR) Portal in New Delhi.
- ❖ NGDR is a comprehensive online platform for accessing, sharing, and analyzing geospatial information across the nation.
- ❖ This is a significant leap forward in democratizing critical geoscience data, empowering stakeholders across industries and academia with unprecedented access to invaluable resources.

Kakrapar Atomic Power Project Unit 4

- ❖ The fourth unit of the Kakrapar Atomic Power Project (KAPP-4) in Gujarat, became critical.
- ❖ The 700 MWe units are the largest indigenous nuclear power reactors to be built by the Nuclear Power Corporation of India Limited.

- ❖ The reactor's first criticality was ascertained after it met all the conditions set out by the Atomic Energy Regulatory Board.
- ❖ The NPCIL presently operates 23 nuclear electricity reactors with a total capacity of 7,480 MWe.



India's First Winter Expedition to Arctic

- ❖ India begins its 1st winter expedition to the Ny-Alesund research base in Svalbard, Norway.
- ❖ The National Centre for Polar and Ocean Research (NCPOR) has a research station, Himadri.
- ❖ The expedition will collect data on atmospheric processes, aurora borealis, atmospheric electricity, and space physics studies.
- ❖ The Arctic Sea ice is declining at a rate of 13% per decade.
- ❖ The study of this region is important to understand its impact on Indian monsoons and the tropical climate.
- ❖ The NCPOR plans to expand its operations in the Arctic and conduct research activities in the Canadian High Arctic and Greenland.
- ❖ In 1990, the National Institute of Polar Research, Japan, was the first to establish a research station in Ny-Ålesund.

Scheme to expedite the exploration of critical minerals



- ❖ The Ministry of Mines has introduced a new scheme to expedite the exploration of critical and deep-seated minerals.
- ❖ It aims to eliminate delays in project approvals, accelerate project execution, and encourage larger companies and international players to engage in exploration projects with NMET funding.
- ❖ The ministry of Mines will directly sanction exploration projects to Notified Private Exploration Agencies (NPEAs).
- ❖ These NPEAs are now permitted to bid for auctioning mineral blocks they have explored, a privilege previously unavailable to them.

Ambiguity in the Definition of 'Child'

- ❖ The parliamentary panel said that the country needs a uniform definition of 'child' under various laws.
- ❖ According to the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986 (CALPRA), 'child' means a person who has not completed his fourteenth year of age or such age as may be specified in the Right of Children to Free and Compulsory Education Act, 2009, whichever is more.
- ❖ The amendment made to the Act in 2016 defines the child falling in the age group of (14-18) years.

- ❖ Under the Right of Children to Free and Compulsory Education Act, 2009, 'Child' means a male or female aged six to fourteen years.
- ❖ As per the Minimum Wages Act, 1948 vide its amendment in 1986 a 'child' is defined as a person who has not completed his fourteenth year of age.
- ❖ The Juvenile Justice (Care and Protection of Children) Act, 2015 defines 'child' as a person who has not completed eighteen years of age.
- ❖ The term 'adolescent' is not defined in JJ Act, 2015.
- ❖ The Rashtriya Kishore Swasthya Karyakaram defines an adolescent as a person between 10-19 years.
- ❖ The employment of children in contravention of the CALPRA Act is a cognizable offence, whereas under the JJ Act, 2015, it is a non-cognizable offence.

CHILD DEFINITION	
According to	Child age
1. Criminal law 1860 IPC sec82	7-12 years
2. Juvenile justice Act	Boy - 16 Girls - 18
3. Child Marriage Restraint Act 1929	Male - 21 Female - 18
4. Labour Laws and Appentent act 1951	>15 years
5. The census of India	> 14 years
6. Social Scientists include	15 - 19 years
<ul style="list-style-type: none"> ■ Magnitude 	
Birth rate	41.9% - 1960-1961
	29.5% - 1990-1991
<p>The census of India estimated that by 1991 there would be 7.8 million less girls than boys and 78% of children reside in rural areas.</p>	

Doctors under Bharatiya Nyaya Sanhita

- ❖ Doctors will not be exempted from imprisonment if their negligent actions lead to the death of their patient.
- ❖ Currently, under Section 304A of the Indian Penal Code, 1860, the punishment for causing death by negligence is two years imprisonment and fine or both.
- ❖ The BNSS, which will replace the IPC, increases the punishment for such acts to five years.
- ❖ But it specifies that doctors will still get the lower punishment of two years jail time if convicted.
- ❖ Doctors, however, are already protected from criminal proceedings in deaths resulting from actions done in good faith for the benefit of the patient with their consent.

Three bills introduced

<p style="text-align: center;">Indian Penal Code (IPC), 1860</p> <p style="text-align: center;">TO BE REPLACED BY</p> <p style="text-align: center;">Bharatiya Nyaya Sanhita Bill, 2023</p> <ul style="list-style-type: none"> • It will have 356 sections (instead of 511 sections in IPC) • 175 sections have been amended • 8 sections have been added, and 22 sections have been repealed 	<p style="text-align: center;">Code of Criminal Procedure (CrPC), 1973</p> <p style="text-align: center;">TO BE REPLACED BY</p> <p style="text-align: center;">Bharatiya Nagarik Suraksha Sanhita, 2023</p> <ul style="list-style-type: none"> • It will have 533 sections (instead of 478 sections in CrPC) • 160 sections have been changed • 9 sections have been added, and 9 sections have been repealed
<p style="text-align: center;">Indian Evidence Act, 1872</p> <p style="text-align: center;">TO BE REPLACED BY</p> <p style="text-align: center;">Bharatiya Sakshya Bill, 2023</p>	<ul style="list-style-type: none"> • It will have 170 sections (instead of 167 sections in IEA) • 23 sections have been changed • 1 section has been added, and 5 sections have been repealed

Reservation for People with blood Disorder

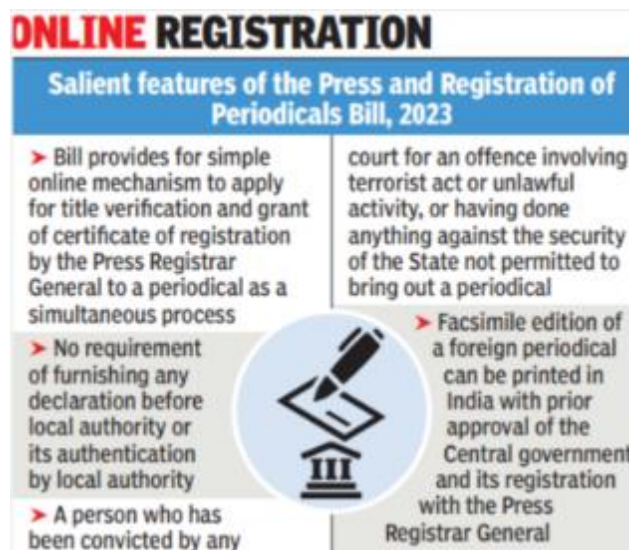
TYPES OF DISABILITIES INCREASED TO 21 IN ACT

<p>➤ The Rights of Persons with Disabilities Act, which overwrote the former Persons with Disabilities Act of 1995, was passed by Parliament in Dec 2016</p> <p>➤ The number of disabilities have been increased from seven to 21</p> <p>➤ It added acid attack victims, speech and language disability and specific-learning disability among the list of disabilities</p>		<p>➤ Dwarfism and muscular dystrophy have been indicated as a separate class of specified disability</p> <p>➤ The Act also casts the responsibility up on the state governments to take measures to ensure that the disabled persons enjoy their rights equally with others</p> <p>➤ Additional benefits such as reservation in higher education, government jobs and reservation in allocation of land have also been provided for such persons</p>
<p>➤ The new categories of disabilities also include three blood disorders – Thalassemia, Hemophilia and Sickle Cell disease</p>		

- ❖ People suffering from blood disorders like thalassemia, haemophilia and sickle cell disease are not eligible for reservation in government jobs under the Persons with Disabilities category.
- ❖ The three diseases were included in the list of disabilities under the Right to Persons with Disabilities Act of 2016.
- ❖ But, as per Section 34 of the 2016 law, aforementioned categories are not eligible for the benefit of reservation in jobs in Government Establishments.
- ❖ 4% reservation in government jobs is available for people with multiple disabilities from the various categories.

Press and Registration of Periodicals Bill, 2023

- ❖ This Bill will replace a British-era law governing the publishing industry and simplify the process of registration of periodicals.
- ❖ It will make the registration of periodicals a one-step process as against the eight-step process in the archaic law.
- ❖ The Bill replaces the Press and Registration of Books (PRB) Act, 1867.
- ❖ Newspapers and periodicals will now be able to get registered within 60 days as against the two-three years required earlier.
- ❖ For certain violations, financial penalties have been proposed instead of conviction as earlier.



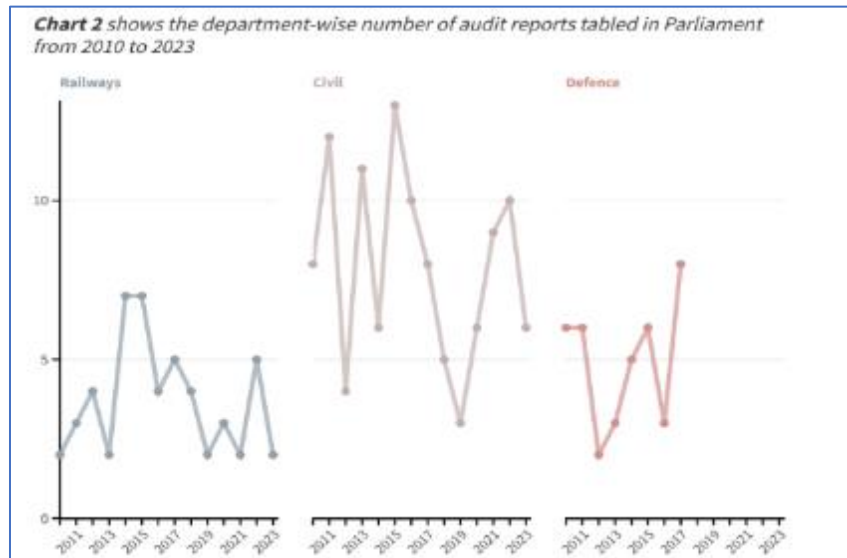
Project PRAYAS

- ❖ The International Organisation for Migration (IOM) launched Project PRAYAS.
- ❖ It aims to facilitate safe, orderly and regular migration for Indian workers and students.
- ❖ The PRAYAS stands for Promoting Regular & Assisted Migration for Youth and Skilled Professionals.
- ❖ Established in 1951, IOM is a UN agency dedicated to promoting humane and orderly migration.

CAG Audits in 2023

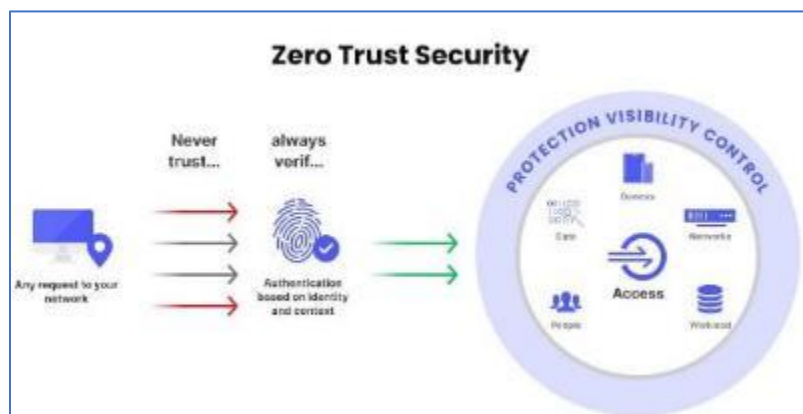
- ❖ In the calendar year 2023, only 18 audit reports on the Union government's accounts, prepared by the Comptroller and Auditor General (CAG), were tabled in Parliament.

- ❖ This number has been steadily decreasing over the last few years – averaging at 22 between 2019 and 2023.
- ❖ This is down from 40 between 2014 and 2018 – 2023 saw a new low.
- ❖ 14 audit reports of the Railways Department were tabled in the last five years, down from 27 in the previous five-year period.
- ❖ The CAG is a constitutional authority which heads the Indian Audit and Accounts Department (IA&AD).
- ❖ The two entities are known as the Supreme Audit Institution of India (SAI).



Zero Trust Authentication

- ❖ The Centre has set up a secure e-mail set-up for 10,000 users in critical ministries and departments.
- ❖ The e-mail system that works on Zero Trust Authentication (ZTA) has been designed by the National Informatics Centre (NIC).



- ❖ The 10,000 emails span across 17 union ministries and departments.
- ❖ For this, User name and passwords are not enough, now a two-factor authentication has been activated.
- ❖ Other than passwords, facial recognition or biometrics is required.
- ❖ The log-in and log-out times are recorded and monitored.
- ❖ 165 data breach incidents involving citizen data were observed from January 2018 till October 2023.

YUVAi initiative

- ❖ India, the Chair of the Global Partnership on Artificial Intelligence (GPAI), successfully hosted the GPAI Summit New Delhi.
- ❖ YUVAi-Youth for Unnati and Vikas with AI'- is a collaborative initiative of National e-Governance Division (NeGD) and Intel India.
- ❖ This programme, designed and unveiled in this event, is to equip the youth with essential AI skills.
- ❖ YUVAi is aimed to foster a deeper understanding of AI, to enable school students from class 8 to 12 across the nation with AI skills and empower them to become human-centric designers and users of AI.

New Delhi Declaration on GPAI

- ❖ The Global Partnership on Artificial Intelligence (GPAI) with 28 countries unanimously adopted the New Delhi declaration.
- ❖ This initiative is poised to direct the course of AI development, prioritising the harnessing of opportunities while mitigating potential risks.
- ❖ The declaration also agreed to support AI innovation in the agriculture sector as a new “thematic priority”.
- ❖ The declaration stands out as a contrast from the agreement signed at the United Kingdom AI Safety Summit at Bletchley Park, Buckinghamshire

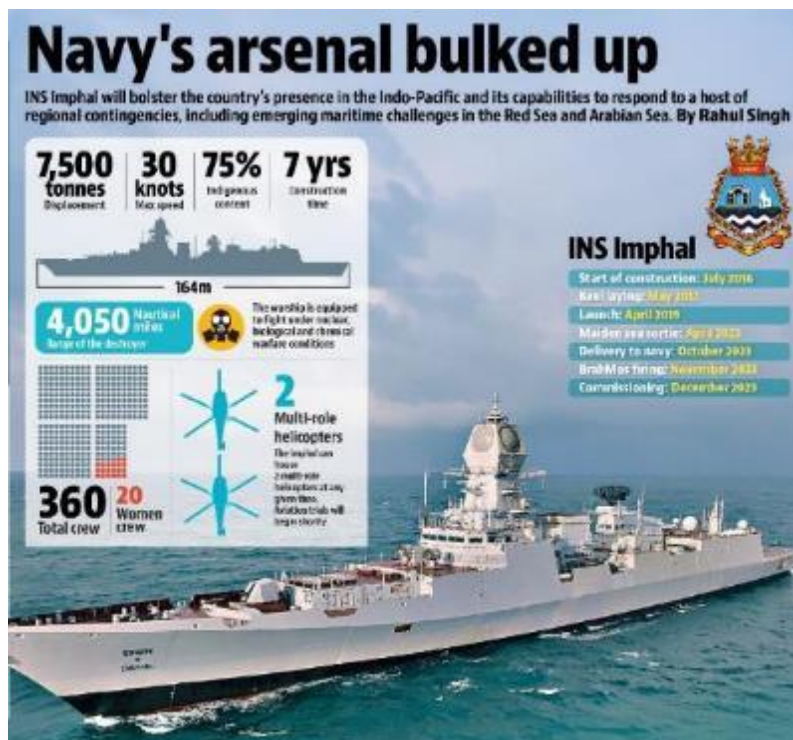
BRAHMA-2D: Indigenous River Model

- ❖ The IIT Guwahati has developed a mathematical model to gauge the flow of large braided rivers like the Brahmaputra.
- ❖ The indigenous river model was named BRAHMA-2D (Braided River Aid: Hydro-Morphological Analyzer).

- ❖ It may be helpful in the design of sustainable hydraulic structures like spurs, reverent and other river bank protection measures in order to check river bank erosion.



Commissioning of INS Imphal



- ❖ INS Imphal (Pennant D68) is the third of four warships of Project 15B that together form the Visakhapatnam class stealth-guided missile destroyers.
- ❖ This Visakhapatnam class has BrahMos surface-to-surface cruise missiles and vertically launched Barak-8 surface-to-air missiles for long-range engagement of shore and sea-based targets.
- ❖ Between 2014 and 2016, the Indian Navy commissioned three guided missile destroyers of Kolkata class under a project codenamed '15A'.

- ❖ The Kolkata class included INS Kolkata, INS Kochi and INS Chennai.
- ❖ These ships were a step ahead of their precursor Delhi class of ships, which included INS Delhi, INS Mysore and INS Mumbai.
- ❖ They built under Project 15 and commissioned between 1997 and 2001.

Tax devolution to States 2023

23	Tamil Nadu	2976.10
24	Telangana	1533.64
25	Tripura	516.56
26	Uttar Pradesh	13088.51
27	Uttarakhand	815.71
28	West Bengal	5488.88
	TOTAL	72961.21

- ❖ The Centre had released ₹72,961.21 crore as tax devolution to States.
- ❖ The largest share has gone to Uttar Pradesh at ₹13,088.51 crore, followed by Bihar at ₹7,338.44 crore.
- ❖ Madhya Pradesh got ₹5,727.44 crore and it was followed by West Bengal at ₹5,488.88 crore; Maharashtra at ₹4,608.96 crore; Rajasthan at ₹4,396.64 crore and Odisha at ₹3303.69 crore.
- ❖ The remaining States' share has been lower than ₹3,000 crore and ranged from ₹281.63 crore (Goa) — ₹2,976.10 crore (Tamil Nadu).

RAMP program

- ❖ Union MSME Ministry launches 3 sub-schemes under RAMP (Raising and Accelerating MSME Productivity) programme.
- ❖ The initiatives include
 - MSME Green Investment and Financing for Transformation Scheme (MSE GIFT Scheme),
 - MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme) and
 - MSE Scheme on Online Dispute Resolution for Delayed Payments.

- ❖ The key objectives of RAMP are to accelerate centre-state collaboration in MSME promotion and development, enhance the effectiveness of existing schemes of the MSME Ministry.



RAMP
(RAISING AND ACCELERATING MSME PERFORMANCE)

- RAMP supports various COVID Resilience and Recovery Interventions of Ministry of MSME
- Aimed at improving access to market and credit, strengthening institutions and governance at Centre and State
- RAMP seeks to scale up implementation capacity and MSME coverage in States
- Directly or indirectly benefit all **63 million** MSMEs
- **5.55 lakh** MSMEs specifically targetted for enhanced performance

2/2
CABINET DECISIONS-30 MARCH 2022

Election Commission's Guidelines

TYPES OF DISABILITIES INCREASED TO 21 IN ACT

<ul style="list-style-type: none"> ➤ The Rights of Persons with Disabilities Act, which overwrote the former Persons with Disabilities Act of 1995, was passed by Parliament in Dec 2016 ➤ The number of disabilities have been increased from seven to 21 ➤ It added acid attack victims, speech and language disability and specific-learning disability among the list of disabilities 	 <ul style="list-style-type: none"> ➤ The new categories of disabilities also include three blood disorders – Thalassemia, Hemophilia and Sickle Cell disease 	<ul style="list-style-type: none"> ➤ Dwarfism and muscular dystrophy have been indicated as a separate class of specified disability ➤ The Act also casts the responsibility up on the state governments to take measures to ensure that the disabled persons enjoy their rights equally with others ➤ Additional benefits such as reservation in higher education, government jobs and reservation in allocation of land have also been provided for such persons
--	---	---

- ❖ The Election Commission of India (ECI) has asked the political parties to avoid the usage of derogatory language in political discourse against Persons with Disabilities.
- ❖ In a bid to promote the principle of accessibility and inclusivity in politics, the Election Commission today issued guidelines.
- ❖ The commission has asked political parties to strictly avoid comments related to disabilities that perpetuate stereotypes and prejudices.
- ❖ Usage of derogatory language in public statements, speech, articles, and campaign outreach material is also barred as per the guidelines.
- ❖ Any usage of such language, terminology, context, mockery, derogatory references or insult to PwDs ... may attract provisions of Section 92 of the Rights of Persons with Disabilities Act, 2016.

Extended Version of Mission Karmayogi

- ❖ On the occasion of Good Governance Day, the Extended Version of Mission Karmayogi has been launched.
- ❖ Three new features launched on the iGOT Karmayogi platform are My iGOT, Blended Programs and Curated Programs.
- ❖ A new blended learning programme named VIKAS (Variable & Immersive Karmayogi Advanced Support) also launched.

India Skills Report 2024

- ❖ The India Skills Report-2024 has put Andhra Pradesh in the third place in terms of having the highly employable resource pool.
- ❖ Haryana and Maharashtra took the first and second positions respectively.
- ❖ The overall young employability in India has shown improvement, reaching 51.25%.
- ❖ States like Haryana, Maharashtra, Andhra Pradesh, Uttar Pradesh, Kerala, and Telangana demonstrate a high concentration of highly employable youth.
- ❖ Haryana has the highest employable youth concentration.
- ❖ Pune came first with 80.82% of candidates found highly employable, followed by Bengaluru, and then Trivandrum.
- ❖ Telangana has the highest concentration of employable talent in the age group of 18-21 with 85.45% found employable.
- ❖ It followed by Kerala 74.93% employable resources in this age group.
- ❖ Gujarat has the highest availability of employable resources in the age group of 26-29 with 78.24% in this age group found employable.



INTERNATIONAL

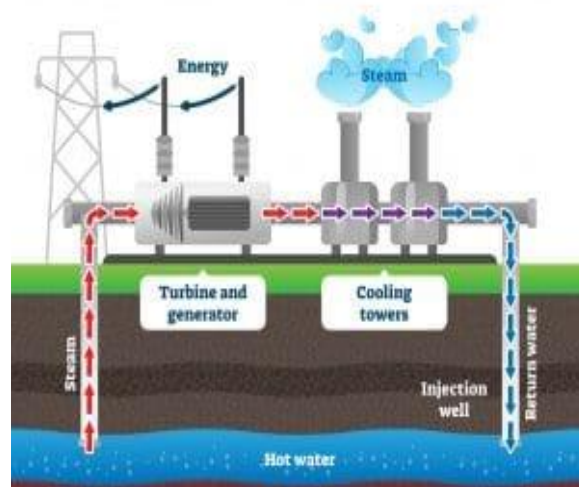
AI's secure by design

- ❖ The United States, Britain and some other countries unveiled the first detailed international agreement regarding AI Security.
- ❖ It deals points related to, how to keep artificial intelligence safe from rogue actors, pushing for companies to create AI systems that are "secure by design."
- ❖ The 18 countries agreed that companies designing and using AI need to develop and deploy it in a way that keeps customers and the wider public safe from misuse.
- ❖ The agreement is non-binding and carries mostly general recommendations such as monitoring AI systems for abuse, protecting data from tampering and vetting software suppliers.

Geothermal Energy Independent Power Producer (IPP)

- ❖ Zimbabwe announced to construct its first utility-scale geothermal energy Independent Power Producer (IPP) and support the reduction of greenhouse Gas (GHG) emissions in the country.

- ❖ In 2021, Zimbabwe’s total energy generation comprised 29% from non-renewable sources and 71% from renewables.
- ❖ Hydropower is constituting 69% of total energy generation with the largest share.
- ❖ The climate change-induced challenges have led to intensive load shedding and increased reliance on fossil fuels.
- ❖ Zimbabwe is contributing only 0.03% of global greenhouse gas emissions in 2021.
- ❖ It is highly sensitive to extreme climate events and ranks among the top 10 countries most affected by climate change.



New Coal Plant Construction in 2023 – China



- ❖ China leads in new coal plant construction, with over 95% of the global capacity initiated in 2023.
- ❖ For the Global Consideration, in the outside China, 110 GW of coal power capacity is under consideration in 32 countries, involving 131 coal projects.
- ❖ India, Bangladesh, and Indonesia lead with 83% of the total proposed capacity.

International Maritime Organization – India

- ❖ India has been re-elected to the International Maritime Organization (IMO) Council for the 2024-25 biennium with the highest tally.
- ❖ India's re-election places it among the ten states with the "largest interest in international seaborne trade," alongside influential nations such as Australia, Brazil, Canada, France, Germany, the Netherlands, Spain, Sweden and the United Arab Emirates (UAE).
- ❖ Under the Maritime India Vision (MIV) 2030, India aims to enhance its representation at IMO by appointing permanent representatives at IMO headquarters in London.

Paris Club

- ❖ Sri Lanka has recently reached an "agreement in principle" with India and the Paris Club group of creditors including Japan, on a debt treatment plan.
- ❖ The Paris Club is an informal group of creditor nations.
- ❖ It works to find sustainable solutions for debtor countries that are unable to repay their bilateral loans.
- ❖ It has originated from a 1956 meeting in which Argentina agreed to meet its public creditors in Paris.
- ❖ The Paris Club has 22 permanent members.
- ❖ India is not a member to this club.
- ❖ The Paris Club usually coincides with the IMF program period.

UN Peacekeeping Ministerial Meeting 2023

- ❖ It was scheduled to take place in Accra, Ghana.
- ❖ 85 countries and international organizations participated in this.
- ❖ It is a biennial meeting organized by the United Nations.
- ❖ The Minister of State of Defence Ajay Bhatt participated in this.

- ❖ Every peacekeeping mission is authorized by the UN Security Council.
- ❖ It was established in 1948.
- ❖ UN Member states contribute their manpower for Peacekeeping forces on a voluntary basis.
- ❖ The financial resources of UN Peacekeeping operations are the collective responsibility of UN Member States.
- ❖ In the last seven decades, India has contributed more than 2,75,000 troops in 53 different missions.
- ❖ In 2007, India became the first country to deploy an all-women contingent to a U.N. Peacekeeping mission.
- ❖ The Indian Army has established the Centre for United Nations Peacekeeping (CUNPK) in New Delhi.
- ❖ In 2021, India in collaboration with the UN launched UNITE AWARE platform.

International Cotton Advisory Committee

- ❖ The Ministry of Textiles is hosting the 81st Plenary Meeting of the International Cotton Advisory Committee (ICAC) in the Jio World Convention Centre, Mumbai.
- ❖ Theme for this year is “Cotton Value Chain: Local Innovations for Global prosperity”.
- ❖ The Plenary Meeting of ICAC is held every year in the member countries.
- ❖ It is an association of members of cotton producing, consuming and trading countries.
- ❖ Formed in 1939, its headquarters is Washington, United States
- ❖ India is one of members of the International Cotton Advisory Committee (ICAC)
- ❖ It has 28 members, most of the world’s cotton producing nations.
- ❖ But two of the ten largest producers (China and Turkmenistan) are not members.
- ❖ India has the largest area under cotton cultivation and is the second largest cotton producer in the World.
- ❖ Gujarat, Maharashtra and Telangana are the major cotton producing states.
- ❖ They produce about 65% of cotton production in the country.
- ❖ Kasturi Cotton Bharat is a premium cotton brand of India.

Mount Merapi eruption 2023

- ❖ Mount Merapi is located in West Sumatra, Indonesia.
- ❖ It claims the title of the most active volcano in Sumatra.

- ❖ Pacific Ring of Fire also known as the Circum-Pacific Belt, is a path along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.
- ❖ It traces boundaries between several tectonic plates—including the Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.



Codex Alimentarius Commission 2023



- ❖ India has been unanimously elected as a member representing the Asian region in the Executive Committee of Codex Alimentarius Commission (CAC).
- ❖ It was during its 46th meeting at Food and Agriculture organization (FAO) headquarters at Rome, Italy.
- ❖ India proposed the establishment of global standards for millets like Finger millet, Barnyard millet, Kodo millet, Proso millet, and little millet.
- ❖ Codex currently has standards for Sorghum and Pearl Millet.
- ❖ CAC is an international food safety and quality standard-setting body.
- ❖ It was established jointly by the FAO and the World Health Organization (WHO) in 1963.
- ❖ The Agreement on Application of Sanitary and Phytosanitary Measures (SPS) of the World Trade Organization (WTO) recognizes Codex standards.
- ❖ India became the member of Codex Alimentarius in 1964.

AIGIF

- ❖ The 4th edition of the annual ASEAN India Grassroots Innovation Forum (AIGIF) for 2023 took place in Langkawi, Malaysia recently.
- ❖ AIGIF is an annual program that focuses on strengthening the relationship between India and ASEAN Member States (AMS) in the fields of Science, Technology, and Innovation.

Article 99 of the UN Charter

ISRAEL- GAZA WAR


What is Article 99 of the UN Charter about?


UN Secretary-General Antonio Guterres made a rare move on Wednesday, invoking Article 99 to formally warn the Security Council of the global threat from Israel's war on Gaza.

ARTICLE 99	If in agreement
<p>🔊 The secretary-general may bring to the attention of the UNSC any matter which, in his opinion, may threaten the maintenance of international peace and security.</p>	<p>The UNSC will have additional powers to ensure that the ceasefire resolution is implemented, including</p> <ul style="list-style-type: none"> ■ the power to impose sanctions, and ■ deployment of an international force.

WHEN WAS IT LAST INVOKED?

- 

1960 - CONGO
Secretary-General Dag Hammarskjöld
The Congolese government requested the UNSC to provide UN military assistance to protect against Belgian forces.
- 

1979 - IRAN
Secretary-General Kurt Waldheim
The UNSC called for the release of 52 Americans held hostage by Iranian militia at the US embassy in Tehran and restoring diplomatic immunity.
- 

1989 - LEBANON
Secretary-General Javier Perez de Cuellar
It was used to call for a ceasefire in Lebanon's escalating civil war.

- ❖ Recently, UN Secretary-General Guterres addressed the UN Security Council, highlighting the severe risk of a collapse of the humanitarian system in Gaza.
- ❖ He urged the Council to help avert a humanitarian catastrophe and appealed for a humanitarian ceasefire.
- ❖ UN Secretary-General Antonio Guterres said he was invoking Article 99 for the first time in his career.

- ❖ Article 99 of the UN Charter grants the Secretary-General the discretionary power to bring to the attention of the Security Council any matter that may threaten the maintenance of international peace and security.

WRC 23 – Dubai, UAE

- ❖ United Arab Emirates' Mohammed Al Ramsi has been appointed Chairman of World Radiocommunication Conference 2023 (WRC 23).
- ❖ WRC is organised by International Telecommunication Union (ITU) every four years to revise the global use of radio-frequency spectrum, geostationary-satellite and non-geostationary-satellite orbits.

World's 100 Most Powerful Women of 2023



- ❖ Union Finance Minister Nirmala Sitharaman, HCL Corporation Chairperson Roshni Nadar Malhotra, Steel Authority of India Chairperson Soma Mondal and Biocon Executive Chairperson Kiran Mazumdar-Shaw are the four Indians among the 100 named in Forbes' annual list of 'The World's Most Powerful Women'.
- ❖ Nirmala Sitharaman, serving as India's first full-time female finance minister, has made it to the list for the fifth year in a row.
- ❖ The top position on the list is Ursula von der Leyen, President of the European Commission.
- ❖ Following her are European Central Bank President Christine Lagarde, US Vice President Kamala Harris, and Italian Prime Minister Giorgia Meloni.

WHO Global Clinical Trials Forum

- ❖ It is the first ever forum by WHO.
- ❖ It aims to discuss and develop a global vision for sustainable clinical research infrastructure.

- ❖ In India, the Central Drug Standard Control Organisation (CDSCO) regulates clinical trials under Drugs and Cosmetics Act, 1940.
- ❖ The Clinical Trials Registry – India (CTRI), a free online public record system, was established in 2007.
- ❖ It is maintained by ICMR under the Ministry of Health and Family Welfare.
- ❖ It is a national clinical trial registry in India.
- ❖ It is mandatory to register for every clinical trial at CTRI before commencing as per the Drugs Controller General (India) (DCGI).



‘One Province, One Policy’



- ❖ China's National Financial Regulatory Administration introduced a tailored "One Province, One Policy" strategy for financial risk management.
- ❖ Instead of adopting a one-size-fits-all strategy, provinces are urged to formulate their own policies to address specific challenges and risks.

- ❖ It is exacerbated by the lingering effects of restrictive Covid Zero policies and a persistent property crisis.

Italy and BRI



- ❖ Italy is the only major Western nation and the only G7 nation to sign to join China’s Belt and Road Initiative (BRI) in 2019.
- ❖ But in 2023, it has confirmed its withdrawal from the project.
- ❖ The Belt and Road Initiative (One Belt One Road) is a global infrastructure development strategy adopted by the Chinese government in 2013
- ❖ It has faced criticism, with the US labelling it “debt-trap diplomacy.”

Vice-chairperson of the UNESCO executive board

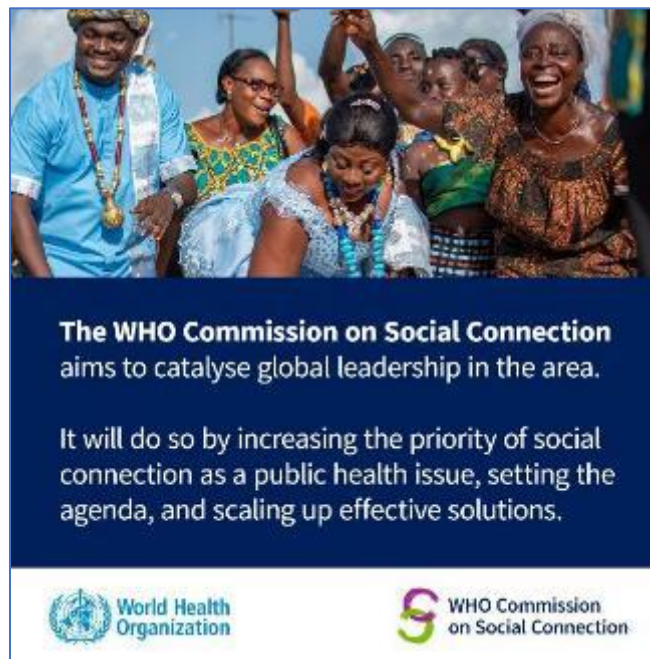
- ❖ Pakistan beats India at UNESCO vote for the Vice Chairperson post.
- ❖ The executive board is one of the three constitutional organs of UNESCO — a specialised agency of the United Nations (UN).
- ❖ The other two are the general conference and the secretariat.
- ❖ India was elected to the UNESCO executive board in 2021 for a four-year term till 2025.
- ❖ The bureau of the executive board consists of 12 members — the chairperson, six vice-chairpersons and the five chairpersons of the permanent commissions and committees.
- ❖ All members of UNESCO are grouped into six regional electoral groups, and each such group is represented by a vice-chairperson.

- ❖ This latest election won by Pakistan was for the vice-chairperson of Group IV, which includes Australia, Bangladesh, China, Cook Islands, India, Indonesia, Japan, the Philippines, Republic of Korea, Sri Lanka and Vietnam.
- ❖ The six groupings are: Group I (Western Europe and North American States), Group II (Eastern European States), Group III (Latin America and Caribbean States), Group IV (Asian and Pacific States), Group V (a) (African States) and Group V (b) (Arab States).

AI Alliance

- ❖ Meta and IBM have joined forces to establish the AI Alliance.
- ❖ This aims to promote an “open-science” approach to AI development.
- ❖ It is setting them apart from competitors such as Google, Microsoft and Open AI.
- ❖ It emphasizes the importance of open scientific exchange, open innovation and the use of open-source technologies in shaping the future of AI.
- ❖ The term “open-source” has its roots in the decades-old practice of building software with freely accessible code.
- ❖ OpenAI, despite its name, primarily develops closed AI systems.

WHO’s Commission on Social Connection (2024–2026)



- ❖ The World Health Organization (WHO) has launched a Commission on Social Connection.

- ❖ It is co-chaired by U.S. Surgeon General Dr. Vivek Murthy and African Union Youth Envoy Chido Mpemba.
- ❖ It is a 3-year initiative to address loneliness as a global health threat.
- ❖ It aims to analyse the role of social connection in health, well-being, economic progress, social development, and innovation.

Essequibo region

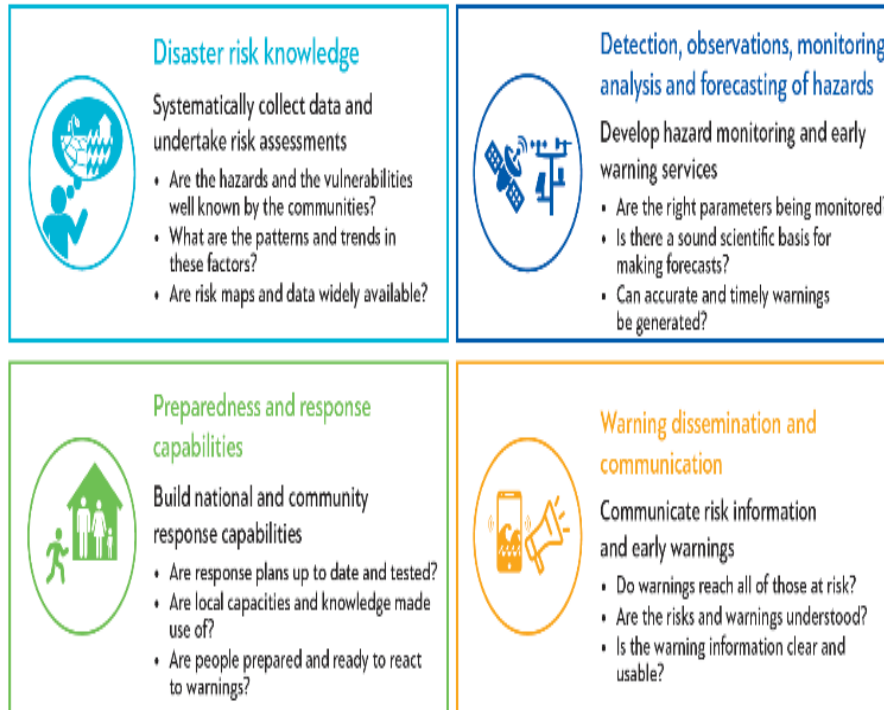


- ❖ Venezuelan plans to take over Essequibo, the oil-rich region controlled by neighbouring Guyana.
- ❖ More than 95% of Venezuelan voters approved a referendum claiming rights over Essequibo.
- ❖ Essequibo has been under the authority of Guyana - and before its British Guiana - for more than a century, but Venezuela has long sought to control it.
- ❖ Venezuela claims that the Essequibo River to the region's east forms a natural border.
- ❖ The region also has the world's biggest reserves of crude oil per capita.
- ❖ The estimated reserves are at least 10 billion barrels – more than Kuwait or the United Arab Emirates.

Early Warnings for All 2027

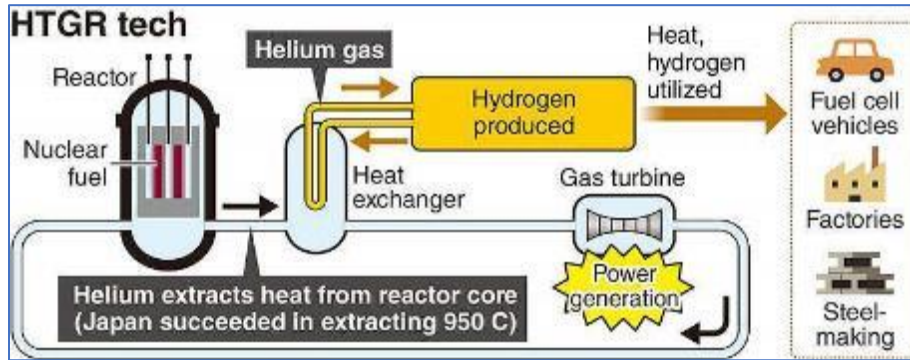
- ❖ This initiative aimed at providing life-saving early warning systems to protect everyone on Earth from hazardous weather, water, or climate events by the end of 2027.
- ❖ An Executive Action Plan for the EW4All initiative was launched at COP27 focused on mobilizing investments of \$3.1 billion over five years.

- ❖ As part of the plan, 30 countries have been prioritized for accelerated implementation of the EW4All initiative for 2023.
- ❖ The initiative, led by the World Meteorological Organization (WMO) and the United Nations Office for Disaster Risk Reduction (UNDRR).
- ❖ UNDP (along with FAO, OCHA, UNEP, UNESCO, IFRC, and WFP) is an implementing partner of the EW4All initiative through its existing projects and programmes on the ground.



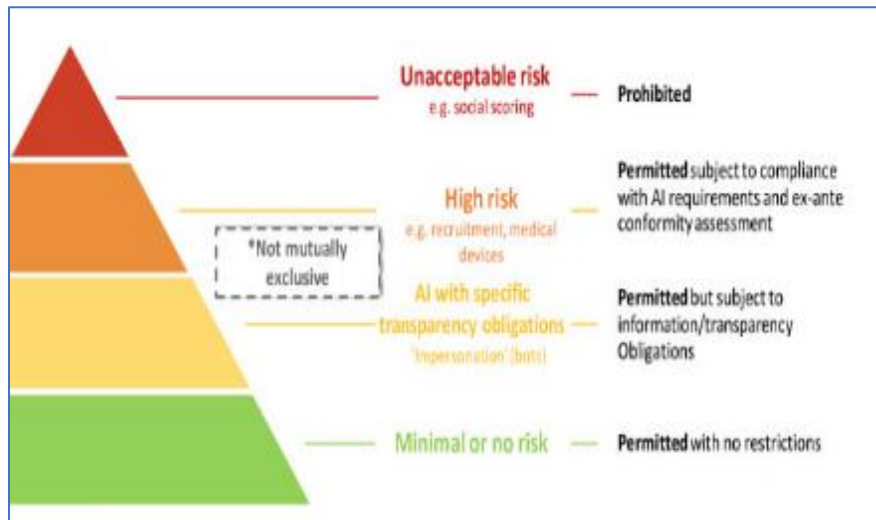
Shidaowan Nuclear Plant

- ❖ China's Shidaowan nuclear power plant, the world's first fourth-generation reactor, has begun commercial operations.
- ❖ This illustrates China's global leadership in high-temperature gas-cooled reactor (HTGR) nuclear energy technology.
- ❖ Instead of using water to cool the system, the high-temperature reactor will be cooled using helium gas.
- ❖ This will help to develop more inland nuclear plants, as they will not need to be located next to a water source.
- ❖ Up to 93.4 per cent of the material used in the Shidaowan HTGR was domestically sourced.
- ❖ China has a goal to produce 10% of electricity from nuclear by 2035 and 18% by 2060.



EU's AI Rules

- ❖ The EU becomes the very first continent to set clear rules for the use of AI.
- ❖ The European Parliament will now vote on the proposed AI Act early next year.
- ❖ This legislation is likely to come into force by 2025.
- ❖ It is trying to protect against its possible risks, like automating jobs, spreading misinformation online and endangering national security.



91st Interpol General Assembly

- ❖ The 91st General Assembly of the Interpol was held in Vienna.
- ❖ It also celebrated the centenary year of the International Criminal Police Organisation (Interpol), which was formed in 1923.
- ❖ Delegates from Central Bureau of Investigation (CBI) and National Investigation Agency (NIA) attended this event.
- ❖ India also supported the adoption of Interpol's 'Vision 2030'.

- ❖ India had joined the Interpol in 1949, and has been an active member of the organisation.
- ❖ It has hosted two General Assemblies.
- ❖ Last year, India hosted the 90th General Assembly which saw the participation of delegations from 168 countries.
- ❖ Interpol formed in 1923, is headquartered at Lyon, France.

Green Voyage 2050 Project

- ❖ India has been selected as pioneer lead country for International Maritime Organization (IMO) Green Voyage 2050 Project.
- ❖ It aims to assist developing countries in their efforts to reduce Green House Gases (GHG) emissions from ships.
- ❖ The countries participating in the Green Voyage 2050 Project are: Azerbaijan, Belize, China, Cook Islands, Ecuador, Georgia, India, Kenya, Malaysia, Solomon Islands, South Africa, Sri Lanka.
- ❖ It is a partnership project between the Government of Norway and IMO, launched in 2019.



Operation Storm Makers II

- ❖ The “Operation Storm Makers II”, the Interpol exercise resulted in the arrest of 281 persons in different countries.
- ❖ They are charged such as human trafficking, passport forgery, corruption, telecommunications fraud, and sexual exploitation.
- ❖ While 149 human trafficking victims were rescued, over 360 investigations were opened.

- ❖ Law enforcement agencies in 27 countries across Asia and other regions were mobilised for the operation.
- ❖ The Telangana police registered one of the first cases in India of human trafficking committed for the purpose of forcing victims to commit cyber fraud.

World's Leading Opium Source in 2023

- ❖ Myanmar has become the world's top producer of opium, overtaking Afghanistan in 2023.
- ❖ The 95 percent decline in opium cultivation in Afghanistan after a drug ban by the Taliban in 2022 has seen global supply shift to Myanmar.
- ❖ Opium poppy farming is now yielding about 75% higher profits.
- ❖ The average price of opium poppies has risen to approximately \$355 per kilogram.
- ❖ The cultivation area has expanded by 18% year-on-year, reaching 47,000 hectares.
- ❖ This marking is the highest potential yield since 2001.



UN Peacekeeping Mission in Mali

- ❖ The United Nations mission in Mali has officially ended a 10-year deployment in the country.
- ❖ The mission is known as the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA).
- ❖ The mission had maintained about 15,000 soldiers and police in Mali for the past decade.
- ❖ Landlocked Mali has struggled to contain an Islamic extremist insurgency since 2012.

Framework to Regulate AI

- ❖ The Economic Advisory Council to the Prime Minister (EAC-PM) has released a paper “A Complex Adaptive System Framework to Regulate AI”.
- ❖ Also, the European Union (EU) has reached a historic provisional deal on the world’s first comprehensive laws to regulate artificial intelligence (AI).
- ❖ The deal includes strong restrictions on facial recognition technology, and on using AI to manipulate human behaviour, alongside provisions for tough penalties for companies breaking the rules.



Approval of two gene therapies - USA



- ❖ The U.S. FDA has approved two gene therapies - Casgevy and Lyfgenia - to treat sickle cell disease in patients over 12.

- ❖ Its decision on approving Casgevy gene therapy for treating beta thalassemia is expected by March 2024.
- ❖ These decisions mark the beginning of gene therapy using the CRISPR-Cas9 tool to treat diseases.

Russia's new nuclear submarines

- ❖ Russian President Vladimir Putin has inaugurated two new nuclear-powered submarines.
- ❖ The two submarines have been named Krasnoyarsk and Emperor Alexander III.
- ❖ The emperor Alexander III is part of the new Borei (Arctic Wind) class of nuclear submarines, the first new generation Moscow has launched since the Cold War.

Threat to Wisent Conservation



- ❖ The ongoing war in Ukraine could act as threat to Conservation efforts of wisent.
- ❖ The wisent, also known as the European wood bison, was almost wiped out by 1927 from Europe wild.
- ❖ Over 50 per cent of all free-living bison are in Ukraine.
- ❖ Approximately 7,300 free-ranging European bison exist today.

Menopause Drug Veoza – UK

- ❖ The drug named Veoza or fezolinetant has been approved by UK's Medicines and Healthcare Products Regulatory Agency.
- ❖ A drug that can potentially offer relief to hundreds of thousands of women battling hot flushes during menopause.
- ❖ Currently, hormone replacement therapy (HRT) is the most effective treatment available for hot flushes.

- ❖ Veoza, which is a non-hormonal menopause drug, directly targets the brain to prevent hot flushes by blocking a protein called neurokinin-3.

Lithium Reservoir in Salton Sea

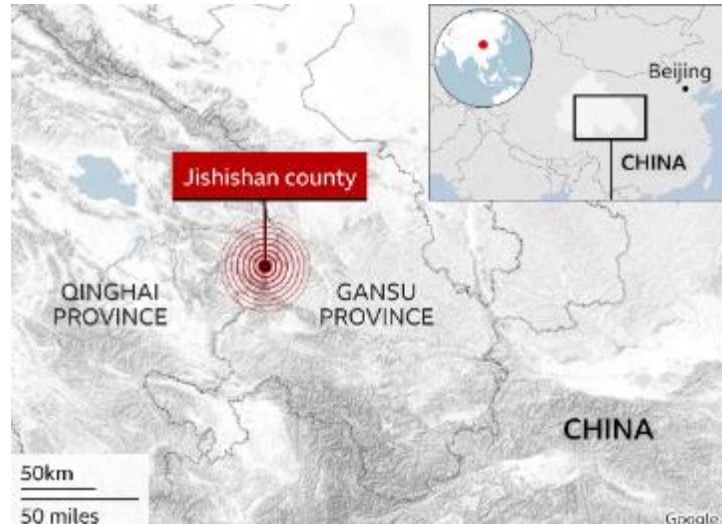


- ❖ United States Department of Energy, has found promising prospects for lithium extraction from California's Salton.
- ❖ The analysis found an estimated 18 million metric tonnes of lithium reserves in the depths of the Salton Sea.
- ❖ Lithium is an element that is essential for electric vehicle (EV) batteries and renewable energy storage systems.
- ❖ The substantial find could potentially yield an equivalent of 382 million EV batteries.

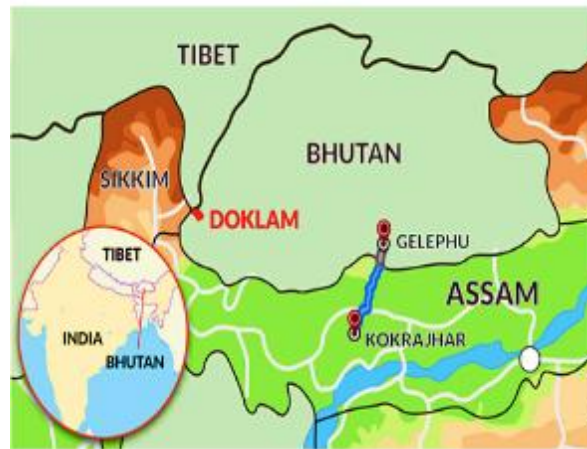
Earthquake in China

- ❖ A deadly earthquake in China has killed at least 126 people and injured many in the north-western part of the country.
- ❖ The earthquake measured 6.2 on the Richter scale, while the US Geological Survey recorded a magnitude of 5.9 and depth of 10 km.
- ❖ The quake is the deadliest to have hit China in nearly a decade, when more than 600 people died in southwestern Yunnan province in 2014.
- ❖ Sichuan province witnessed a devastating magnitude 7.9 earthquake in 2008 that killed some 90,000 people.
- ❖ In 1920, around 2,30,000 people reportedly died after a 7.8-magnitude quake struck Gansu province.

- ❖ Later in 1927, over 41,000 people died in an earthquake of 7.6 magnitude.
- ❖ China sits in a region where the Eurasian, Indian and Pacific plates meet and is therefore prone to earthquakes.

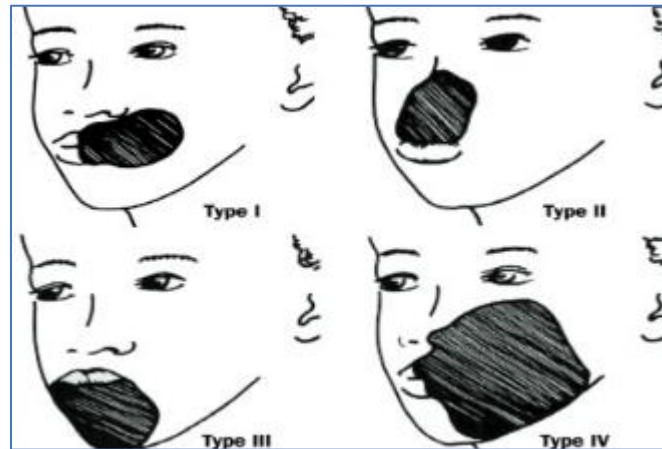


Gelephu Smart city Project



- ❖ Bhutan plans to build a massive “international city” in an area of over 1,000 sq. km. on its border with Assam.
- ❖ This project will be an “economic corridor connecting South Asia with Southeast Asia via India’s northeastern States”.
- ❖ The Government of India agreed to build the first India-Bhutan railway line to Gelephu.
- ❖ It would also connect with roadways and border trading and crossing points into Assam and West Bengal.
- ❖ Over time, it will provide Bhutan access to Myanmar, Thailand, Cambodia, and Singapore.

Noma Disease



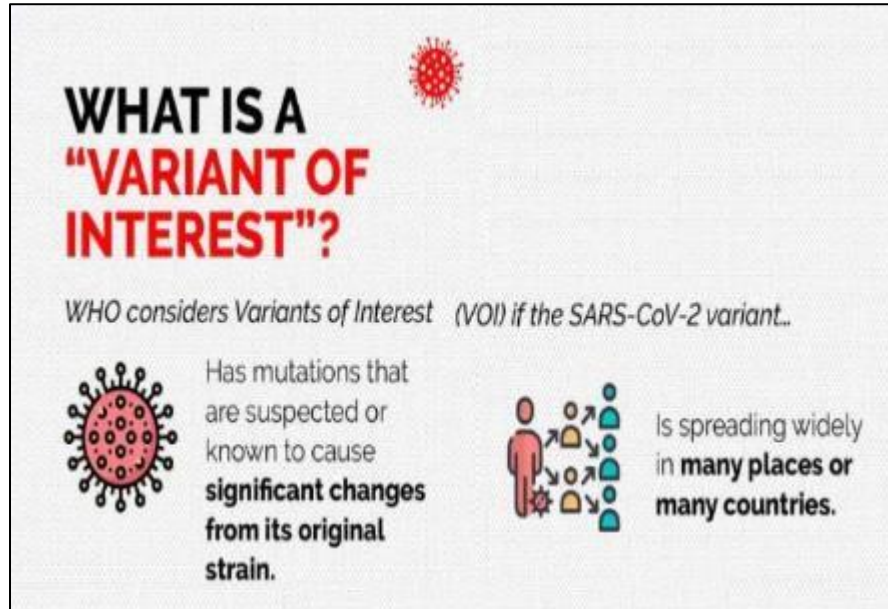
- ❖ The World Health Organization added Noma, to its official list of neglected tropical diseases (NTD).
- ❖ Noma is also known as cancrum oris or gangrenous stomatitis.
- ❖ It is a severe gangrenous disease of the mouth and face with a mortality rate of approximately 90 per cent.
- ❖ It is also associated with extreme poverty, malnutrition and poor access to sanitation and oral hygiene.
- ❖ Noma mainly affects children aged 2-6 years old and is found most commonly among those living in poor communities.
- ❖ WHO website estimates 140,000 cases per year and a prevalence of 770,000 cases.

International Year of Camelids



- ❖ The United Nations has designated 2024 as the International Year Of Camelids (IYC 2024).
- ❖ The next year will highlight camelids' crucial role towards different communities.
- ❖ It will also make people aware of how camelids are key to the livelihoods of many households in hostile environments across more than 90 nations.

JN.1 Variant of COVID-19 Virus



- ❖ A The JN.1 variant new COVID-19 variant has been classified as a "variant of interest" by the World Health Organisation
- ❖ The new variant did not pose much threat to public health.
- ❖ Initially it identified in Luxembourg.
- ❖ It is a descendant of the Pirola variant (BA.2.86), which has its origins in the Omicron sub-variant.

Century's Largest Flood - North Queensland

- ❖ The Tropical Cyclone Jasper, has caused the largest flood in more than a century in Australia's Far North Queensland.
- ❖ Two rain gauges recorded over 660 millimetres (26 inches) of rain in just 12 hours.
- ❖ It is breaking the previous all-time state record of 617 mm set in 1972.
- ❖ The Barron River at Myola experienced its highest flood levels in more than 100 years.

- ❖ The Daintree River exceeded major record flooding levels.
- ❖ It hit 15 metres — above the 2019 record of 12.6 metres.



Egypt's new President

- ❖ The president of Egypt, Abdel Fattah al-Sisi, won for a third term.
- ❖ He was elected to the Presidency in 2014, and re-elected in 2018, both times with 97% of the vote.
- ❖ The constitution was amended in 2019.
- ❖ It is extending the presidential term to six years from four, and allowing Mr. Sisi to stand for a third term.



Operation Prosperity Guardian

- ❖ The United States has launched Operation Prosperity Guardian to maintain security in the Red Sea.
- ❖ The United Kingdom, Bahrain, Canada, France, Italy, Netherlands, Norway, Seychelles and Spain are Joined in this multi-national security initiative.

- ❖ The Red Sea is a critical waterway that has been essential to freedom of navigation and a major commercial corridor that facilitates international trade.
- ❖ Recently, Houthi militants from Yemen have attacked or seized commercial ships 12 times.
- ❖ Earlier in November, Houthi militants also hijacked an India-bound ship named Galaxy Leader.



EU's New Pact on Migration and Asylum



- ❖ The European Union countries reached an agreement on a new set of rules to manage asylum requests what are being called the 'irregular' migrants.
- ❖ The European Union countries agreed for an overhaul of migrant and asylum-granting process in the bloc.

- ❖ The new system will give countries that are not at EU border two options.
 - One, they can take in their share of 30,000 asylum applicants.
 - Or, they can deposit at least 20,000 euros (USD 21,870) per asylum seeker into an EU fund.

Angola and OPEC



- ❖ Angola announced its leaving OPEC following 16 years of membership amid a dispute over oil production quotas.
- ❖ It had rejected a reduced output limit imposed by the leaders of the cartel to reflect the country's dwindling capacity.
- ❖ Angola's move will shrink membership of the Organization of Petroleum Exporting Countries to 12 nations.

India - lithium blocks in Argentina

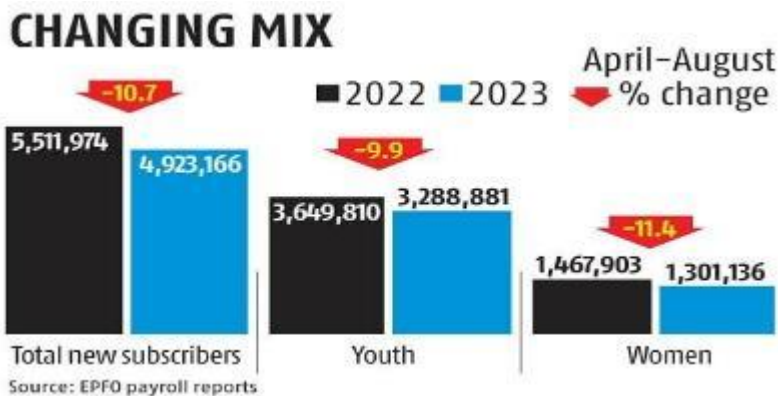
- ❖ India is in the final stages of negotiations to secure a deal for the exploration and development of five lithium blocks in Argentina.
- ❖ After Australia, this is India's second attempt to sign a foreign partnership for sourcing critical minerals.
- ❖ In 2022, India signed a MoU with Australia's Critical Minerals Facilitation Office (CMFO) to explore five blocks — two dedicated to lithium and three to cobalt.
- ❖ Argentina is home to 21 per cent of the global lithium reserves, which totals 98 million tonnes.
- ❖ This places Argentina second in the world, with Bolivia holding the top spot.



ECONOMY

Fresh formal jobs

- ❖ The Employees' Provident Fund Organisation (EPFO) payroll data showed that cumulatively 4.92 million new subscribers joined the social security organisation between April-August this year.
- ❖ This was 5.51 million in the same period in the previous year.
- ❖ It is reflecting a 10.7 per cent decline in the number of new payrolls created.



Venezuelan Crude Oil Imports



- ❖ Indian refiners, including Reliance Industries, have reinitiated the import of Venezuelan crude oil through intermediaries.
- ❖ The move comes in the wake of the temporary lifting of U.S. sanctions on Venezuela.
- ❖ Reliance Industries plans direct talks with PDVSA (Venezuela's state-owned oil firm) executives for potential direct sales.

Terms of Reference for 16th Finance Commission (2026-2031)

Fresh formulation

The 16th Finance Commission will have time until Oct. 31 2025, to recommend the tax sharing math between Centre and States

- Panel will also prescribe measures to augment Consolidated Fund of a State to supplement resources of panchayats, local bodies
- An Advance Cell was set up in the Finance Ministry last November to oversee preliminary work
- Panel may review existing arrangements on financing Disaster Management initiatives

- ❖ Recently, the Union Cabinet has given the nod to the terms of reference (ToR) for the Sixteenth Finance Commission.
- ❖ This commission holds the critical responsibility of recommending the formula for revenue distribution between the Centre and the States for the upcoming five-year period starting from April 1, 2026

- ❖ The recommendations of the Fifteenth Finance Commission are valid up to the financial year 2025-26.
- ❖ The government has set a deadline of October 31, 2025, for the panel to submit its recommendations.
- ❖ The key recommendation will be the distribution of net proceeds of taxes between the Centre and States and allocation among States of the respective share of such proceeds.
- ❖ The panel will also prescribe measures needed to augment the Consolidated Fund of a State to supplement resources of the panchayats and local bodies on the basis of recommendations made by the respective State Finance Commissions.
- ❖ The panel will recommend principles that should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and the sums to be paid to the States by way of grants-in-aid of their revenues.
- ❖ Also, it may review the existing arrangements on financing Disaster Management initiatives and make appropriate recommendations.

Fewer fresh formal jobs in 2023



- ❖ It was the recent data from the Employees' Provident Fund Organisation (EPFO).
- ❖ It reveals a 10.1% decline in new subscribers during the first half of the fiscal year 2023-24, indicating a slowdown in formal job creation.
- ❖ One concerning trend is the 9.54% reduction in subscribers aged 18-28.
- ❖ This group is a demographic typically associated with first-time entrants into the job market.
- ❖ The data also reveals an 11.1% decrease in the number of women subscribers.

'Build for Bharat' Initiative

- ❖ The Open Network for Digital Commerce (ONDC), in collaboration with Google Cloud India, Antler in India, Paytm, Protean, and Startup India launched this.
- ❖ It aims to address challenges in digital commerce, fostering innovation and practical solutions across various sectors.
- ❖ It is expected to draw over 200,000 participants, including startups, enterprises, and educational institutions.
- ❖ The Open Network for Digital Commerce (ONDC) was established on December 31, 2021, under the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.

National Circular Economy Roadmap to Reduce Plastic Waste



- ❖ Union Minister Dr. Jitendra Singh unveiled this report.
- ❖ It is a collaborative effort between leading research institutions in India and Australia.
- ❖ India and Australia are active participants in the negotiations for formulation of a Global Plastics Treaty to be finalized next year.
- ❖ It aims to establish research and industry partnerships to develop a roadmap for India's transition to a circular economy in the plastics sector.
- ❖ India has taken the lead in its quest for a circular economy towards achieving the Net Zero target by 2070.

Investor Risk Reduction Access (IRRA) platform

- ❖ It was launched by the Securities and Exchange Board of India (SEBI).
- ❖ It has been jointly developed by all the stock exchanges – BSE (Bombay Stock Exchange), NSE (National Stock Exchange), NCDEX (National Commodity and Derivatives Exchange), MCX (Multi Commodity Exchange) and Metropolitan Stock Exchange of India (MSE)
- ❖ It aims to provide a ‘safety net’ for investors in case of technical glitches faced by a trading member or a stock broker.
- ❖ Its purpose is to provide investors with an opportunity to square off/close their open positions and cancel pending orders using this platform in case of technical glitches or unforeseen outages.

UPI Payment Limit

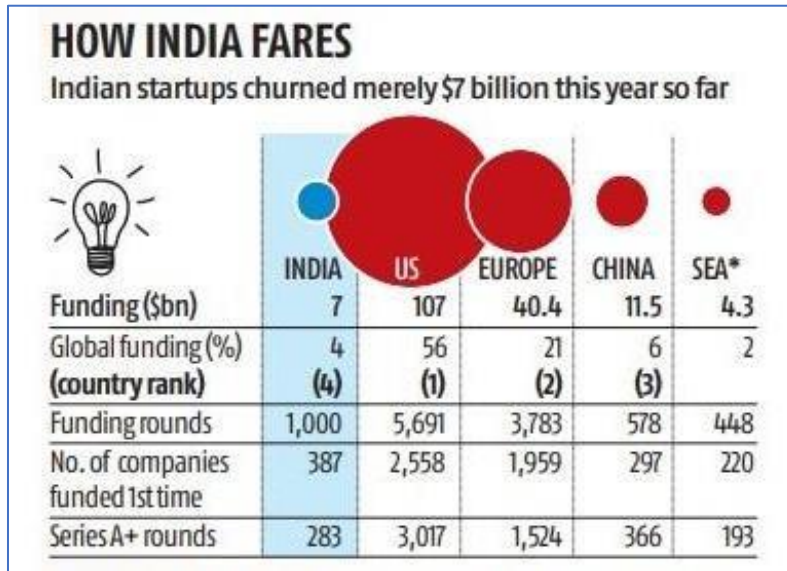
- ❖ The Reserve Bank of India (RBI) increased the transaction limit for UPI payments to hospitals and educational institutions to Rs 5 lakh.
- ❖ Earlier the limit was set at Rs 1 lakh per transaction.
- ❖ The transaction limit for UPI payments for capital markets collections (credit card payments, loan re-payments, EMI), insurance, etc. was limited to Rs 2 lakh.
- ❖ In December 2021, the transaction limit for UPI payments for Retail Direct Scheme and IPO subscriptions was increased to Rs 5 lakh.



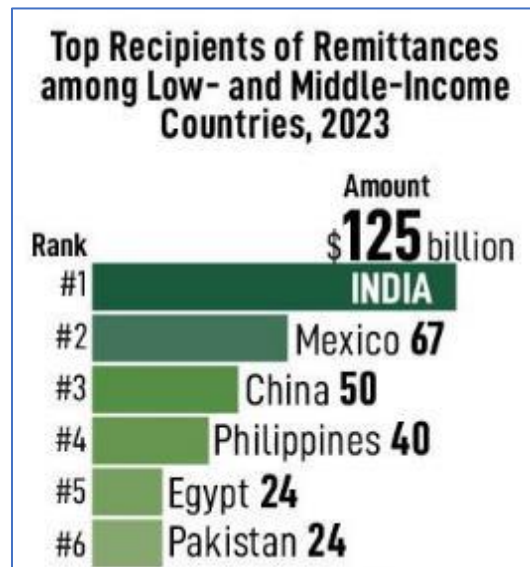
Startup funding

- ❖ India slipped to fourth position in the global ranking among the highest-funded geographies in 2023.
- ❖ It recorded lowest funding in five years.
- ❖ India is in third spot globally in 2021 as well as in 2022.
- ❖ By receiving only \$7 billion in total funding, now it behind the US, the UK and China.

- ❖ For 2023, the funding declined across all stages, with late-stage funding dropping over 73%, followed by early-stage funding (70%) and seed-stage funding (60%).



Global Remittances 2023




- ❖ The World Bank's latest Migration and Development Brief reveals a continuing growth in remittance flows to low- and middle-income countries (LMICs) in 2023.
- ❖ According to the World Bank, the report highlights India's significant position as the top remittance recipient.
- ❖ The Indian economy received USD 125 billion in remittances for the year.
- ❖ The top five remittance recipient countries include Mexico (USD 67 billion), China (USD 50 billion), the Philippines (USD 40 billion), and Egypt (USD 24 billion).

- ❖ Remittances to LMICs grew by an estimated 3.8 per cent in 2023, reaching a total of USD669 billion.
- ❖ South Asia witnessed a 7.2% increase in remittances in 2023.
- ❖ The remittance costs remain persistently high, averaging 6.2% to send USD 200 as of the second quarter of 2023.
- ❖ Banks continue to be the costliest channel for sending remittances, with an average cost of 12.1%.

Net Borrowing limits for states 2023

NET BORROWING CEILINGS (NBC) FOR THE YEAR 2023-24

- Normal Net Borrowing Ceiling for States fixed at 3 percent of Gross State Domestic Product (GSDP), i.e. Rs. 8,59,988 crore, for FY 2023-24 as recommended by Fifteenth Finance Commission [XV-FC].
- Approval issued for raising Rs. 6,99,016 crore for Open Market Borrowing (OMB) & of Rs. 69,370.81 crore for availing Negotiated Loan during FY2023-24.
- Further, States allowed extra borrowing ceiling equivalent to employer and employee share of contribution of its employees with actual NSDL/trustee bank as per the guidelines of National Pension Scheme (NPS), over and above the normal net borrowing ceiling of 3% of GSDP, for FY2023-24.
- Extra borrowing ceiling of Rs. 60,876.80 crore allowed to 22 States in 2023-24 (as on 27.10.2023) for NPS contribution by complying States.




- ❖ States may be able to tap about ₹2.04 lakh crore as additional borrowings over and above their net borrowing limits for the year.
- ❖ The Centre had allowed 22 States to raise additional borrowings of almost ₹61,000 crore this year.
- ❖ This is on top of their net borrowing ceilings of 3% of Gross State Domestic Product (GSDP).
- ❖ The extra borrowing ceiling was granted to States who met their pension liabilities by making required contributions to the National Pension System.
- ❖ Moreover, States are eligible to raise a little more than ₹1.43 lakh crore this year, based on the recommendations of the Ministry of Power.
- ❖ While the normal net borrowing ceiling for States is fixed at ₹8,59,988 crore for this year, in line with the recommendations of the 15th FC.

Decline in Agriculture's GDP Share in 2023

INVESTMENTS DRYING UP

Sector	FY18	FY19	FY20	FY21	FY22
Agriculture	26.14	25.88	27.83	30.98	30.23
Industry	29.23	26.26	24.54	23.42	24.67
Services	44.63	47.86	47.63	45.60	45.10



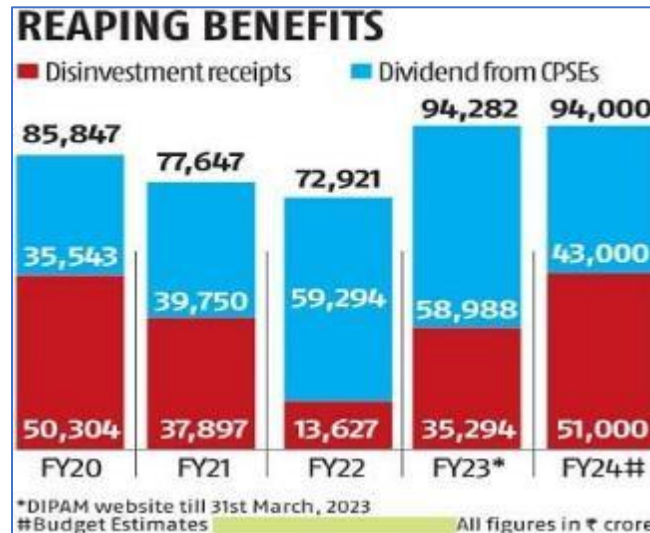
*FY-Financial Year,
Figs in %,
Source: State
Economic Survey

- ❖ The share of agriculture in India's GDP declined to 15% last fiscal year from 35% in 1990-91 due to rapid growth in the industrial and service sector.
- ❖ The share of agriculture in total Gross Value Added (GVA) of the economy has declined from 35% in 1990-91 to 15% in 2022-23.
- ❖ The decline is brought out not by the decline in agricultural GVA but a rapid expansion in industrial and service sector GVA.
- ❖ The agriculture and allied sectors have registered an average annual growth of 4% during the last five years.
- ❖ The share of agriculture in the world's GDP has also declined over the decades and stands at about 4% in recent years.

Disinvestment - FY24 Target

- ❖ The disinvestment target for current fiscal year is again likely to be missed.
- ❖ In the current fiscal, the budgeted amount is ₹51,000 crore.
- ❖ But, about 20% or ₹10,049 crore only has been collected through minority stake sales via IPO (Initial Public Offering) and OFS (Offer for Sale).
- ❖ The privatisation of all the CPSEs in the list and IDBI Bank are likely to move into the next financial year.
- ❖ In total, there are around 11 transactions which are being processed by DIPAM (Department of Investment and Public Asset Management) currently.

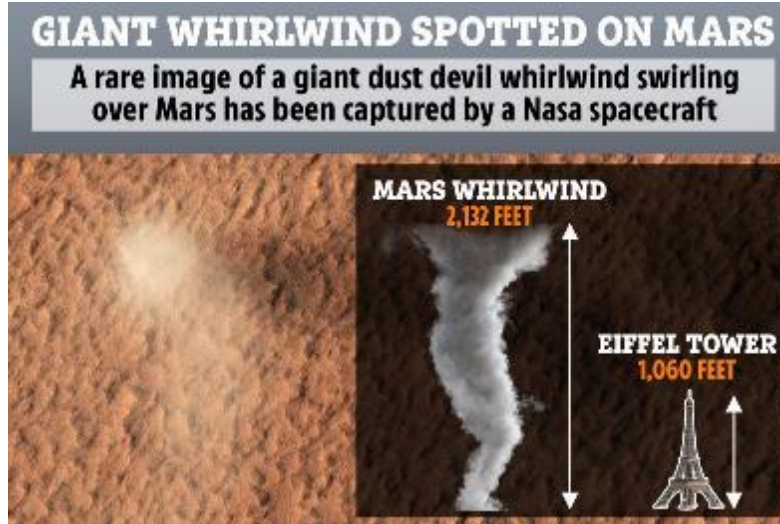
- ❖ Out of the around ₹4.20 lakh crore raised in the last 10 years from disinvestments, ₹3.15 lakh crore was realised from minority stake sales and Rs. 69,412 crore came from strategic transactions in 10 CPSEs.



SCIENCE AND TECHNOLOGY

Dust Devil on Mars

- ❖ NASA's 'six-wheeled geologist,' the Perseverance rover has captured a Martian dust devil on camera.
- ❖ A dust devil is a dust tornado, similar to the tornadoes we see on Earth.
- ❖ Generally, Martian tornadoes are smaller than the one we see on our planet.
- ❖ But as per calculations based on the tornado's shadow, was about two kilometres (1.2 miles) in height.
- ❖ This is much taller than the average tornado the US experiences every year, and about five times the height of the US Empire State Building.
- ❖ The rover spotted the dust devil on a location nicknamed "Thorofare Ridge."
- ❖ It was about four kilometres or 2.5 miles away from the Perseverance Rover.
- ❖ It was moving at a speed of about 19 kilometres per hour or 12mph.
- ❖ As per estimates, its width was about 200 feet (or 60 metres).



Mabella' vaccine

- ❖ Vaccine maker Indian Immunologicals (IIL) has launched measles and rubella vaccine Mabella for children.
- ❖ A live-attenuated MR vaccine developed in an exclusive partnership with Polyvac Institute of Vietnam.
- ❖ The launch addresses the urgent need for control of deadly measles and rubella that claim about one lakh lives of children globally.

X-ray Polarimeter Satellite

XPoSat Mission Objectives

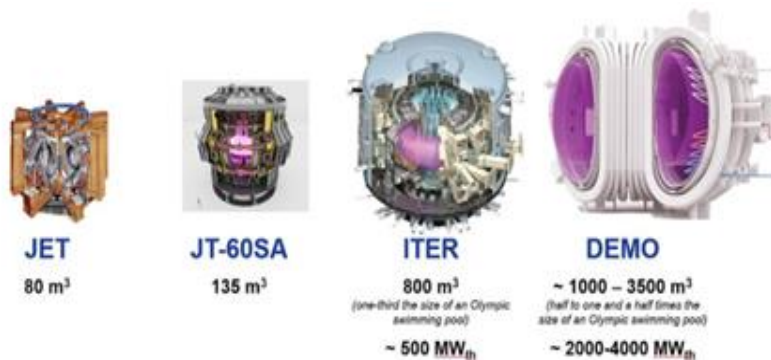
- To measure polarization (degree and direction) of X-ray photons from ~50 potential celestial sources of interest in the energy band of 5-30 keV.
- Mission Life – 5 years, Platform – Modified IMS-2 Bus
- Payload – Polarimeter Instrument in X-rays (POLIX) from Raman Research Institute
- Orbit – Circular LEO (500-700 km), Inclination $\leq 30^\circ$

Deployed View of XPoSat

- ❖ Indian Space Research Organization has announced a plan to launch its first X-ray Polarimeter Satellite (XPoSat) to investigate the polarisation of intense X-ray sources.
- ❖ The mission objectives include the measurement of X-ray polarisation in the energy band of 8-30 keV emanating from X-ray sources and long term spectral and temporal studies of cosmic X-ray sources in the energy band of 0,8-15 keV.
- ❖ This mission life is expected to be approximately five years.

JT60SA - Japan

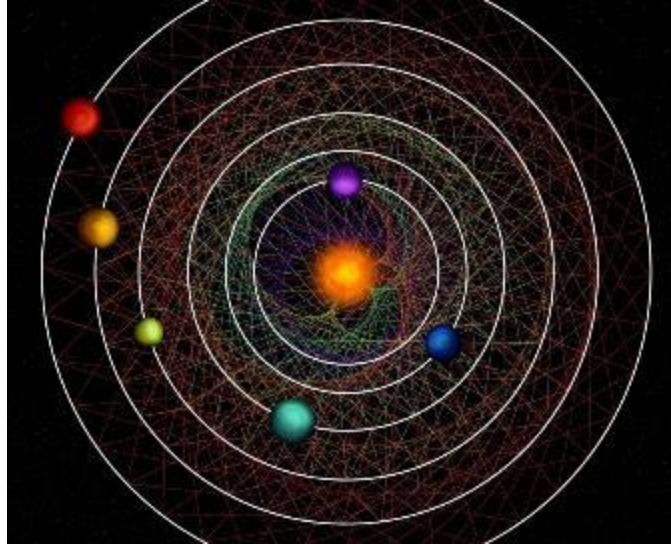
- ❖ It is the world's largest and most advanced experimental nuclear fusion reactor.
- ❖ It has officially commenced operations in Japan's Ibaraki Prefecture.
- ❖ It was developed as a collaborative effort between the European Union and Japan.
- ❖ It features a doughnut-shaped "tokamak" vessel designed to contain swirling plasma heated to an astounding 200 million degrees Celsius.
- ❖ This state-of-the-art facility serves as a precursor to the International Thermonuclear Experimental Reactor (ITER) in France.
- ❖ Nuclear fusion is a clean and sustainable energy source.
- ❖ Nuclear fusion is a revolutionary alternative to the current nuclear power plant technology based on fission.
- ❖ It involves the process of fusing two atomic nuclei to create a single, heavier element.
- ❖ Unlike fission, which entails splitting atomic nuclei, fusion has the potential to provide abundant energy with minimal environmental impact.



HD110067

- ❖ It is a star with 6 known sub-Neptune exoplanets.
- ❖ The star is located in the constellation Coma Berenices, which is near Virgo in the northern sky.

- ❖ It is about 100 light-years away from Earth.
- ❖ NASA's Transiting Exoplanet Survey Satellite (TESS) detected the star's brightness dipping in 2020.
- ❖ This indicated that planets were passing in front of the star.



INS Sandhayak

- ❖ Garden Reach Shipbuilders and Engineers (GRSE) of Kolkata delivered INS Sandhayak to the Indian Navy on the occasion of Navy Day (December 4).
- ❖ INS Sandhayak is the largest survey vessel ever built in India.
- ❖ It is the first in the series of four Survey Vessels (Large), or SVLs, being built by GRSE.

ASW Shallow Water Craft (CSL) project



- ❖ 3 anti-submarine warfare ships for Indian Navy were launched at Cochin shipyard.
- ❖ The ships will be named INS Mahe, INS Malvan and INS Mangrol.
- ❖ The ships are part of the ASW Shallow Water Craft (CSL) project.
- ❖ It is being built by Cochin Shipyard Limited, Kochi.
- ❖ These are envisaged to undertake anti-submarine operations in coastal waters as well as Low Intensity Maritime Operations (LIMO) and Mine Laying Operations.

Nuclear Gravity Bombs

- ❖ The United States' plans to build new nuclear gravity bomb will be designated as B61-13.
- ❖ These bombs do not consist of a guidance system and, hence, follow a ballistic trajectory.
- ❖ The new bomb is estimated to be 360 kilotons, which is roughly 24 times powerful than the blast that destroyed Hiroshima.
- ❖ Gravity bombs work is being pulled to the ground by the force of gravity instead of flying to the target on a powered missile.
- ❖ In this case, a bomber or an aircraft fly over the target and drops the bomb.



AI Model Gemini

- ❖ Google has officially launched its latest AI system, named Gemini.
- ❖ Gemini AI introduces three distinct modes: Ultra, Pro, and Nano.

- ❖ It's now integrated into Bard, the AI chatbot, and available on Pixel phones as well.
- ❖ Google aims to compete OpenAI's ChatGPT.

Aditya Solar wind Particle Experiment (ASPEX)

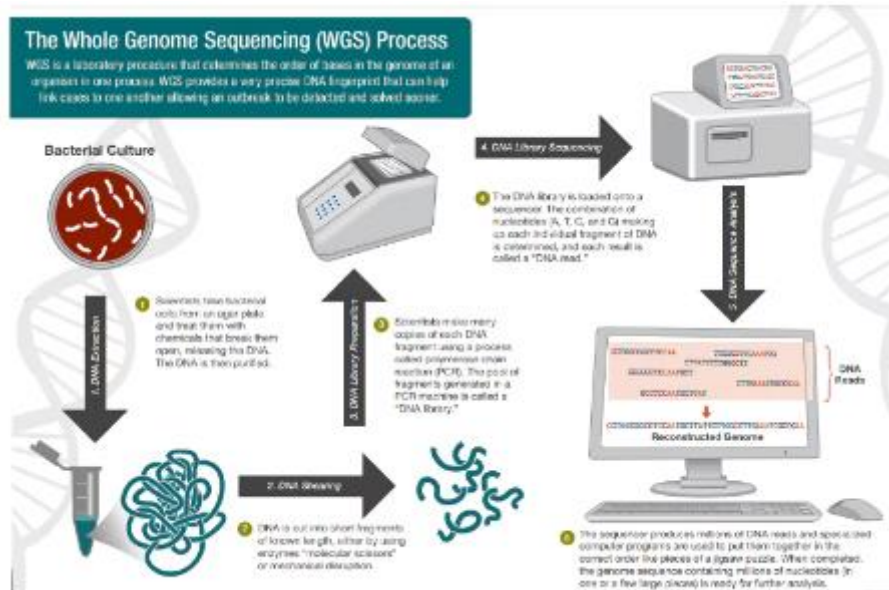


- ❖ It is the payload onboard India's Aditya-L1 satellite, launched to explore the sun.
- ❖ It has commenced its operations.
- ❖ It is designed to study solar wind particles.
- ❖ It comprises tools such as the 'Solar Wind Ion Spectrometer' (SWIS) and the 'Suprathermal and Energetic Particle Spectrometer' (STEPS).
- ❖ SWIS measures charged particles (ions) from the Sun, offering a broad view, while STEPS focuses on studying high-energy particles emitted by the Sun.
- ❖ ASPEX plays a crucial role in understanding space weather and its potential impact on communication systems and power grids on Earth.

Genome sequencing of jamun

- ❖ Researchers at the Indian Institute of Science Education and Research (IISER) Bhopal have conducted the first-ever genome sequencing of the jamun tree.
- ❖ The research team used Oxford Nanopore and 10x Genomics sequencing technologies to sequence the *S. cumini* genome.

- ❖ The analysis revealed a higher number of coding genes in the jamun genome, suggesting a neopolyploidy event.
- ❖ A neopolyploidy event refers to the occurrence of polyploidy.
- ❖ It is a condition in which an organism has multiple sets of chromosomes, leading to an increase in the number of chromosomes in its cells.
- ❖ Polyploidy can arise through different mechanisms, including errors during cell division or hybridization between different species.



Naval Anti-Ship Missile Short Range (NASM-SR)



- ❖ The Indian Navy, in association with DRDO, successfully undertook Guided Flight Trials of the first indigenously developed Naval Anti-Ship Missile Short Range (NASM-SR) from a Sea King 42B helicopter recently.
- ❖ It is the first indigenous air-launched anti-ship cruise missile developed for the Indian Navy.

- ❖ This missile will replace the Sea Eagle missiles, which are currently in use with the Navy.
- ❖ The NASM-SR can cruise at just 5 metres above sea level.
- ❖ This low-level capability of anti-ship missiles is known as sea skimming.

Revolutionizing Geospatial Mapping

- ❖ The Survey of India (SoI), the nation's premier National Survey and Mapping Organization, has joined forces with Genesys International, a leading Indian mapping company specializing in Geospatial solutions.
- ❖ Genesys becomes the first company to establish a public-private agreement with SoI for the creation of a three-dimensional (3D) digital twin-mapping program in India.
- ❖ It aligns with India's National Geospatial Policy 2022, emphasizing the promotion of Atmanirbhar Bharat.
- ❖ The collaboration will introduce the India Map Stack initiative, utilizing high-precision 3D data, Digital Terrain Models (DTM), Digital Surface Models (DSM), and orthoimagery.



Mosquitofish impact in India

- ❖ The various regions in Andhra Pradesh, Odisha, and Punjab have released mosquitofish into local water bodies to address mosquito problems.
- ❖ Mosquitofish is originally from the U.S.
- ❖ In 1928, Gambusia, particularly *Gambusia affinis* and *Gambusia holbrooki*, was first introduced in India during British rule.

- ❖ The idea was to use these fish to feed on mosquito larvae and control mosquito populations.
- ❖ In Australia, introduced mosquitofish contributed to the local extinction of an endemic fish species.
- ❖ In India, reports suggest a decline in tadpoles following the introduction of mosquitofish.
- ❖ The World Health Organization stopped recommending Gambusia as a mosquito control agent in 1982.
- ❖ And in 2018, the National Biodiversity Authority of the Government of India designated *G. affinis* and *G. holbrooki* as invasive alien species.



INS Imphal

- ❖ Defence Minister Rajnath Singh unveiled the crest of Yard 12706 (Imphal).
- ❖ INS Imphal is the third amongst the four Project 15B stealth guided missile destroyers.
- ❖ It is featuring Kangla Palace on the left and 'Kangla-Sa' on the right.
- ❖ The Kangla Palace is an important historical and archaeological site of Manipur and was the traditional seat of the past kingdom.
- ❖ The 'Kangla-Sa' is a mythical being from Manipur history, and is symbolic as the guardian/protector of its people.
- ❖ 'Kangla-Sa' is also the state emblem of Manipur.
- ❖ It was designed by the Indian Navy's Warship Design Bureau and built by Mazagon Dock Shipbuilders Limited (MDL), Mumbai.
- ❖ This ship is a hallmark of indigenous shipbuilding and is amongst the most technologically advanced warships in the world.

Generic Drugs for Rare Disease Cure

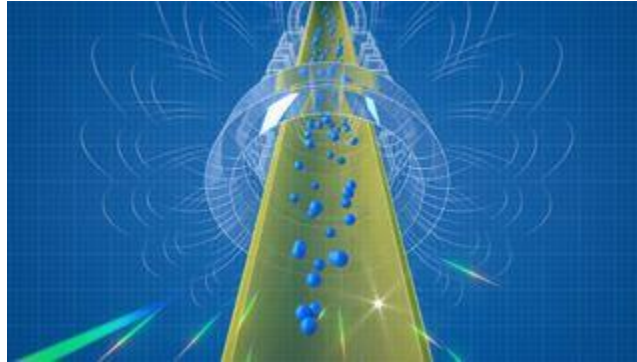


- ❖ The Union Health Ministry in India has introduced generic drugs to treat four rare diseases.
- ❖ These are Tyrosinemia-Type 1, Gaucher's Disease, Wilson's Disease, and Dravet-Lennox Gastaut Syndrome.
- ❖ It is a special initiative by manufacturing four types of homegrown 'Made in India' drugs for rare diseases for the first time.
- ❖ The Central Government has prioritised 13 rare diseases and sickle cell disease.
- ❖ A rare disease is a health condition of a particularly low prevalence that affects a small number of people.
- ❖ Currently, there are eight types of generic drugs and among them, four types of drugs are available in India and another four types of drugs will be available next year.
- ❖ Generic drugs are medications that are equivalent to brand-name drugs in terms of active ingredients, dosage, safety, strength, quality.
- ❖ These are typically sold at a lower cost.
- ❖ Once the patent protection for a brand-name drug expires, other pharmaceutical companies can produce and sell generic versions.
- ❖ The price of these unbranded generic versions of medicine for the four rare diseases will be 100 times lower than the current market value of the branded drugs.

Antimatter responds to gravity

- ❖ CERN, the world's largest particle accelerator, had confirmed that antimatter falls down with gravity — just like everything else.
- ❖ Antimatter is the enigmatic twin of ordinary matter, possessing the same mass but with an opposite electrical charge.

- ❖ Almost all subatomic particles, such as electrons and protons, have an anti matter counterpart.
- ❖ While electrons are negatively charged, antielectrons are positively charged.
- ❖ Likewise, while protons are positively charged, antiprotons are negatively charged.
- ❖ Einstein's general theory of relativity, predicts that all masses, irrespective of differences in their internal structures, react to gravity in a similar manner.



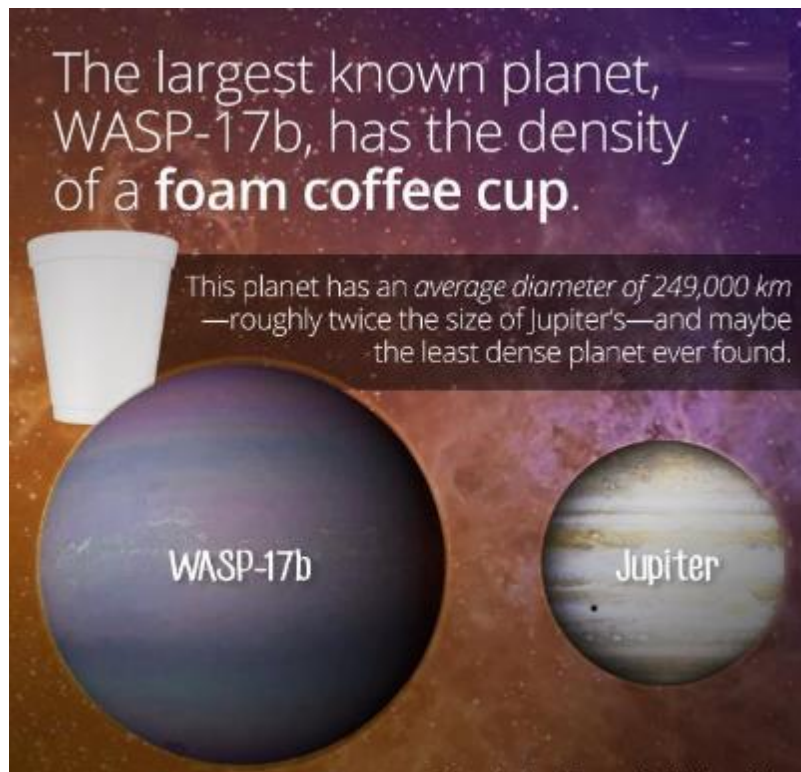
“Singing” Plasma Waves



- ❖ The Scientists discovered and recorded mysterious “singing” plasma waves around planet Mercury.
- ❖ Such chorus waves have been recorded on Earth, Jupiter, and Saturn, and observed at Uranus and Neptune.
- ❖ This is the first time that “whistling” sound waves were found emitting from Mercury’s magnetic field.
- ❖ This discovery is interesting because that while other planets have a strong magnetic field, Mercury doesn’t.
- ❖ Mercury is essentially a big rock with a pretty much non-existent atmosphere.
- ❖ Since it orbits too close to the Sun, the planet is constantly bombarded with solar radiation and wind.

WASP-17b

- ❖ The evidence of quartz nanocrystals detected in the high-altitude clouds of the exoplanet WASP-17b using the James Webb Space Telescope.
- ❖ The detection is the first time that silica particles have been detected in the atmosphere of an exoplanets.
- ❖ WASP-17 b is a gas giant exoplanet that orbits an F-type star.
- ❖ Its mass is 0.78 Jupiter's, it takes 3.7 days to complete one orbit of its star.
- ❖ This exoplanet is about 1,324 light-years away from our planet.



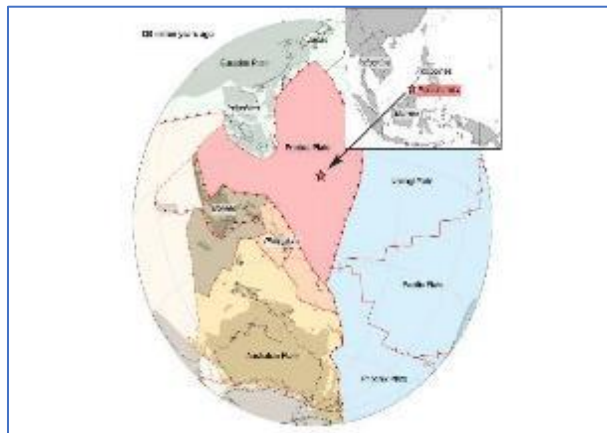
Monkey Chimera



- ❖ Scientists in China have created a First-of-its-Kind, chimera (mixed) monkey with distinctive features like green eyes and glowing fingertips.
- ❖ It was the world's first live birth of a chimeric - or mixed - monkey with stem cells.
- ❖ The lab-born monkey survived for 10 days after which it was euthanised.
- ❖ Chimeric mice were first created in the 1960s and have been commonly used in biomedical research.

Pontus plate

- ❖ Scientists have found an ancient tectonic plate in Southeast Asia that had disappeared at least 20 million years ago.
- ❖ Called the Pontus plate, the fragments of the crust were discovered in the South China Sea near Borneo Island.
- ❖ This tectonic plate was once about 15 million square miles in size, approximately one-quarter of the Pacific Ocean.
- ❖ It is estimated that the Pontus plate formed part of the world's crust before the break-up of the supercontinent Pangaea.
- ❖ But it got subducted beneath the earth over the last millions of years.
- ❖ It has been christened "Pontus plate" because it was submerged under an ocean known as the Pontus Ocean at the time of its existence.



Roads on Moon

- ❖ Researchers have discovered that lunar dust could potentially be used as a raw material for constructing roads and landing pads on the moon.
- ❖ It is consisting primarily of dark grey lunar volcanic rock.
- ❖ Using laser beams with varying strengths and sizes, the scientists simulated concentrated sunlight in their experiments.

- ❖ They successfully produced triangular, hollow-centered tiles by melting dust.
- ❖ It could be interlocked to create solid surfaces for constructing roads and landing pads on the moon.
- ❖ But it would take about 100 days to create a 10 x 10m landing spot.



Disappearance of Saturn's Rings



- ❖ Saturn, the sixth planet from the Sun in our solar system, is renowned for its spectacular and iconic rings.
- ❖ These rings are composed primarily of countless icy particles and tiny rock fragments.
- ❖ Recent studies have claimed that, in 2025, the rings will vanish from public view due to optical illusion.
- ❖ Saturn isn't in perfect alignment with Earth - it's tilted about a 9-degree angle.
- ❖ By 2024, the angle would have decreased to about 3.7 degrees.
- ❖ A year later, due to its movement away from the Earth, the axis of Saturn will assume a vertical position from its current tilted position.

- ❖ It will make the rings look like a thin horizontal strip parallel to Earth.
- ❖ This caused this structure too thin to see.
- ❖ The phenomenon will last till 2032 when the underside of the rings will be revealed.
- ❖ Saturn's ring system extends up to 282,000 kilometres from the planet.
- ❖ But the vertical height is typically about 30 feet in the seven main rings.

AMRIT technology

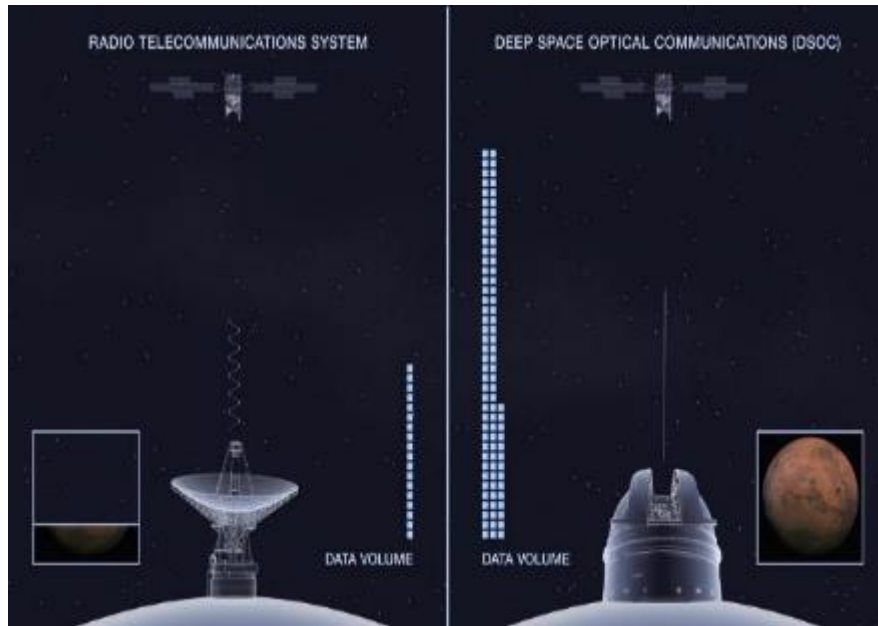
- ❖ The Indian Institute of Technology (IIT) - Madras has developed a technology called 'AMRIT' for the removal of Arsenic and Metal ions from water.
- ❖ AMRIT' stands for Arsenic and Metal Removal by Indian Technology.
- ❖ The technology uses nano-scale iron oxy-hydroxide, which selectively removes arsenic when water is passed through it.
- ❖ This water purifier has been developed for both domestic as well as community levels.
- ❖ Arsenic is a natural component of the earth's crust and is widely distributed throughout the environment in the air, water and land.
- ❖ It is highly toxic in its inorganic form.
- ❖ Long-term exposure to arsenic from drinking water and food can cause cancer and skin lesions.



NASA's DSOC First light

- ❖ Deep Space Optical Communications (DSOC) of the NASA has achieved "first light" transmitting data.

- ❖ This laser space communication system, successfully transmitted data through laser over a distance of 10 million miles.
- ❖ The distance was about 40 times farther than the Moon is from Earth.
- ❖ Thus, it became the farthest-ever demonstration of optical communications.
- ❖ DSOC is placed on the recently launched Psyche spacecraft.
- ❖ Psyche mission is travelling to the main asteroid belt between Mars and Jupiter.



Polarized emissions from an Extragalactic Black hole



IIT Guwahati and ISRO Researchers Uncover X-Ray Polarization in Extragalactic Black Hole Source



Prof. Santabrata Das
 IIT Guwahati



Dr. Anuj Nand
 URSC, ISRO
 Bengaluru



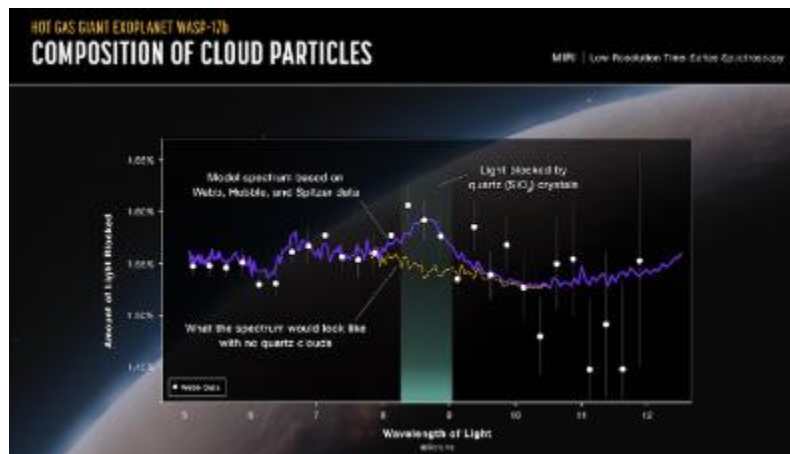
Seshadri Majumder
 IIT Guwahati



Ankur Kushwaha
 URSC, ISRO
 Bengaluru

- ❖ IIT Guwahati and ISRO researchers have uncovered X-ray polarisation in extragalactic black hole source.
- ❖ It's for the first time that the researchers have detected polarised emissions from a black hole source that exists beyond the Milky Way through a technique called X-Ray polarimetry.
- ❖ X-Ray polarisation reveals the pathway to decipher the accreting nature of black hole sources.
- ❖ This is a unique observational technique to identify where radiation comes from near black holes.
- ❖ LMC X-3 emits X-rays that are 10,000 times more powerful than those from the Sun.
- ❖ When these X-rays interact with the material around black holes, specifically when they scatter, it changes the polarisation characteristics, i.e. degree and angle.
- ❖ The Large Magellanic Cloud X-3 (LMC X3) is a binary star system consisting of a black hole and a “normal” star that is much hotter, bigger, and more massive than the Sun.
- ❖ Located in a satellite galaxy of the Milky Way, around 200,000 light years away from Earth.

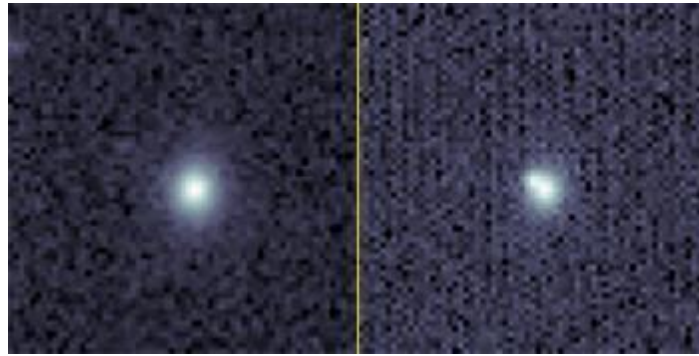
Quartz crystals in distant planet's atmosphere



- ❖ Astronomers detected the evidence of quartz nanocrystals in the high-altitude clouds of the exoplanet WASP-17b.
- ❖ WASP-17b is a “hot Jupiter” exoplanet about 1,300 light-years away from our planet.
- ❖ The detection is the first time that silica particles have been detected in the atmosphere of an exoplanets.

- ❖ Silicates are minerals rich in silicon and oxygen and they make up a bulk of Earth and the Moon's mass, as well as other rocky objects in the solar system.
- ❖ They are extremely common across the galaxy.
- ❖ But the silicate grains that were detected so far in the atmospheres of exoplanets and brown dwarfs seemed to be made of magnesium-rich silicates like olivine and pyroxene.
- ❖ Quartz is pure silicon dioxide.

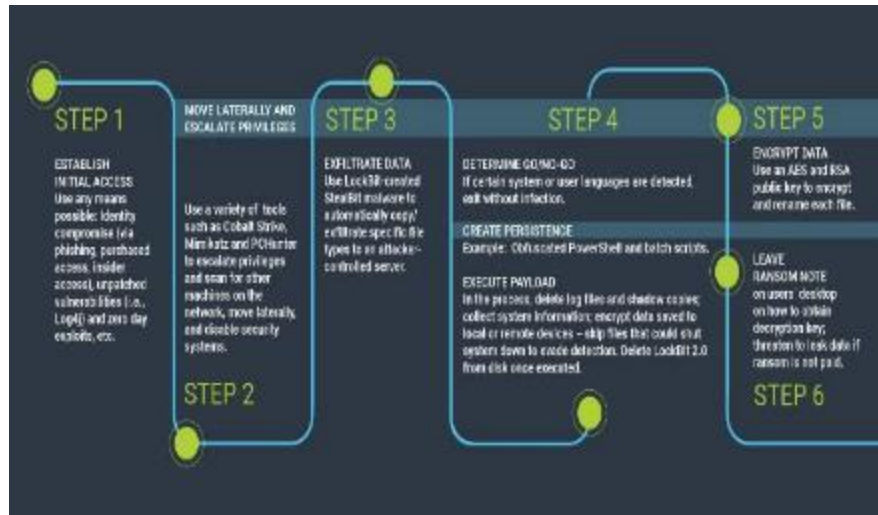
Bright Transient Survey Bot (BTSbot)



- ❖ A new artificial intelligence (AI) tool and a fully automated process have successfully detected, identified, and classified its first supernova.
- ❖ It detected the newly discovered supernova named SN2023tyk
- ❖ The AI tool is called BTSbot - Bright Transient Survey Bot.
- ❖ It was trained on more than 1.4 million historical images from 16,000 astronomical sources.

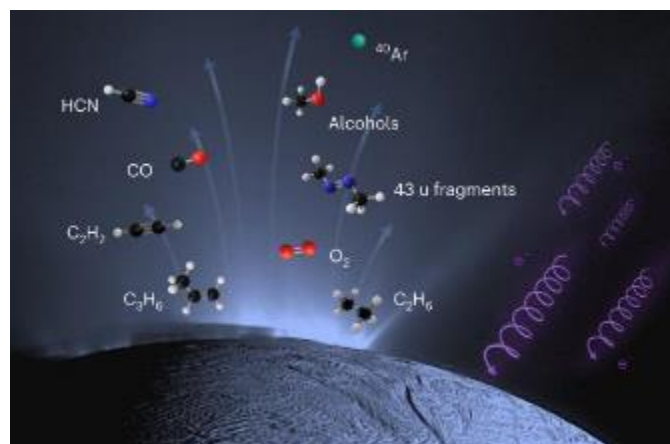
Lockbit 3.0

- ❖ The US division of China's biggest lender the Industrial and Commercial Bank of China was recently hit by a ransomware attack.
- ❖ Ransomware named Lockbit 3.0 was behind the attack.
- ❖ LockBit 3.0 was created by Lockbit, a group which effectively sells its malware on the dark web.
- ❖ Lockbit 3.0 is the most popular strain of ransomware, accounting for around 28 per cent of all known attacks from July 2022 to June 2023.
- ❖ Ransomware is a type of malicious software, that either blocks access to, or threatens to publish sensitive data until the victim pays a ransom fee to the attacker.



Hydrogen cyanide in Enceladus

- ❖ Scientists have found hydrogen cyanide, a key molecule in the creation of life in the oceans of Saturn's icy moon Enceladus.
- ❖ The oceans beneath the frozen surface of Enceladus may have more chemical energy than previously believed.
- ❖ They detected hydrogen cyanide along with methanol, ethane, and oxygen in the plumes of water vapour erupting from the surface of Enceladus.
- ❖ Enceladus, one of Saturn's 146 moons, is an object of great interest to astronomers owing to its composition.
- ❖ It has a white, streaky surface made of water ice.
- ❖ Beneath this frozen crust lies a warmer, salty ocean that covers the whole moon.
- ❖ The circular moon is just about 500 km wide, with a surface temperature of -200°C.
- ❖ But its interiors host several sources of energy and heat.



Krutrim AI

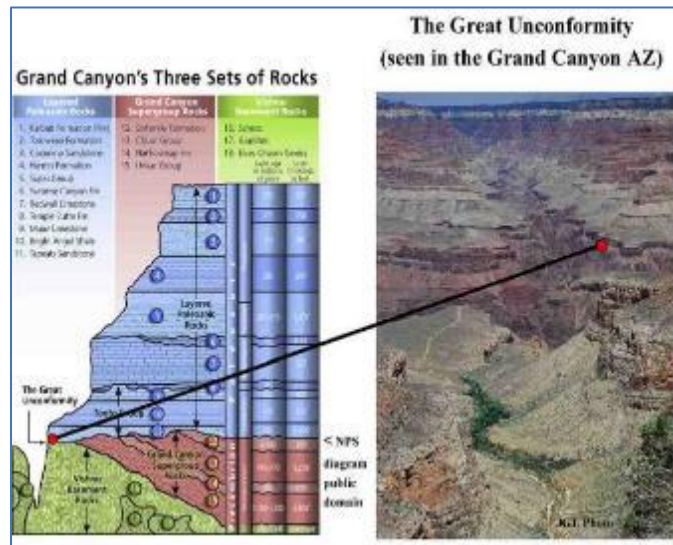


- ❖ Ola's CEO recently unveiled Krutrim (which means artificial in Sanskrit).
- ❖ This has also been touted as "India's first full-stack AI" solution.
- ❖ At first glance, the platform has a stark resemblance to ChatGPT.
- ❖ Krutrim AI is better than GPT-4 in various Indic languages.
- ❖ It can understand over 20 Indian languages and generate content in about 10 languages.
- ❖ It includes Marathi, Hindi, Bengali, Tamil, Kannada, Telugu, Odia, Gujarati, and Malayalam.
- ❖ It will be available in two classifications: the base Krutrim model, and Krutrim Pro, the more powerful one.

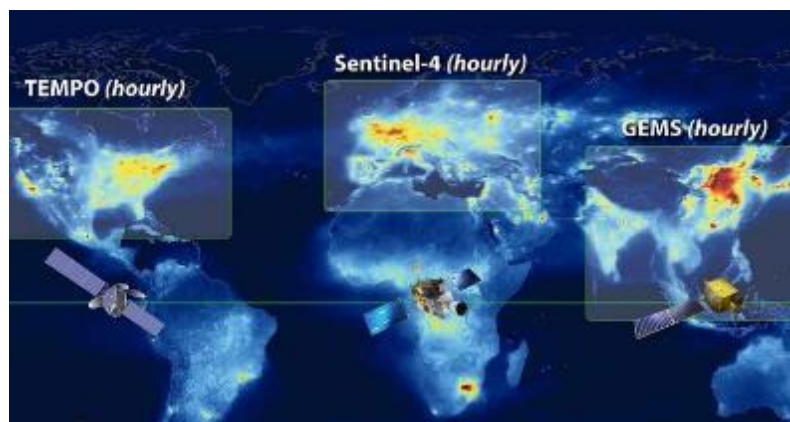
The Great Unconformity

- ❖ Scientists have recently unravelled the mystery of "The Great Unconformity,"
- ❖ It is a phenomenon where large sections of the Earth's crust are missing from the geological record.
- ❖ This gap most likely emerged from the intense glacial erosion during a period known as "Snowball Earth," when much of the planet was covered in ice.
- ❖ The process of glacial erosion, occurring during this ancient time, led to a significant removal of rocks, creating a gap in the sedimentary record.
- ❖ This geological oddity was first observed in 1869 at the Grand Canyon in Arizona.
- ❖ A recent study estimated that an astonishing 3-5 kilometres of rock globally were eroded due to glacial activity.
- ❖ It is leaving a billion cubic kilometres of pre-Cambrian material missing from records.
- ❖ The more extensive erosion occurred before the Phanerozoic era than previously believed.

- ❖ The Phanerozoic is the current and the latest of the four geologic eons in the Earth's geologic time scale.
- ❖ It is covering the time period from 538.8 million years ago to the present.



TEMPO Satellite



- ❖ TEMPO is NASA's first Earth-observation satellite in geostationary orbit.
- ❖ TEMPO provides hourly updates on atmospheric pollutants, offering a more dynamic view of air quality.
- ❖ It is part of a virtual constellation with South Korea's GEMS and the European Space Agency's upcoming satellite.
- ❖ Thus, it aiming for comprehensive air pollution monitoring over the Northern Hemisphere.
- ❖ TEMPO will help to analysis of pollution, including studies of rush hour pollution, the potential for improved air quality alerts, the effects of lightning on ozone, the movement of pollution from forest fires and volcanoes, and even the effects of fertilizer application.

Volcanic Activity on Mars

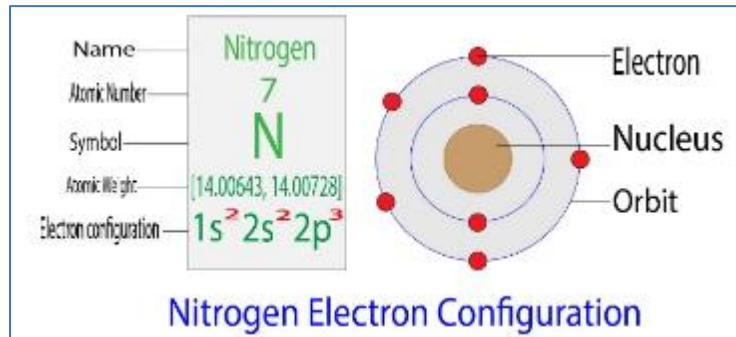
- ❖ The recent survey revealed and documented more than 40 volcanic events in the Mars.
- ❖ One of the largest flows infilling a valley named Athabasca Valles with almost 1,000 cubic miles of basalt.
- ❖ This volcanic activity may have occurred within the last 120 million years.
- ❖ No volcanic activity has so far been observed on Mars.
- ❖ But "Elysium Planitia was volcanically much more active than previously thought and might even still be volcanically alive today.
- ❖ Elysium Planitia is the youngest volcanic terrain on the planet.



Unusual nitrogen-9 nucleus

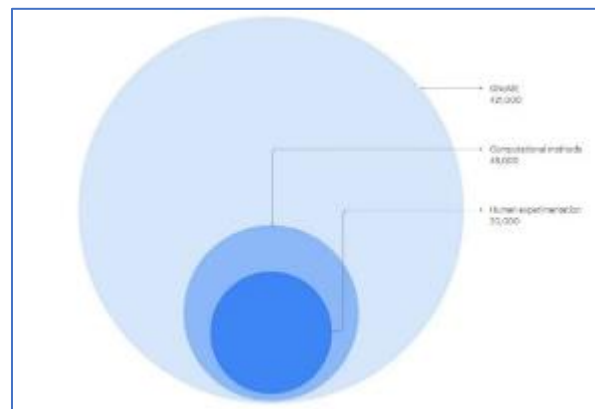
- ❖ Scientists have just caught their first glimpse of an ultra-rare version of nitrogen containing five more protons than it can stably hold.
- ❖ Scientists discovered hints of the new isotope, called nitrogen-9.
- ❖ Atoms of the nitrogen-9 isotope are characterised by seven protons and two neutrons – which is an unusually high proton-to-neutron ratio.
- ❖ Generally, nitrogen comes as the isotope nitrogen-14, with seven protons and seven neutrons.
- ❖ This disparity has a critical effect on the isotope's stability, influencing its decay processes as well as overall behaviour.
- ❖ For one, the high proton content places nitrogen-9 atoms beyond the conventional stability thresholds.
- ❖ There are 118 elements. Each element is unique by virtue of the different numbers of electrons, protons, and neutrons its atoms contain.

- ❖ Isotopes are atoms of a given element that vary only in the number of neutrons.



Graph Networks for Materials Exploration

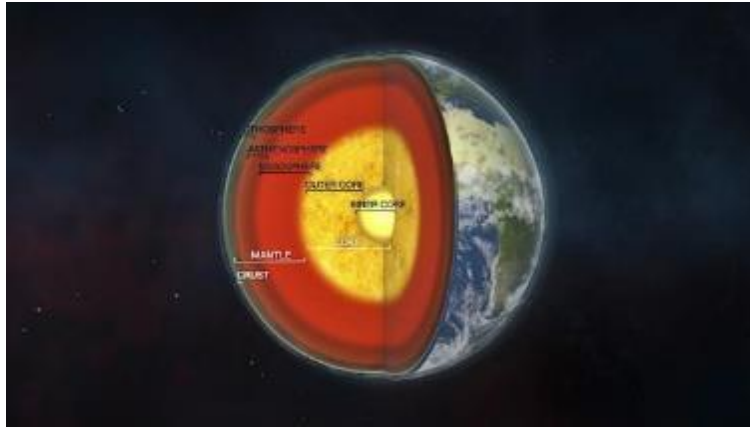
- ❖ Google DeepMind and Lawrence Berkeley National Laboratory researchers recently introduced Graph Networks for Materials Exploration (GNoME).
- ❖ It is an AI tool to discover new materials and predict material stability.
- ❖ So far, GNoME have discovered over 2.2 million new materials, including 380,000 stable materials.
- ❖ It is equivalent to nearly 800 years' worth of knowledge.



E prime layer of earth

- ❖ The formation of new enigmatic layer – E prime layer – at the outermost part of Earth's core is a result of "surface water penetrating deep into the planet.
- ❖ Tectonic plates carrying surface water have transported it deep into the Earth over billions of years.
- ❖ Subducted water reacts chemically with core materials under high pressure.
- ❖ This reaction leads to the formation of a hydrogen-rich, silicon-depleted layer at the outer core.

- ❖ Silica crystals generated by this process ascend and blend into the mantle, impacting the overall composition.
- ❖ These modifications in the liquid metallic layer could potentially result in reduced density and altered seismic characteristics.



Mission to Apophis



- ❖ NASA relaunched a mission to study the “God of Chaos” asteroid as it started coming closer to the orbit of Earth.
- ❖ Apophis, also called the “God of Chaos”, is likely to fly close to Earth on April 13, 2029, and will be only 20,000 miles away.
- ❖ The space rock, which measures nearly 370 yards across, approaches the Earth every 7,500 years.
- ❖ Benu is the most prominent asteroid among them which has a 1/2700 chance of hitting Earth between 2175 and 2195.
- ❖ Dust and rock samples collected from Benu were recently brought back to Earth by NASA.

ENVIRONMENT

Barda Wildlife Sanctuary

- ❖ After Gir National Park and Sanctuary, the Barda Wildlife Sanctuary (BWLS) is set to become the second home to Asiatic lions.
- ❖ The Gujarat Forest Department presented its proposal to make BWLS the second home to the lions as part of “Project Lion @ 2047”.
- ❖ Project Lion is an initiative launched by the Government of India in 2021 to conserve and protect the Asiatic Lion and its habitat.
- ❖ It is situated approximately 15 kilometres from Porbandar and 100 kilometres west of Gir Forest National Park, Gujarat.
- ❖ Previous to its 1979 establishment as a wildlife sanctuary, Barda was a private reserve for Porbandar and Jamnagar.



IUCN’s Comprehensive Conservation Action Plans for Threatened Pollinator Groups in Europe

- ❖ In May 2023, the International Union for Conservation of Nature (IUCN), in collaboration with the IUCN Species Survival Commission, the Invertebrate Conservation Committee, the Hoverfly Specialist Group, and Buglife, finalised three Action Plans outlining conservation needs and priorities for threatened pollinator species in the EU.
- ❖ These Action Plans were developed within the framework of an EU-funded project initiated in April 2021.
- ❖ The initial Action Plan, "Canarian Islands endemic pollinators of the Laurel Forest zone - Conservation plan 2023-2028," focuses on four insect species—two butterflies, one bee, and one hoverfly—cohabiting the ancient Laurel Forest habitat.

- ❖ The second Action Plan, "Teasel-plant specialised bees in Europe - Conservation action plan 2023–2030," highlights the challenges faced by wild bees specialised in teasel plants.
- ❖ The final Action Plan is dedicated to six hoverfly species specialised in veteran trees and wet, decaying wood.
- ❖ These saproxylic insects, vital pollinators, also serve as nutrient recyclers, pest predators, and indicators of ecosystem health.
- ❖ "Hoverflies specialised to veteran trees in Europe – Conservation Action Plan 2023–2030" emphasizes the significance of forestry practices that consider the needs of pollinator species dependent on dead wood and ancient trees.



India's emission in 2023

- ❖ A government report 'The Third National Communication to the United Nations Framework Convention on Climate Change' was released.
- ❖ It outlines the nation's substantial progress in decoupling economic growth from greenhouse gas emissions.
- ❖ India achieved an impressive 33% reduction in GDP emission intensity from 2005 to 2019, surpassing targets 11 years early.
- ❖ Despite 7% annual GDP growth, emissions rose only 4% per year.

- ❖ India, with 17% of the world’s population, contributes less than 4% of global carbon emissions.
- ❖ India created an additional carbon sink of 1.97 billion tonnes of CO2 equivalent during the same period.
- ❖ The country is on track to achieve its target of reducing GDP emission intensity by 45% by 2030, compared to 2005 levels.
- ❖ The energy sector contributed the most to anthropogenic emissions (75.81%), followed by agriculture (13.44%), Industrial Process and Product Use (8.41%), and waste (2.34%).
- ❖ The Land Use, Land-Use Change, and Forestry (LULUCF) sector removed a significant 4,85,472 gigatonnes of carbon dioxide equivalent (GgCO₂e) of emissions.
- ❖ India proposes to host the annual UN climate talks in 2028.
- ❖ India stands out among developing countries, submitting its third national communication with GHG inventory of 2019.
- ❖ It is showcasing more recent data compared to other nations like China (2014), Brazil (2016), South Africa (2017), and Saudi Arabia (2012).
- ❖ India aims to achieve 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.
- ❖ The country is committed to becoming a net-zero economy by 2070, highlighting its dedication to long-term sustainability.



Damoh Tiger reserve

- ❖ Madhya Pradesh is to get the largest tiger reserve in the country spanning 2,300 square kilometres.

- ❖ The Central government has approved a proposal to merge the two wildlife sanctuaries in Madhya Pradesh.
- ❖ These two are the Nauradehi Wildlife Sanctuary and the Rani Durgavati Wildlife Sanctuary.

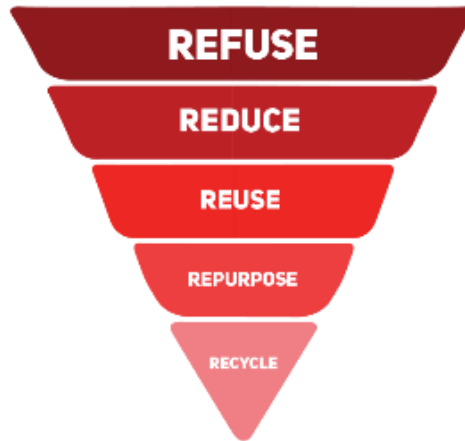


Accredited Compensatory Afforestation (ACA) Program



- ❖ The success of the Jamuna Open Cast Project (OCP) in Madhya Pradesh exemplified the success of this program.
- ❖ It aims to reclaim the erstwhile coal field for afforestation.
- ❖ It ceased mining activities in June 2014, due to resource depletion.
- ❖ According to recent satellite data, 88.07% of the quarry area has been successfully reclaimed.
- ❖ Compensatory afforestation is a program to ensure that the forest land diversion to non-forest purposes shall be accompanied by afforestation on an equal area of land.
- ❖ It is a legal requirement under the Compensatory Afforestation Fund Act of 2016.

“Bio-vision” for Bharat

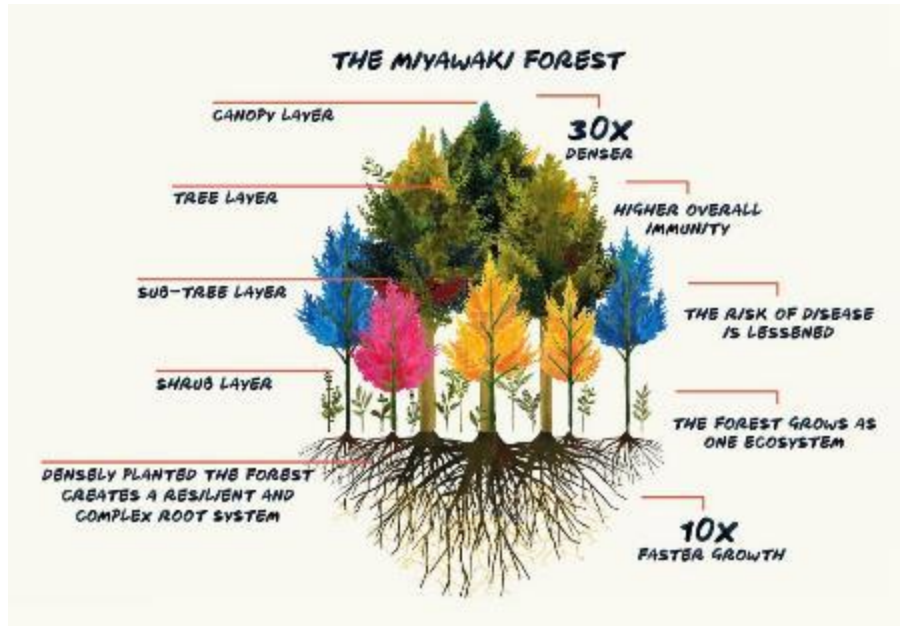


- ❖ The inaugural meeting of the Biotechnology Research and Innovation Council (BRIC) Society at Delhi emphasized the need to define a “Bio-vision” for India.
- ❖ BRIC brings together 14 top science autonomous institutions under a unified platform to maximize the impact of biotech.
- ❖ It is an apex autonomous society operating under the Department of Biotechnology (DBT), Ministry of Science and Technology
- ❖ The “Zero Waste Life on Campus” program was also launched in this meeting.
- ❖ iBric (institutions of BRIC) will strengthen the 5 R’s of zero waste with a 6th ‘R’- “Research Insights”.
- ❖ The 5 R's are ‘Refuse, Reduce, Reuse, Repurpose, Recycle’.
- ❖ This initiative aligns with Mission LiFE movement.

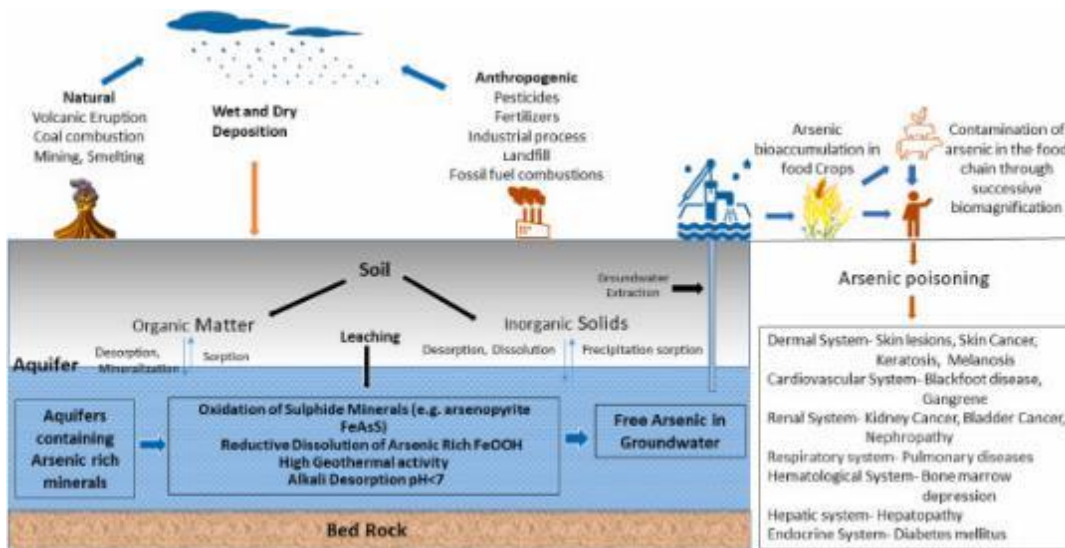
“Miyawaki” Plantation Method

- ❖ South Eastern Coalfields Ltd (SECL), a subsidiary of Coal India Ltd, is set to implement the Miyawaki method for the first time in its operational areas.
- ❖ The initiative is expected to increase green cover around the Gevra mine of Chhattisgarh, the largest coal mine in India.
- ❖ Gevra mega project recently became the first mine in the country to achieve 50 million tonnes of coal production
- ❖ Miyawaki is an initiative of creating mini forests in urban areas for the afforestation programme.
- ❖ It was named after Japanese botanist Akira Miyawaki.
- ❖ This method involves planting 2 to 4 different types of indigenous trees within every square metre.

- ❖ In this method, the trees become self-sustaining and don't require regular manuring and watering.
- ❖ They grow to their full length within 3 years.



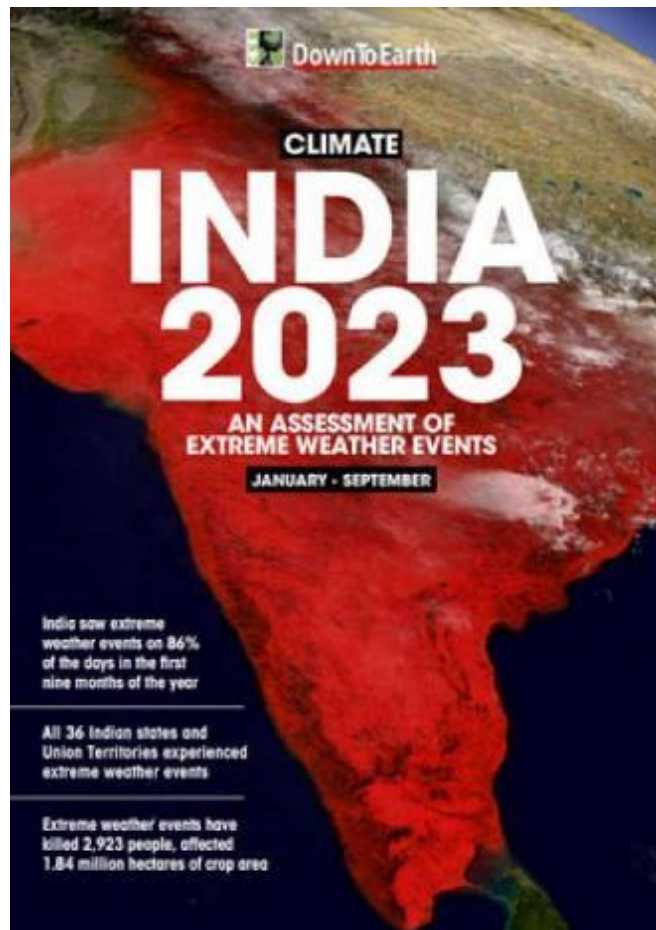
Arsenic and Fluoride in India



- ❖ Arsenic has been detected in groundwater in parts of 230 districts in 25 states and fluoride in 469 districts in 27 states.
- ❖ The groundwater contamination reported by the Central Ground Water Board (CGWB) is mostly geogenic in nature and does not show significant change over the years.

- ❖ The contamination is primarily geogenic, indicating that constituents are naturally present in the rock or soil matrix and enter groundwater through various chemical processes.
- ❖ The CGWB under the Ministry of Jal Shakti conducts regular monitoring and assessment of groundwater quality including groundwater contamination of Arsenic and Fluoride.
- ❖ A recent MoU between the CGWB and Geological Survey of India targets groundwater contamination studies.
- ❖ It is including arsenic and fluoride, in eight states: Punjab, Haryana, Andhra Pradesh, Uttar Pradesh, Chhattisgarh, Jharkhand, Bihar, and Assam.

India 2023: An assessment of extreme weather events



- ❖ It was a report by Down To Earth (DTE) magazine and the Centre for Science and Environment.
- ❖ Extreme weather events occurred on 85 out of 92 days, spreading across 33 states and UTs, with Maharashtra and Rajasthan being the worst-hit.

- ❖ Madhya Pradesh experienced the highest frequency of extreme weather events, occurring almost every second day.
- ❖ Bihar recorded the highest number of human deaths at 642, followed by Himachal Pradesh (365 deaths) and Uttar Pradesh (341 deaths).
- ❖ Himachal Pradesh also reported the highest number of damaged houses (15,407).
- ❖ Punjab saw the most significant loss of animal life, with 63,649 livestock deaths.

UNFCCC COP 28 Summit

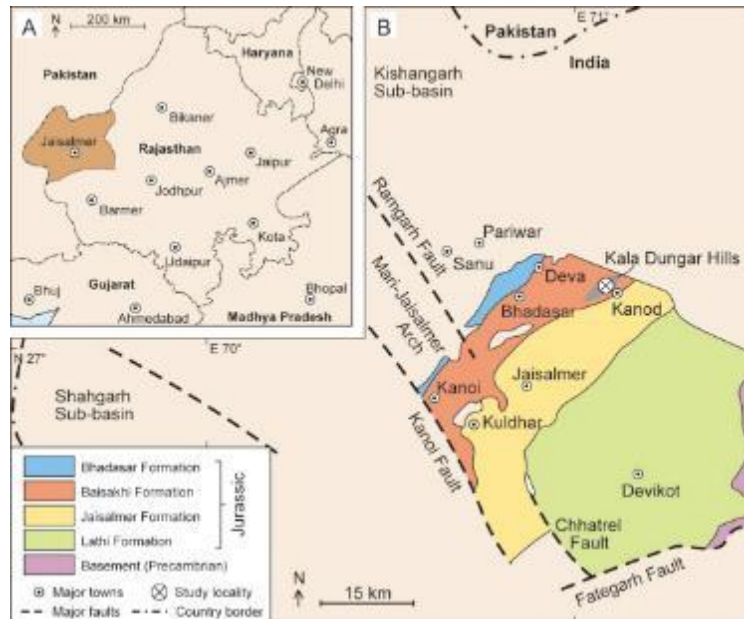


- ❖ It was hosted at Dubai by the UAE.
- ❖ It is the 2023 United Nations Climate Change Conference or Conference of the Parties of the UNFCCC.
- ❖ Sultan Al Jaber was named President-Designate of COP28 UAE
- ❖ It has been held annually since the first UN climate agreement in 1992.
- ❖ The "parties" are the countries that signed up to the original UN climate agreement in 1992.
- ❖ The Paris agreement 2015 Keep global average temperature rise below 2°C, with efforts to limit it to 1.5°C above pre-industrial levels.
- ❖ India offers to host the 33rd edition of COP in India in 2028.
- ❖ It also advocated “Green Credit initiative,” a non-commercial effort to create a carbon sink.
- ❖ COP28 is the first COP to discuss the impact of climate change on public health.

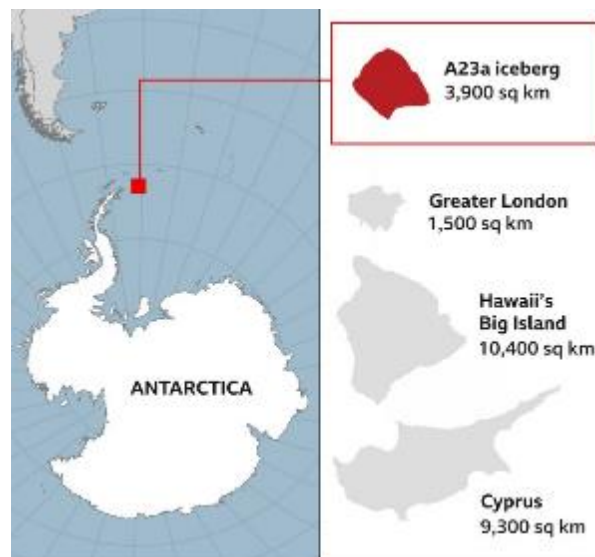
Early Cretaceous (aptian) shark fossils from India

- ❖ India's first Early Cretaceous shark fossils were discovered in the Habur Formation of the Jaisalmer Basin, Rajasthan.
- ❖ These are dating back approximately 115 million years.

- ❖ It was a transformative era for sharks, witnessing the emergence of new species and the disappearance of older ones.
- ❖ The present study introduces new dimensions, unveiling the first Early Cretaceous lamniform sharks in India.



A23a



- ❖ It is the World's Biggest Iceberg.
- ❖ It was arising from the Filchner-Ronne Ice Shelf in West Antarctica in 1986.
- ❖ It has embarked on a rare journey after being largely stationary for more than three decades.

- ❖ It has been a static fixture in the Weddell Sea
- ❖ The Weddell Sea is part of the Southern Ocean and contains the Weddell Gyre.

Virgin Atlantic Airlines

- ❖ It flies World's 1st 100% Sustainable Aviation Fuel (SAF) Flight from London to New York, US.
- ❖ It is the first time a commercial airliner has flown long haul on 100% SAF.
- ❖ Derived from sources like waste cooking oil, it has the potential to reduce emissions by up to 70%.
- ❖ But the high cost and tight supply of materials needed to make SAF make large-scale production difficult.
- ❖ Currently, SAF accounts for less than 0.1% of global jet fuel usage.
- ❖ The Aviation industry accounts for an estimated 2-3% of global carbon emissions.



Manis Mysteria

- ❖ Scientists recently discovered a ninth variety species of pangolins, tentatively named "Manis mysteria".
- ❖ Pangolins are mammals of the family Manidae and the monotypic order Pholidota.
- ❖ Eight extant species of pangolins are currently recognized till date.
- ❖ The four Asian pangolins belonging to the genus Manis, and the four African pangolins belonging to the genera Phataginus and Smutsia.
- ❖ This new species is believed to have diverged from its Philippine and Malayan relatives approximately five million years ago.



Dodo (*Raphus cucullatus*)

- ❖ Geneticists and conservationists have joined forces to re-introduce the dodo to its once native habitat in the island of Mauritius.
- ❖ The dodo is a bird that lived in the Mauritius region and was last spotted 350 years back, in 1662.
- ❖ The phrase “dead as a dodo” is common in English to refer to something totally dead.
- ❖ The dodo is believed to be about 1 metre tall, flightless and weighed between 10 and 18 kilograms.



Eastern Ghats Nature Interpretation Centre

- ❖ This ambitious project has been officially opened to the public.
- ❖ It is located along the periphery of the Kambalakonda Wildlife Sanctuary in Visakhapatnam.
- ❖ The centre is a first-of-its-kind art-led project of the Andhra Pradesh Forest Department.

- ❖ This centre showcases the critical ecosystems of the Eastern Ghats and also shows the association of tribal communities with the forests.



Saiga Antelope

- ❖ The species' (Saiga tatarica) category was changed from Critically Endangered to Near Threatened by the International Union for Conservation of Nature (IUCN).
- ❖ The Saiga has two sub-species: Saiga tatarica tatarica (found in most of the range) and Saiga tatarica mongolica (found only in Mongolia).
- ❖ The antelope were once found throughout the Eurasian Steppe, the great band of grassland that stretches from Hungary in Europe to Manchuria in Asia.
- ❖ Saiga populations in Kazakhstan have recovered from a perilously low estimate of just 48,000 in 2005 to now over 1.9 million.
- ❖ The Mongolian subspecies numbers 15,540 individuals, according to a November 2023 census.



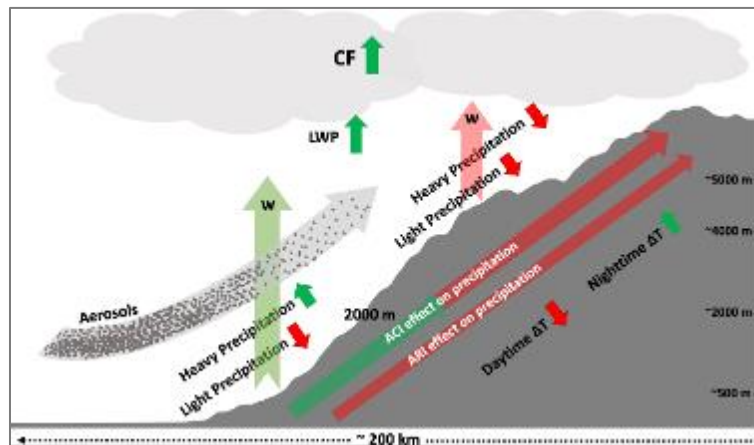
Lorrainosaurus (pliosaur)

- ❖ A 170-million-year-old ancient marine reptile's fossils have revealed that the animal from the Age of Dinosaurs is the oldest-known mega-predatory pliosaur.

- ❖ Pliosaurus were close relatives of plesiosaurs, and were ancient reptiles that lived in oceans.
- ❖ Plesiosaurs are first appeared on Earth 170 million years ago, and were highly skilled swimmers.
- ❖ The organism had jaws more than 1.3 metres long with large conical teeth.

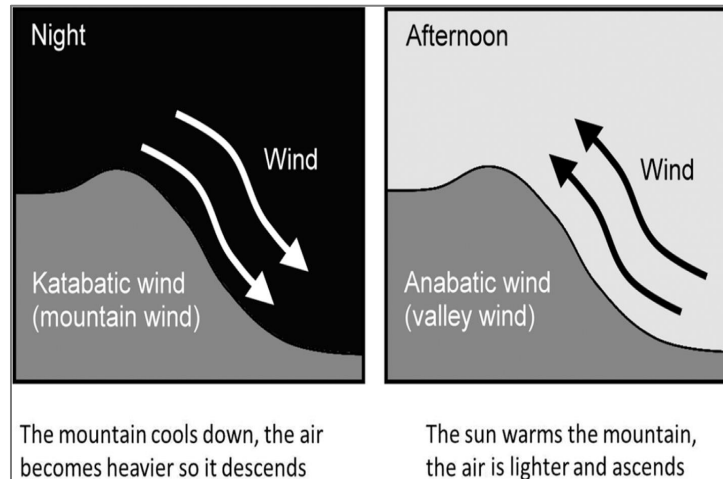


Aerosol Impact on Climate in the Himalayan Region



- ❖ ISRO's Ahmedabad-based Physical Research Laboratory (PRL) has found that the aerosols are heating up the Himalayas.
- ❖ It will remain a key factor driving climate change over the Hindu Kush–Himalaya–Tibetan Plateau (HKHTP) region".
- ❖ Aerosols alone account for over 50% of the total warming (aerosols + greenhouse gases) of the lower atmosphere.
- ❖ This is a first-time analysis of its kind that includes ground-based observations, satellite data and model simulations.

Himalayan Katabatic Winds



- ❖ Scientists have noted that when high temperatures hit high-altitude ice masses, 'katabatic' winds are triggered that blow cold air to lower-altitude areas.
- ❖ A temperature gap is created between the air flowing above the mountains and the cooler air directly in contact with ice masses.
- ❖ This leads to an increase in turbulent heat exchange at the glacier's surface and stronger cooling of the surface air mass.
- ❖ As the warm air gets cooler and denser, it sinks, triggering the katabatic winds in neighbouring areas down the slope.
- ❖ While this phenomenon may slow down the effects of global warming in some areas, its sustainability is not guaranteed over the coming decades.

Wakayama soryu

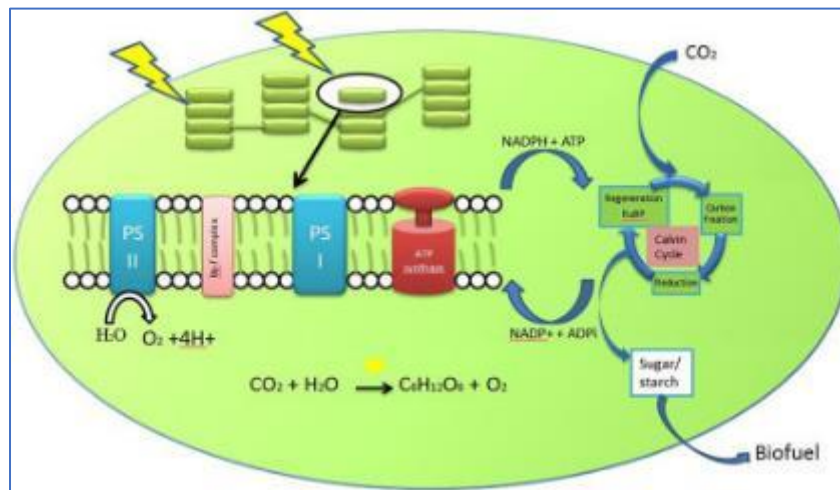


- ❖ 72 million years ago, the Pacific seas were terrorised by a giant monster, called the "blue dragon".

- ❖ Researchers have named the monster Wakayama Soryu, which means Blue Dragon.
- ❖ The apex predator was a mosasaur, an extinct, large marine reptile from the Late Cretaceous period.
- ❖ It has been named after Japan's Wakayama Prefecture where its fossil was found.

Algae assisted carbon capture

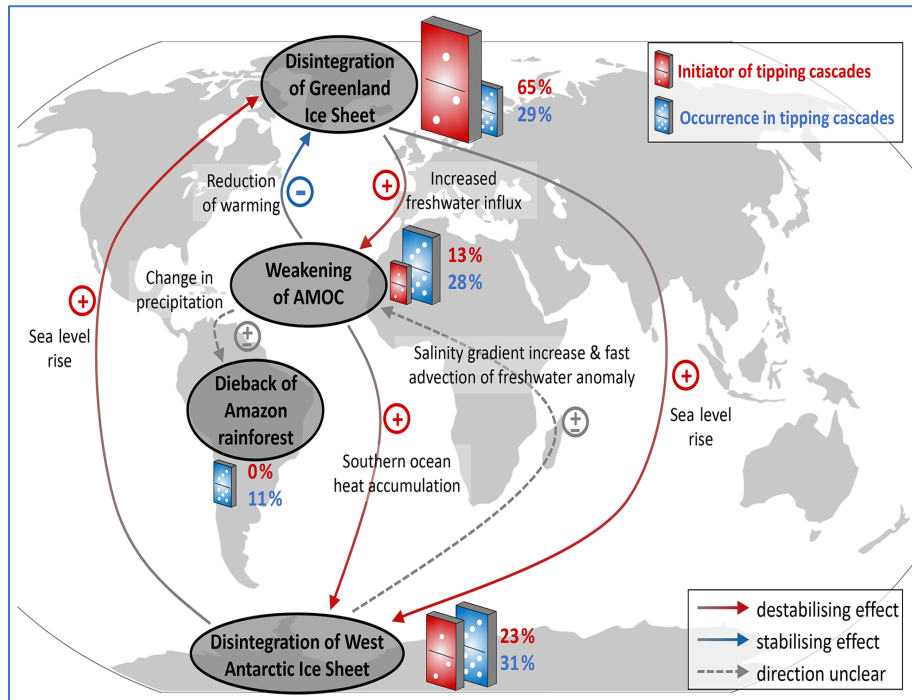
- ❖ IIT Jodhpur's innovative technology uses algae-assisted fuel cells to capture carbon dioxide, treat wastewater and generate power.
- ❖ Compared to the conventional method of bubbling flue gases into algal ponds, their indirect biochemical route proves more efficient.
- ❖ It converts CO₂ into carbonates, enhancing the solubility of inorganic carbon in water, thereby fostering increased carbon retention in the water.
- ❖ The use of closed systems like PBRs is highlighted as preferable to open ponds.
- ❖ They prevent decomposition of bicarbonates into CO₂ and maintain pH levels.
- ❖ Additionally, the technology utilizes wastewater, utilizing a thermo-tolerant algal strain (*Chlorella vulgaris*) capable of thriving in such conditions.



Climate Domino Effect: Exploring Teleconnections

- ❖ The links between weather phenomena at widely separated locations on earth, also called climate teleconnections, are increasingly getting stronger globally.
- ❖ These teleconnections have affected the southern hemisphere more prominently over the last 37 years.
- ❖ Teleconnections describe how climate events such as wildfires and floods in one part of the world can affect weather thousands of kilometers away.

- ❖ The region's most vulnerable to teleconnections were in southeastern Australia and South Africa.
- ❖ The southern hemisphere is more vulnerable because it is largely covered by oceans.
- ❖ It contributes to more stable teleconnections and Rossby wave or planetary wave formation.
- ❖ Rossby waves occur in oceans and the atmosphere.
- ❖ They naturally occur due to the Earth's rotation and help transfer heat from the tropics towards the poles and cold air towards the tropics.



Arctic Report Card for 2023

- ❖ The year 2023 shattered the record for the warmest summer in the Arctic.
- ❖ Temperatures in the Arctic have been rising more than three times faster than the global average.
- ❖ Greenland's ice sheet summit recorded melting in late June, only its fifth melting event on record.
- ❖ Sea surface temperatures in the Barents, Kara, Laptev and Beaufort seas were 9 to 12 degrees Fahrenheit (5 to 7 degrees Celsius) above normal in August.
- ❖ Snow accumulation during the winter of 2022-23 was above average across much the Arctic.

- ❖ Shifts in wind patterns and increasingly intense ocean storms.
- ❖ Yukon River Chinook have decreased in size by about 6% since the 1970s.



Chum Salmon's Migration

- ❖ Chum salmon, a species of anadromous salmonid fish, have found a new location to spawn—the Arctic waters.
- ❖ Chum salmon are said to be anadromous, which means they hatch in freshwater streams and rivers.
- ❖ Then they migrate out to the saltwater environment of the ocean to feed and grow.
- ❖ They do not reside in fresh water for an extended period.
- ❖ Due to the climate change, the Arctic is becoming conducive for them to breed in large numbers.



Endangered Bat Species

- ❖ Researchers have discovered a new creature considered to be “very rare” and endangered on the French island of Corsica.

- ❖ The bat discovered in the mountains belonged to a previously unknown species in the genus *Myotis*.
- ❖ It has over 120 species found throughout six continents.
- ❖ This newfound species was named ‘nustrale’, which means “ours” in the Corsican dialect.

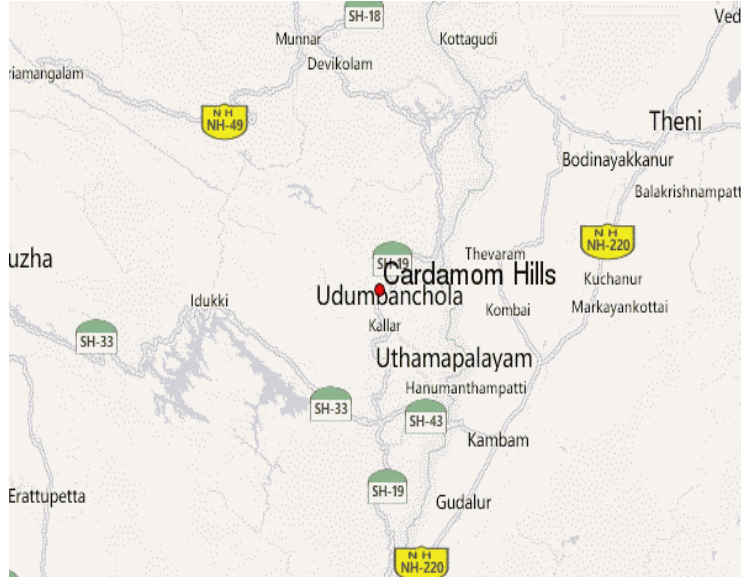


Blue dragons in Chennai



- ❖ Two venomous marine organisms typically found in the deep sea discovered in Chennai.
- ❖ The Blue Sea Dragon (*Glaucus atlanticus*), and colonies of polyps known as Blue Button (*Porpita porpita*) were spotted in the Besant Nagar.
- ❖ Blue Buttons, resembling button-like shapes, are not singular organisms but colonies of small predators called hydroids.
- ❖ The Blue Buttons are often confused with jellyfish.
- ❖ The Blue Sea Dragon, a rare deep-sea organism, is known for its unique appearance.
- ❖ It is a sea slug, a class of marine organisms that are shell-less molluscs with a wide range of colours and shapes.

Pappathi Chola

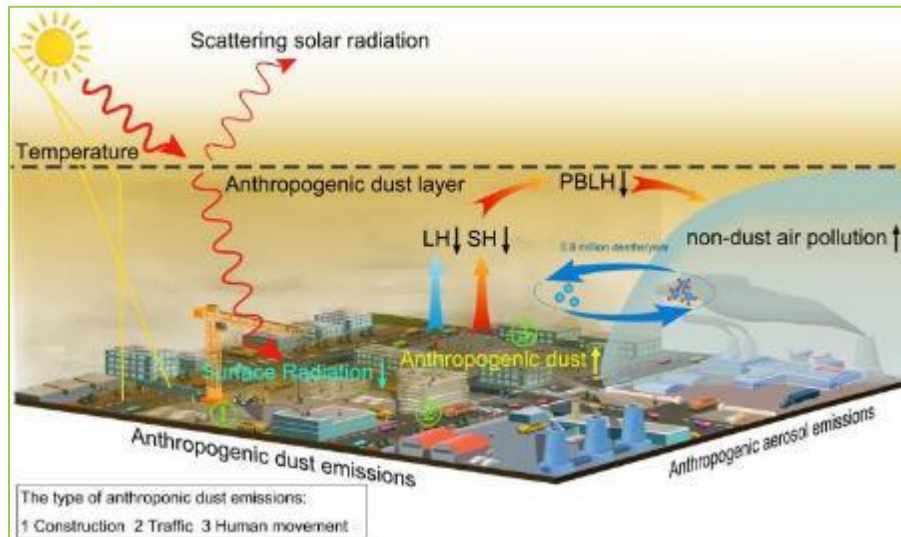


- ❖ The government has suspended its plans to declare 364.5 hectares of land at Chinnakkanal as reserve forest.
- ❖ Pappathi Chola, known for its high butterfly population, derived its name from the Tamil word Pappathi meaning butterflies.
- ❖ While Pappathi means butterfly, Chola means shola land.
- ❖ Many butterflies reach the area during their migratory course from the rain shadow forests of Tamil Nadu back to the higher elevations of Munnar.
- ❖ Pappathi Chola is also regarded as a hub of balsams (*Impatiens balsamina*) and rare varieties of orchids.
- ❖ It is located right in the middle of the Chathurangappara hills and Mathikettan shola.
- ❖ Last year, the region witnessed the blooming of Neelakurinji.

Impact of Human Activities on Global Dust Emissions

- ❖ The Food and Agriculture Organization released a report named “Sand and dust storms: A Guide to Mitigation, Adaptation, Policy, and Risk Management Measures in Agriculture”.
- ❖ Human activities contribute 25 per cent of global dust emissions, with agriculture being the main anthropogenic source.
- ❖ Every year, more than two billion tonnes of sand and dust travel over thousands of kilometres through the Earth’s atmosphere.
- ❖ Sand and dust storms are a meteorological phenomenon characterised by strong and turbulent winds lifting an ensemble of small particles to great heights.

- ❖ They are known to have adverse impacts on human health, the environment and economies.
- ❖ Sand and dust storms present a formidable challenge to achieving 11 of the 17 Sustainable Development Goals.
- ❖ Anthropogenic factors such as land-use change, agriculture, water diversion and deforestation contribute to the 25 per cent.



New Jumping Spiders



- ❖ A team of researchers have discovered two new species of jumping spiders that belong to the genus *Afraflacilla*.
- ❖ Only three species belonging to the genus had been hitherto discovered in the country.
- ❖ Specimens of *Afraflacilla kerala* were spotted in Irinjalakuda and Kuttanad.
- ❖ *Afraflacilla adavathurensis* was discovered from Adavathur in Tiruchirappalli.

- ❖ Jumping spiders of the genus *Afraflacilla* are widespread from Africa to Australia with various known species.
- ❖ Recent findings have revealed the presence of the genus in Rajasthan, Kerala and Tamil Nadu.
- ❖ With the new findings, the number of known *Afraflacilla* species has grown to 47 with Africa reporting the most at 19.

Dollfus' Stargazer

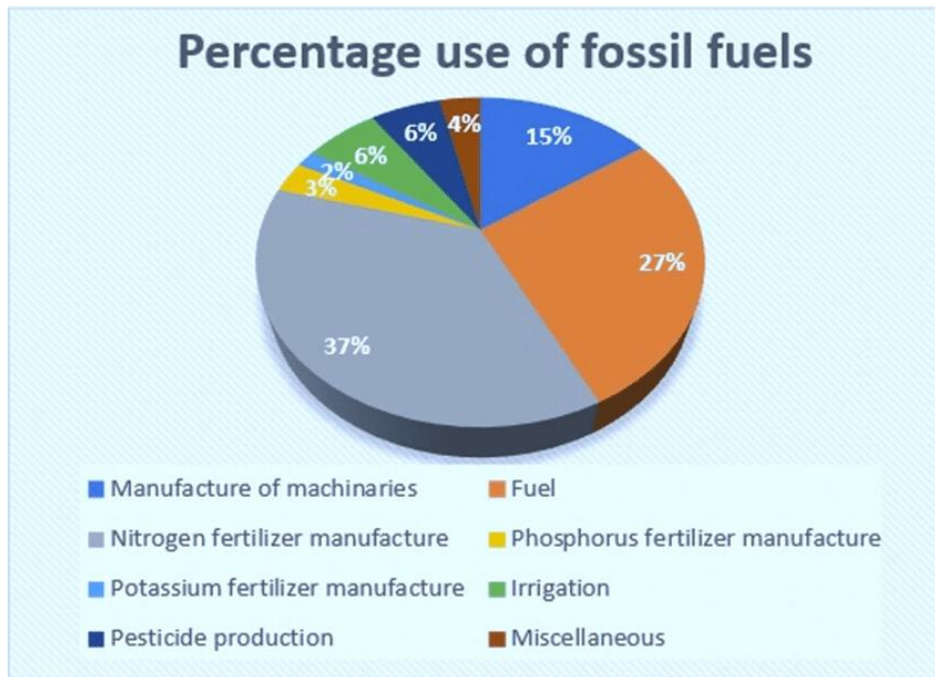
- ❖ Researchers discovered two new genera, and four new species of millimetre-sized crustacean parasites that infest fishes and other marine life forms.
- ❖ Researchers have named the new family *Uranoscopicolaidae*, as this parasitic copepod was found to live off the Dollfus' Stargazer (*Uranoscopus guttatus*).
- ❖ It is a fish dwelling in depths ranging from 300-550 m off the southwest Indian coast.
- ❖ This is also the first discovery and description of a new crustacean family from India.
- ❖ The discovery of the new family *Uranoscopicolaidae* has also led to the creation of a new genus and species, *Hirodai ohstukai*, under it.
- ❖ The team also discovered a new genus and isopod species which has been named *Glyptothoa sagara*.
- ❖ Another new isopod crustacean parasite species, named *Elthusa aquabio*.
- ❖ The fourth new species is a 11-12 mm "flesh-penetrating parasitic copepod."



Fossil Fuel Usage in Food Production

- ❖ Food production currently accounts for an estimated 15 per cent of global fossil fuel usage annually.
- ❖ It is equivalent to 4.6 gigatonnes of carbon dioxide.

- ❖ This food production drives emissions on par with the combined emissions of all European Union countries and Russia.
- ❖ The global food demand is expected to increase by 35-56 per cent by 2050, with a corresponding rise in fossil fuel usage.
- ❖ This is the first time that researchers have estimated global fossil fuel usage across the entire food supply chain, from farm to plate.



World's smallest fanged frog



- ❖ Biologists have discovered a new species of the terrestrially-nesting fanged frog genus *Limnonectes* living on Sulawesi Island, Indonesia.

- ❖ The species has the smallest adult body size among all *Limnonectes* frogs from the island.
- ❖ It has a maximum snout-vent length of about 3 cm (1.2 inches).

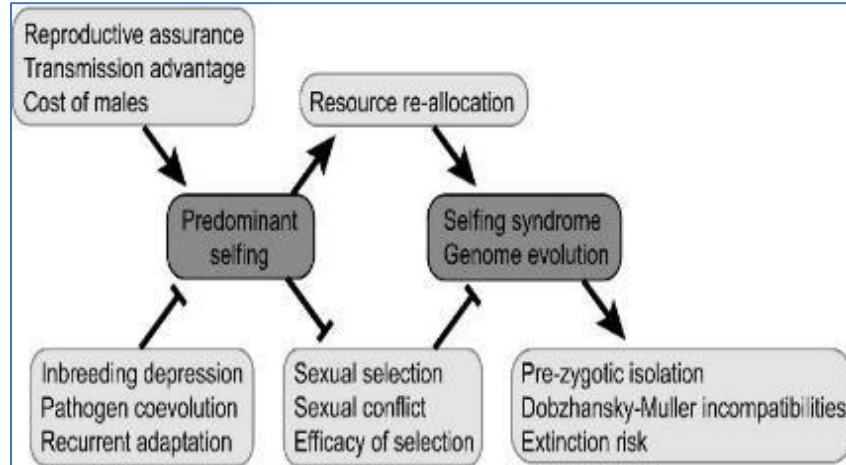
Eurasian otter in Chinnar Wildlife Sanctuary



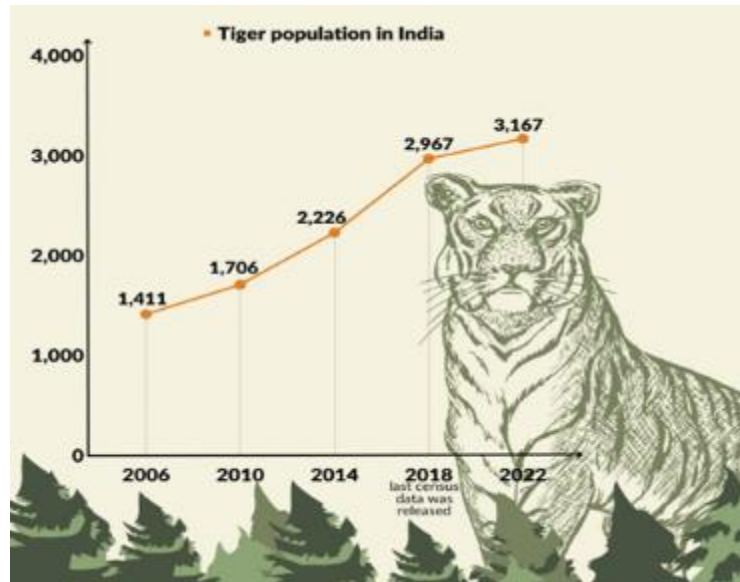
- ❖ Team of researchers have discovered Eurasian otter in the Chinnar Wildlife Sanctuary in Idukki, a first in Kerala.
- ❖ The scientific name of the Eurasian otter is *Lutra lutra*.
- ❖ With this, there are three species of otters found in Kerala, including smooth-coated otter and small-clawed otter.

Selfing Syndrome

- ❖ Scientists have discovered a flower growing in Paris, France, which is producing less nectar and smaller flowers to attract fewer pollinators.
- ❖ The plant evolved to self-pollinate in order to attract fewer pollinators due to the decreasing availability of insects.
- ❖ This convergent evolution of a selfing syndrome threatens plant pollinator interactions.
- ❖ Self-pollination is the process by which plants reproduce themselves.
- ❖ The behaviour is contrary to the convention of angiosperms, which rely on insects to pollinate in order to reproduce — an interconnected relationship in nature.
- ❖ This disruption of 100 million years of evolution is likely to have serious consequences.
- ❖ It may cause insect declines to accelerate, as well as making plant populations less diverse and more vulnerable to environmental change.



204 tigers lost in 2023



- ❖ India lost a record 204 tigers this year from January 1-December 25.
- ❖ Maharashtra, with 52 deaths, topped the list of Indian states.
- ❖ It was followed by India's top tiger state, Madhya Pradesh with 45 deaths. Uttarakhand came next with 26 deaths.
- ❖ Tamil Nadu and Kerala recorded 15 deaths each.
- ❖ The deaths this year have been termed in some media reports to be the highest in a decade.
- ❖ India's tiger population was increased by 200 from 2018 to 2022.
- ❖ The number of tigers in India was 3,167 in 2022, up from 2,967 in 2018.

REPORTS AND INDICES

World Malaria Report 2023

- ❖ The WHO report reveals that global malaria cases surged to 249 million in 2022, It was surpassing pre-pandemic levels by 16 million.
- ❖ The global malaria response faces numerous challenges, including COVID-19 disruptions, drug and insecticide resistance, humanitarian crises, resource constraints, and climate change impacts.
- ❖ The report acknowledges achievements, including the first WHO-recommended malaria vaccine, RTS,S/AS01.
- ❖ The recent recommendation of a second vaccine is R21/Matrix-M.
- ❖ Four countries, Nigeria (27%), the Democratic Republic of the Congo (12%), Uganda (5%), and Mozambique (4%), accounted for almost half of all malaria cases globally.
- ❖ In 2022, India accounted for a staggering 66% of malaria cases in the WHO South-East Asia Region.
- ❖ Plasmodium vivax, a protozoal parasite, contributed to almost 46% of cases in the region.
- ❖ India and Indonesia accounted for about 94% of all malaria deaths in the WHO South-East Asia Region.
- ❖ Africa bears the highest malaria burden, accounting for 94% of cases and 95% of global malaria deaths in 2022.
- ❖ WHO aimed to reduce malaria incidence and mortality rates by 75% in 2025 and 90% in 2030.



India Infrastructure Report on Urban Planning and Development 2023

- ❖ It is an annual publication initiated by the IDFC Foundation in 2001.
- ❖ It is the detailed roadmap for improving existing cities through urban redevelopment.
- ❖ It was published by IDFC Foundation, Infrastructure Development Corporation (Karnataka) Ltd. (iDeCK) and the National Institute of Urban Affairs (NIUA) of New Delhi.
- ❖ IDFC Foundation is a not-for-profit institution, working on philanthropic initiatives in social infrastructure.



Crime in India 2022

- ❖ It is the National Crime Records Bureau (NCRB) report released by the Ministry of Home Affairs.
- ❖ The NCRB, established in 1986, has four divisions: Crime and Criminal Tracking Network and Systems (CCTNS), Crime Statistics, Finger Prints, and Training
- ❖ It is gathering and examining crime-related information based on the Indian Penal Code (IPC) and Local Laws (SLL).
- ❖ The NCRB report underlines that the data record the incidence of registered crime, not the actual occurrence of crime.
- ❖ Kolkata has secured its position as India's safest city for the third consecutive year in the rate of recognizable crimes (IPC) per lakh population among metropolises.

- ❖ Pune (Maharashtra) and Hyderabad (Telangana) secured the second and third positions, respectively.
- ❖ It is followed by Chennai, Coimbatore and Surat.

Safest Cities in India		
Ranks	City	IPC Rate
1.	Kolkata	78.2
2.	Chennai	178.5
3.	Coimbatore	211.2
4.	Surat	215.3
5.	Pune	219.3
6.	Hyderabad	266.7
7.	Bengaluru	337.3
8.	Ahmedabad	360.1
9.	Mumbai	376.3
10.	Kozhikode	397.5

- ❖ While Kolkata excelled in overall safety, the report highlighted an increase in crimes against women.
- ❖ The crime rate against women in Kolkata was recorded at 27.1 per lakh population, surpassing figures for Coimbatore (12.9) and Chennai (17.1).
- ❖ Delhi logged the highest rate of FIRs linked to crimes against women in the country in 2022.
- ❖ States like Rajasthan, Madhya Pradesh, Chhattisgarh, and Telangana experienced a surge in cases against Scheduled Castes (SC) and Scheduled Tribes (ST) persons in 2022.
- ❖ Madhya Pradesh and Rajasthan persist as key contributors.
- ❖ Maharashtra reported the highest number of cases in animal attacks.
- ❖ Uttar Pradesh, Odisha, Tamil Nadu, Chhattisgarh, and Madhya Pradesh followed.
- ❖ The highest number of bite cases were reported from Rajasthan followed by Madhya Pradesh, Tamil Nadu and Uttar Pradesh, respectively.
- ❖ States with the highest charge sheeting rates under IPC crimes are Kerala, Puducherry, and West Bengal.

NCRB Data on Farmer Suicides 2022

- ❖ India saw 11,290 suicides in the farming sector in 2022.
- ❖ Of these victims, 5,207 were farmers and 6,083 were agricultural labourers.
- ❖ The year 2022 witnessed a distressing surge in farmer suicides across India.
- ❖ At least one farmer is taking their own life every hour in 2022.

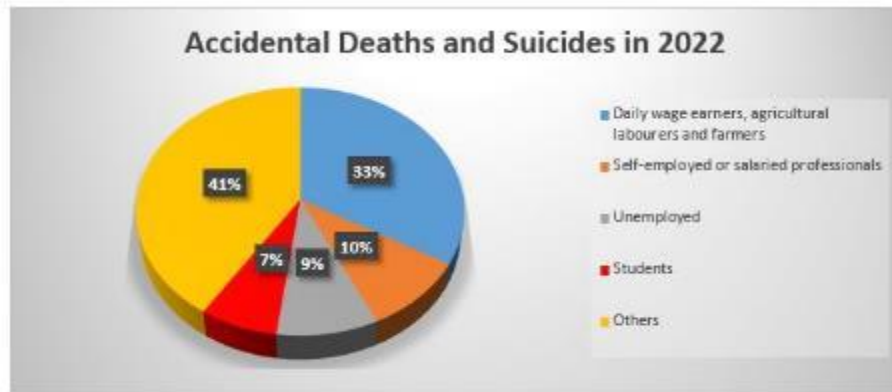
- ❖ The suicides among agricultural labourers, those reliant on daily wages from farming activities, surpassed those among farmers and cultivators.
- ❖ Maharashtra reported the highest number of farmer suicides (4,248), contributing to 38% of all cases in India.
- ❖ Vidarbha and Marathwada district report most of the suicides in the state
- ❖ Karnataka (2,392), Andhra Pradesh (917), Tamil Nadu (728), and Madhya Pradesh (641) followed.
- ❖ Uttar Pradesh recorded the highest increase in suicides, rising by 42.13% compared to 2021.
- ❖ Andhra Pradesh reported a 16% decrease.
- ❖ Farm suicide constitutes around 7-8 per cent of the total suicides reported in the country
- ❖ The NCRB report does not specify its definition of farmers and agricultural labourers.
- ❖ Operational holding is used to differentiate between marginal, small, medium and large labourers.
- ❖ Farmers with land holding up to 1 hectare (2.5 acres) are termed marginal farmers, while small farmers hold between 1-2 hectares.

Year	2022	2021	2020	2019	2018
Farmer suicides	5,207	5,318	5,579	5,957	5,763
Agri labourer suicides	6,083	5,563	5,098	4,324	4,586
Total	11,290	10,881	10,677	10,281	10,349

Accidental Deaths and Suicides in India (ADSI) 2022 Report

- ❖ It was released by the National Crime Record Bureau's (NCRB).
- ❖ Maharashtra tops Maximum suicides.
- ❖ It is followed by Tamil Nadu Madhya Pradesh, Karnataka, Kerala and Telangana.
- ❖ No suicides of Farmers & Agricultural Laborers are recorded at 8 states and 4 UT's.

- ❖ Among women suicides, homemakers were highest (about 14% of in total suicides).
- ❖ It is followed by students and daily wage earners.
- ❖ Mizoram had no cases of atrocities on SC and ST in 2021
- ❖ But it has reported atrocity cases in 2022.



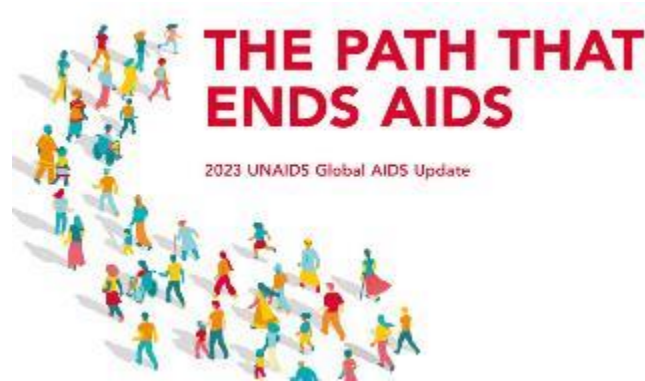
1st Aspirational Delta Ranking of ABP

- ❖ NITI Aayog released the inaugural delta rankings of the Aspirational Blocks Programme (ABP).
- ❖ The rankings were determined based on the performance and progress of the blocks in achieving 40 key performance indicators (KPIs) grouped into 5 themes.
- ❖ Approximately 500 blocks from 329 districts across 27 states and 4 Union Territories are part of this programme.
- ❖ Tiriyani Block in Kumuram Bheem Asifabad district, Telangana, clinched the top spot.



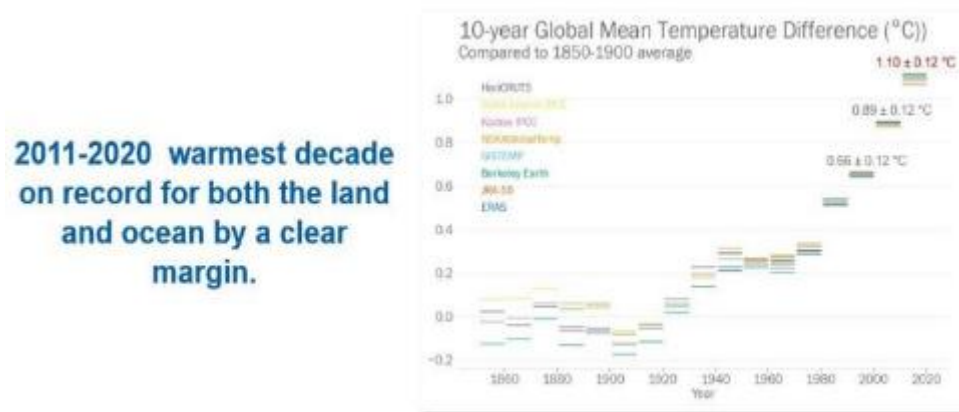
- ❖ The second position was secured by Kaushambi block in Kaushambi District, Uttar Pradesh.
- ❖ In addition to ABP, the ADP rankings for October 2023 were also announced.
- ❖ Rayagada (Odisha) and Jamui (Bihar) claimed the first and second positions, respectively.

UNAIDS World Aids Day report 2023



- ❖ The report by UNAIDS was titled 'The Path that Ends AIDS'.
- ❖ It emphasizes the political and financial choices involved in ending AIDS.
- ❖ The report notes a fourfold increase in people on antiretroviral treatment worldwide, from 7.7 million in 2010 to 29.8 million in 2022.
- ❖ The 2022 HIV Estimates for India indicate approximately 2.47 million people living with HIV, with a decline of over 42% in new infections since 2010.
- ❖ The key priority for India is reaching individuals aware of their status but not on treatment.

The Global Climate 2011-2020: A Decade of Acceleration

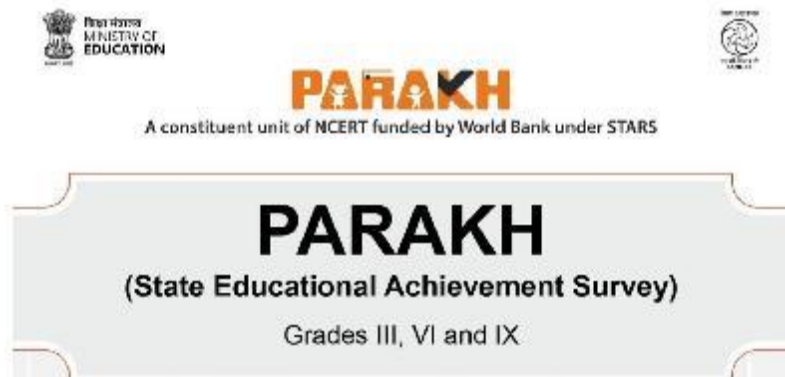


- ❖ The World Meteorological Organisation (WMO) has published this report.
- ❖ The decade 2011-2020 emerged as the warmest on record for both land and ocean.
- ❖ Global mean temperature soared to 1.10 ± 0.12 °C above the 1850-1900 average.
- ❖ 2016 (due to an El Niño event) and 2020 are standing out as the warmest years.

- ❖ CO₂ was reaching 413.2 ppm in 2020.
- ❖ Greenland and Antarctic ice sheets lost 38% more ice compared to 2001-2010.
- ❖ The Antarctic ozone hole diminished in the 2011-2020 period, credited to successful international action under the Montreal Protocol.

State Educational Achievement Survey (SEAS) 2023

"Important Updates Regarding State Educational Achievement Survey 2023"



- ❖ It is the inaugural State Educational Achievement Survey.
- ❖ It was to assess the learning competencies of students at the end of foundational, preparatory, and middle educational stages.
- ❖ It will be with a special focus on Language and Mathematics.
- ❖ It was organized by the Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH), the national assessment regulator.
- ❖ Notably, all states and Union Territories, with the exception of Chhattisgarh, Delhi, Odisha, Punjab, Rajasthan, and West Bengal, actively participated in the survey.

State of the Wet Tropics Report

- ❖ It was prepared and submitted by the management and conservation authority for the UNESCO-listed Queensland wet tropics to the state government.
- ❖ It highlighted the growing threats and declining health of species such as ringtail possum.
- ❖ Climate change has pushed 25 per cent more organisms in Australia's biodiversity-rich northern rainforests into the list of threatened species since 2020.

Dynamic Ground Water Resource Assessment Report 2023

Ground water Resources assessment 2004 to 2023

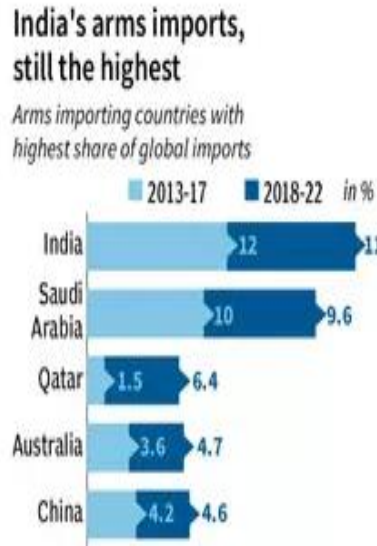
S. No.	Ground Water Resources Assessment	2004	2009	2011	2013	2017	2020	2022	2023
1	Annual Ground Water Recharge (bcm)	433	431	433	447	432	436	438	449
2	Annual Extractable Ground Water Resource (bcm)	399	396	398	411	393	398	398	407
3	Annual Ground Water Extraction for Irrigation, Domestic & Industrial uses (bcm)	231	243	245	253	249	245	239	241
4	Stage of Ground Water Extraction (%)	58 %	61 %	62 %	62 %	63 %	62 %	60%	59%

- ❖ The Union Ministry of Jal Shakti has released this report for the entire country.
- ❖ It was previously carried out in 1980, 1995, 2004, 2009, 2011, 2013, 2017, 2020 and 2022.
- ❖ It aims to determine the prevailing status of groundwater resources and the impact of ongoing groundwater management practices.
- ❖ As per the 2023 assessment report, the total annual ground water recharge for the entire country is 449.08 billion cubic meters (BCM).
- ❖ And the annual ground water extraction for the entire country is 241.34 BCM.
- ❖ It is marking an increase of 11.48 BCM compared to the previous year (2022).
- ❖ Further, out of the total 6553 assessment units in the country, 4793 units categorized as 'Safe' and 736 units have been categorized as 'Over-exploited'.

Stockholm International Peace Research Institute (SIPRI) report 2023

- ❖ Sales of arms and military services by the 100 largest armament companies in the world reached \$597 billion in 2022.
- ❖ It was 3.5 per cent less than 2021 in real terms.
- ❖ This is first decline since the SIPRI list of the top 100 arms companies was established in 2015.
- ❖ Indian defense PSUs Hindustan Aeronautics, Bharat Electronics, and Mazagon Docks are among the top 100 arms-producing companies.
- ❖ The US dominates the list, but its revenues fell by 7.9%.
- ❖ USA is accounted for 51% of the total armament's revenue of the top 100 companies.

- ❖ As per earlier SIPRI figures, India (\$81.4 billion) is the fourth largest military spender in the world, after the US (\$877 billion), China (\$292 billion) and Russia (\$86.4 billion).
- ❖ India also continues to remain the world's largest arms importer, accounting for 11% of the total global imports in 2018-2022.



2023 World Digital Competitiveness Ranking

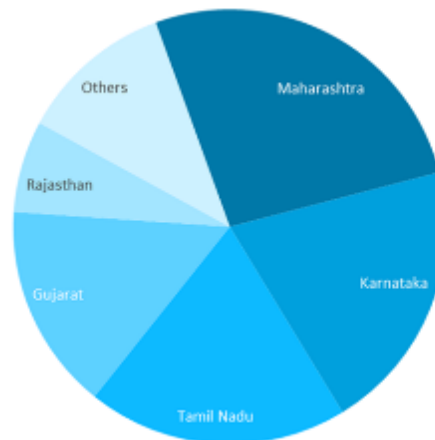
- ❖ The International Institute for Management Development (IMD) unveiled this.
- ❖ India ranks 49th in this index.
- ❖ The United States ranks first in the index.
- ❖ Netherlands is in second place and Singapore is in third place.
- ❖ This index is prepared on the basis of 3 indicators.
- ❖ These indicators are – knowledge, technology and future preparedness.
- ❖ Total of 64 countries have been included in this ranking.
- ❖ A parallel report from the World Bank identified five countries—China, Brazil, India, Indonesia, and Vietnam—as responsible for 75% of the world's total digital infrastructure investment in 2023.

Q3 2023 Mercom India Rooftop Solar Report

- ❖ It was released by Mercom India Research institution.
- ❖ The rooftop solar installations in India registered a 34.7% year-on-year (YoY) jump.
- ❖ India added 907 MW of open access solar capacity in Q3 2023.

- ❖ It was in the third quarter (Q3- July-September) of calendar year (CY) 2023.
- ❖ Maharashtra (26.5%) added the most capacity.
- ❖ It is followed by Karnataka (20.3%) and Tamilnadu (19.5%).
- ❖ As of September 2023, India's total open access solar capacity reached 11 GW.
- ❖ Karnataka accounts for 33.3% of the cumulative capacity
- ❖ Maharashtra (14.1%) and Tamilnadu (10.3%) followed in the total installed open access solar capacity.

Top 5 States: Solar Open Access Installations in Q3 2023 (%)



Source: Mercom India Research (Sep 2023)

The WMO provisional State of the Global Climate report 2023

- ❖ It confirms that 2023 is set to be the warmest year on record.
- ❖ The global temperatures (until the end of the October of 2023) are soaring to approximately 1.4 degrees Celsius above preindustrial levels (1850-1900)
- ❖ It surpasses the previous record set in 2016.
- ❖ The current findings, however, do not imply that the world has crossed the long-term warming threshold of 1.5C.
- ❖ The scientists consider 1.5C as the upper limit for averting catastrophic climate impacts as per the 2015 Paris Agreement.

QS world University ranking for sustainability 2024

- ❖ Among the 56 Indian universities listed, the University of Delhi (DU) claimed the top spot, securing the 220th position worldwide.
- ❖ This university is also ranking 30th in Asia.

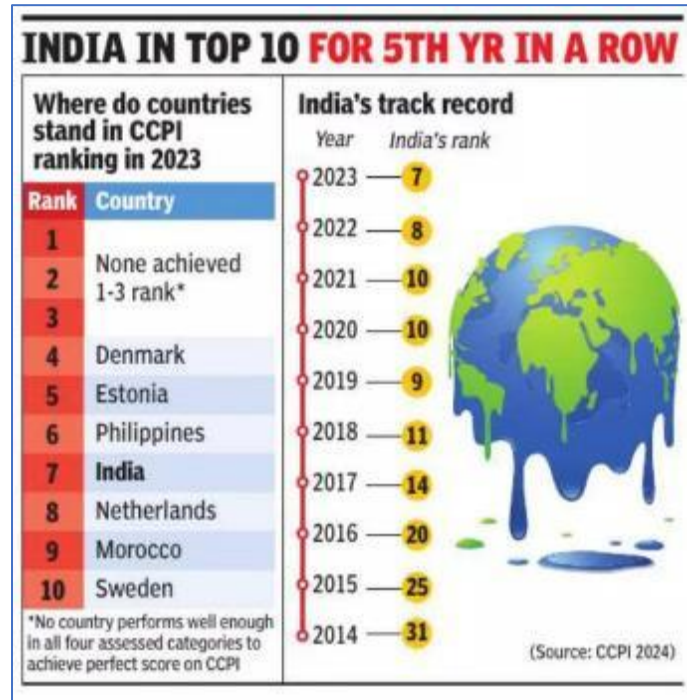
- ❖ IIT Madras, Kharagpur, Roorkee, and Delhi are securing ranks of 344th, 349th, 387th, and 426th, respectively.
- ❖ In the Environmental Sustainability indicator, Four Indian universities have found a place among the world's top 100, with Vellore Institute of Technology (VIT) emerging as the national leader (49 globally).
- ❖ Australia stands out as one of the top-performing nations in this year's rankings, securing the second-highest number of universities in the top 10.
- ❖ It is matching the UK and Australia with two, and following Canada, which boasts three.

**QS WORLD UNIVERSITY RANKINGS:
SUSTAINABILITY 2024**

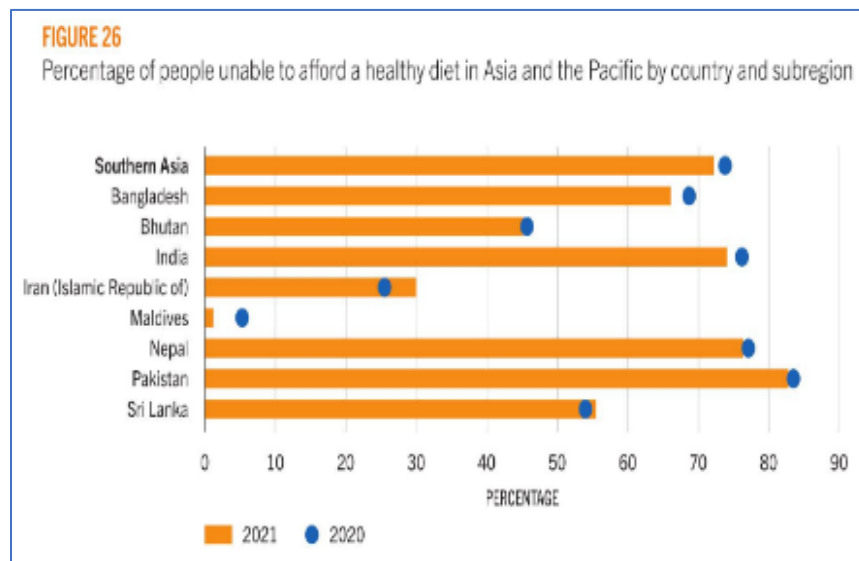
2024 Rank	Institution	Country/Territory
1	University of Toronto	Canada
2	University of California, Berkeley (UCB)	United States
3	The University of Manchester	United Kingdom
4	University of British Columbia	Canada
5	The University of Auckland	New Zealand
6	Imperial College London	United Kingdom
7	The University of Sydney	Australia
8	Lund University	Sweden
9	The University of Melbourne	Australia
10	Western University	Canada

Climate Change Performance Index (CCPI) 2024

- ❖ India has been ranked seventh in climate performance during 2022.
- ❖ But the country is effectively fourth as no one has occupied the first three ranks in the 'very high' performance category.
- ❖ Denmark retained the top spot (4th) with a score of 75.59 per cent.
- ❖ Estonia and the Philippines occupied the second and third ranks respectively, with 72.07 and 70.70.
- ❖ India followed closely with 70.25 per cent.
- ❖ Saudi Arabia was at the bottom — 67th — in the performance list.
- ❖ The COP 28 host country, United Arab Emirates occupied the 65th position.



Regional Overview of Food Security and Nutrition 2023



- ❖ The Food and Agriculture Organisation (FAO) of the United Nations launched the Regional Overview of Food Security and Nutrition 2023: Statistics and Trends.
- ❖ 74.1% of Indians were unable to afford a healthy diet in 2021.
- ❖ In 2020, the percentage was 76.2.
- ❖ In Pakistan, the figure is 82.2% and in Bangladesh, 66.1% of the population faced difficulties in finding healthy food.

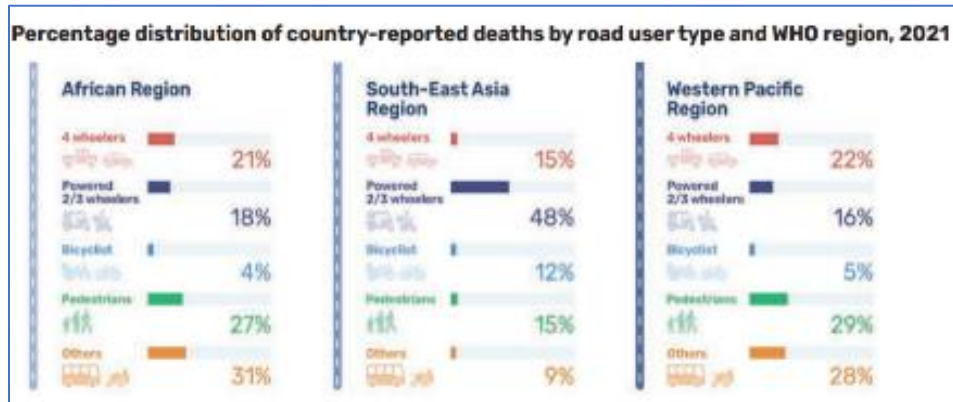
- ❖ Rising food costs, if not matched by rising income, will lead to more people unable to afford a healthy diet.
- ❖ The report said 16.6% of the country’s population is undernourished.
- ❖ 31.7% of children of the country under five years of age suffered with stunted growth.
- ❖ For wasting (low weight for height), India recorded the highest rate in the region with 18.7% children under five years of age facing this major health problem.
- ❖ The report noted that 2.8% of the children below five years were overweight.
- ❖ 53% of the country’s women aged between 15 to 49 had anaemia, which was the largest prevalence rate in the region in 2019.
- ❖ On exclusive breastfeeding among infants 0–5 months of age, India has improved the prevalence with a percentage of 63.7%.
- ❖ This is higher than the world prevalence – 47.7%.
- ❖ India has the highest prevalence of low birthweight in the region (27.4%), followed by Bangladesh and Nepal.

Africa Regional Overview of Food Security and Nutrition

	2000	2010	2014	2019	2020	2021	2022
World	12.7	8.6	7.7	7.9	8.9	9.3	9.2
Africa	22.4	15.1	15.3	17.0	18.7	19.4	19.7
Central Africa	35.6	22.5	21.9	24.8	27.6	28.5	29.1
Eastern Africa	38.4	23.8	23.9	26.7	28.1	28.4	28.5
Northern Africa	6.3	4.7	5.3	5.8	6.0	6.9	7.5
Southern Africa	5.7	7.2	8.2	8.3	9.5	10.0	11.1
Western Africa	15.0	10.8	10.6	11.0	13.7	14.5	14.6

- ❖ Nearly 282 million people in Africa, constituting about 20% of the population, experienced undernourishment in 2022.
- ❖ Eastern Africa tops the list with 134.6 million undernourished individuals, followed by Western Africa with 62.8 million, Central Africa with 57 million, Northern Africa with 19.5 million, and Southern Africa with 7.6 million.
- ❖ Around 868 million people in Africa were moderately or severely food-insecure, with 342 million severely food-insecure individuals.
- ❖ 77.5% of Africa’s population, approximately one billion individuals, could not afford a healthy diet in 2021.
- ❖ This contrasts sharply with the global rate of 42%.

Global Status Report on Road Safety 2023

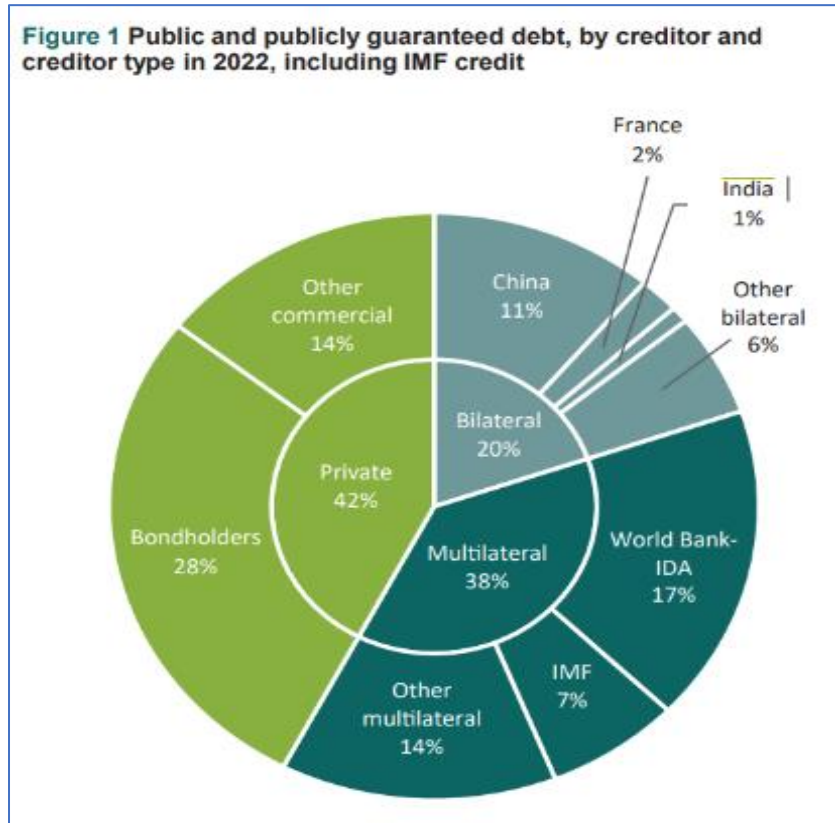


- ❖ Road traffic deaths fell by 5% to 1.19 million fatalities annually worldwide between 2010 and 2021.
- ❖ 108 UN member nations reporting a drop, but India, registered a 15% increase in fatalities.
- ❖ In India, the total number of road traffic fatalities went up from 1.34 lakh in 2010 to 1.54 lakh in 2021.
- ❖ Ten countries succeeded in reducing road traffic deaths by over 50%.
- ❖ Thirty-five more countries made notable progress, reducing road traffic deaths by 30% to 50%.
- ❖ This is the 12th leading cause of death when all ages are considered.
- ❖ The road fatality rate declining from 18 per 1 lakh people in 2010 to 15 per 1 lakh in 2021, which represents a 16% decline in the road traffic death rate since 2010.

International Debt Report

- ❖ The International Debt Report (IDR) is a longstanding annual publication of the World Bank
- ❖ It is featuring external debt statistics and analysis for the 122 countries.
- ❖ The debt-service payments - including principal and interest - rose 5% to a record \$443.5 billion in 2022.
- ❖ The 75 poorest countries' external public debt service payments reached a record \$88.9 billion in 2022 and would surge by 40% over the 2023-2024 period.
- ❖ Their interest payments alone had quadrupled since 2012 to \$23.6 billion.
- ❖ Private creditors received \$185 million more in principal repayments than they disbursed in loans.

- ❖ Overall, there was a net outflow of \$127.1 billion from low- and middle-income countries to bondholders.
- ❖ An average inflow of fund was \$202 billion from 2019-2021.
- ❖ The World Bank and other multilateral creditors, helped fill the gap, providing a record \$115 billion in new financing for developing countries in 2022.



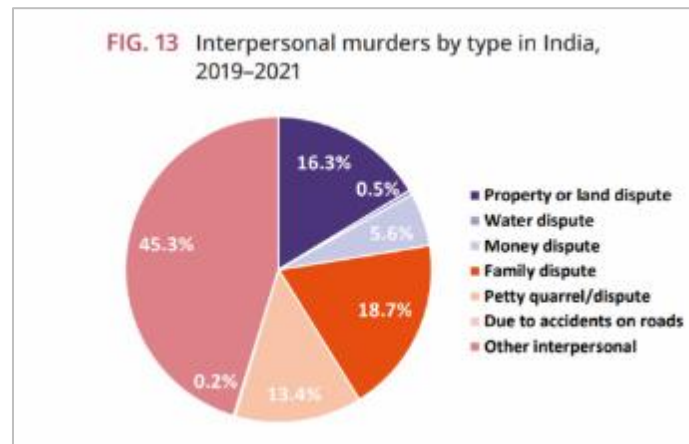
Mercer’s Quality of Living Index 2023

Ranking 2023	City	Location
1	VIENNA	AUSTRIA
2	ZURICH	SWITZERLAND
3	AUCKLAND	NEW ZEALAND
4	COPENHAGEN	DENMARK
5	GENEVA	SWITZERLAND

- ❖ Vienna (Austria), Zurich (Switzerland) and Vancouver (Canada) are the top three cities in that order.
- ❖ Hyderabad ranked 153rd and Bengaluru attained the 156th spot.
- ❖ Pune (154) has the second best 'quality of life' in India after Hyderabad.
- ❖ The last of these rankings were published in 2019 where Pune and Hyderabad both shared the 143rd position.

Global Study on Homicide Report 2023

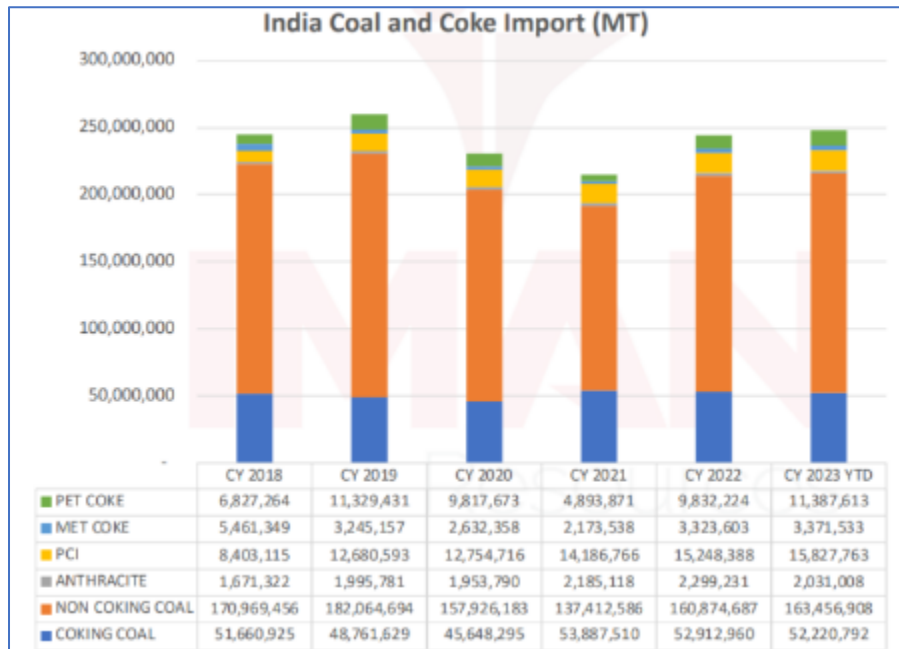
- ❖ The United Nations Office on Drugs and Crime (UNODC) has released its Global Study on Homicide Report 2023.
- ❖ One in every five murders occurred in India between 2019-21 is due to water-related conflicts.
- ❖ Southern Asia, sub-Saharan Africa, and Central America have reported most such incidents.
- ❖ Nearly 20 percent of all interpersonal murders recorded in India in the period 2019–2021 can be attributed to conflict over water.
- ❖ As per National Crime Records Bureau report 2020, at least 232 Indians lost their lives in conflicts related to water in the period of 2017-2019.



Coking coal import 2023

- ❖ India's coking coal imports are at a five-year high for the April-November period (11 months) of this fiscal at 38.14 million tonnes (mt).
- ❖ Imports were slightly higher on a Y-o-Y basis with nearly 38.12 mt of shipments coming in for the comparative period last year.

- ❖ Australia continues to be dominant supplier, accounting for 60 per cent of the shipments.
- ❖ Russia is the third largest supplier replacing countries such as Canada and Mozambique.



STATES

Transplant Games

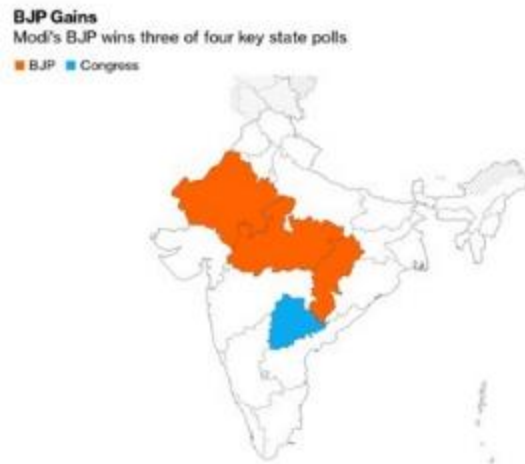
- ❖ For the 1st time, Kerala is organizing Transplant Games.
- ❖ It is international multi-sport events that take place every two years.
- ❖ It is a competitive sporting event for organ transplant recipients and donors.
- ❖ The WTGF organizes the World Transplant Games (WTG).
- ❖ The World Transplant Games Federation (WTGF) is a non-profit organization based in the United Kingdom.

Revanth Reddy

- ❖ The Congress central leadership has named Telangana party chief A. Revanth Reddy as its choice of Chief Minister of the State.

- ❖ He is set to become the first Congress Chief Minister of the state since its formation in 2014.
- ❖ He has been appointed as the leader of the Congress Legislature Party (CLP).

State Elections 2023



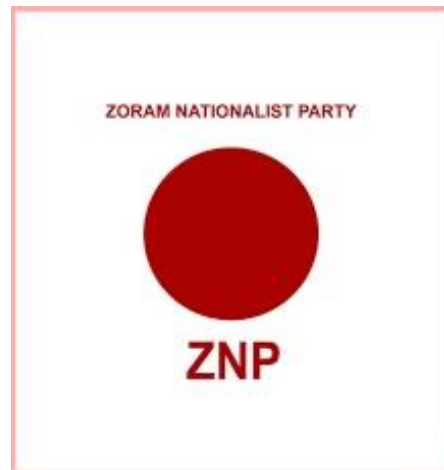
- ❖ BJP wins three of four state polls.
- ❖ It wrests control of Chhattisgarh and Rajasthan from the Congress and wins record fifth term in Madhya Pradesh.
- ❖ The Congress ended the Bharat Rashtra Samiti's (BRS) nine-year rule under Chandra Sekar Rao.
- ❖ BRS was formerly known as the Telangana Rashtra Samithi (TRS).

GI tags in Uttarakhand

- ❖ For the first time, 18 products of Uttarakhand have got GI tag together in a single day.
- ❖ This is the first state in India in this kind.
- ❖ GI tag is provided to local products by the GI Registry Wing of the Department for Promotion of Industry and Internal Trade (DPIIT).
- ❖ These products got GI tag: Berinag Tea, Manduwa, Jhangora, Gahat Dal, Red Rice, Black Bhatt, Malta, Amaranth (Ramdana), Lakhauri Chilli of Almora, Toor Dal, Buransh Juice, Nettle (Kandali) Nettle Fiber, Nainital Candle, Rangwali Pichhoda, Litchi of Ramnagar, Peach of Nainital, Chamoli mask, Uttarakhand wood art.
- ❖ These products have already got GI tag: Tejpatta, Basmati Rice, Bhotiya Dan, Aipan Kala, Chiura Oil, Munsiyari White Rajma, Ringal Craft, Tamra and Thulma.



New Mizoram CM



- ❖ Lalduhoma takes oath as new chief minister of Mizoram.
- ❖ The Zoram Nationalist Party emerged victorious in the 2023 Mizoram assembly elections (40 seats).
- ❖ It was registered as a political party only in 2019 with the symbol of Sun without Rays.

Total Fertility Rate – Kerala

- ❖ Kerala is the only State in the country with high total fertility rate among educated women.
- ❖ This is revealed by the Sample Registration System Statistical Report 2020.
- ❖ Thus, Kerala breaks the general assumption that educated women have fewer children than uneducated women.

- ❖ The rate of fertility is 0.2 among the illiterates compared to the fertility rate of 1.5 among 'literate' women.
- ❖ The total fertility rate of Kerala in both categories is 1.8.
- ❖ At the national level, the total fertility rate for women with educational status 'illiterate' is 3.1, much higher than the 'literate' group (1.9).
- ❖ The Total Fertility Rate (TFR) is the average number of children born to a woman during her reproductive years (15-49 years).

INDICATOR	SRS 2014	SRS 2019	SRS 2020
Crude Birth Rate (CBR)	21.0	19.7	19.5
Total Fertility Rate	2.3	2.1	2.0
Early Neonatal Mortality Rate (ENMR) – 0-7 days	20	16	15
Neonatal Mortality Rate (NMR)	26	22	20
Infant Mortality Rate (IMR)	39	30	28
Under 5 Mortality Rate (USMR)	45	35	32

Chhattisgarh's New Chief Minister

- ❖ Vishnu Deo Sai (59) was chosen as the new Chief Minister of Chhattisgarh Assembly.
- ❖ He is a four-time MP, three-time MLA, and had been the State BJP president twice.
- ❖ His party (BJP) won 54 seats in the 90-member Assembly in the recently held assembly election.

4E Wave movement

- ❖ 4E Wave, a Jammu student-led National Movement for Energy Conservation, was launched recently.
- ❖ The movement strives to promote sustainable practices and instil a sense of responsibility in individuals and communities to save energy.
- ❖ 4E Wave encapsulates four key elements:
 - Eco-friendliness: Promoting energy-saving practices that are environmentally friendly
 - Economy: Emphasizing energy-saving solutions that lead to economic benefits for individuals and communities

- Education: Focusing on educating the public about energy- saving methods and their importance
- Empowerment: Empowering individuals and communities to take active roles in conserving energy



Mohan Yadhav - Madhya Pradesh CM

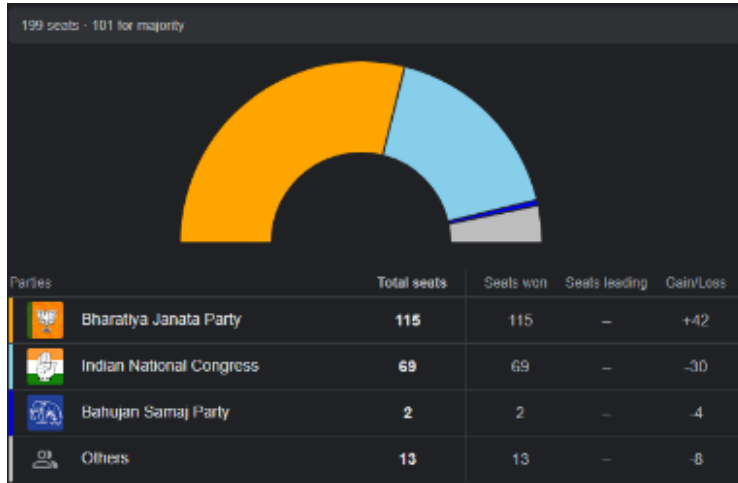
- ❖ Mohan Yadhav has been announced as the new CM of Madhya Pradesh.
- ❖ His party (BJP) won 163 seats in the 230-member assembly.
- ❖ The state will have two deputy chief ministers - Rajendra Shukla and Jagdish Devda.
- ❖ Mohan Yadav is an OBC leader and three-time BJP MLA from Ujjain South.
- ❖ He has previously served as higher education minister of Madhya Pradesh.

24th Hornbill festival

- ❖ The ten-day long 24th Hornbill Festival held at the heritage village of Kisama, Nagaland.
- ❖ The State's 16 major tribes come together to celebrate their culture, heritage at the Hornbill Festival.
- ❖ The festival that began in 2000 is named after the hornbill.
- ❖ It is a culturally significant bird that symbolises fidelity, beauty and grace in Naga folklore and ritual.
- ❖ The state has 16 districts and 17 tribes in the State, and each is distinct from the other.
- ❖ Nagaland is known as the land of festivals, and the Hornbill festival is referred to as the festival of festivals.

- ❖ Visitors of festival who are not from Nagaland should obtain an inner line permit from the local Government.

New Chief Minister of Rajasthan



- ❖ Bhajan Lal Sharma is selected as the new chief minister of Rajasthan.
- ❖ Diya Kumari and Prem Chand Bairwa named as Sharma's deputy chief ministers.
- ❖ Vasudev Devnani will be the new Rajasthan Assembly Speaker.
- ❖ Bhajan Lal Sharma is the first-time MLA from the Sanganer assembly constituency.

Breeding centre in Banni grassland

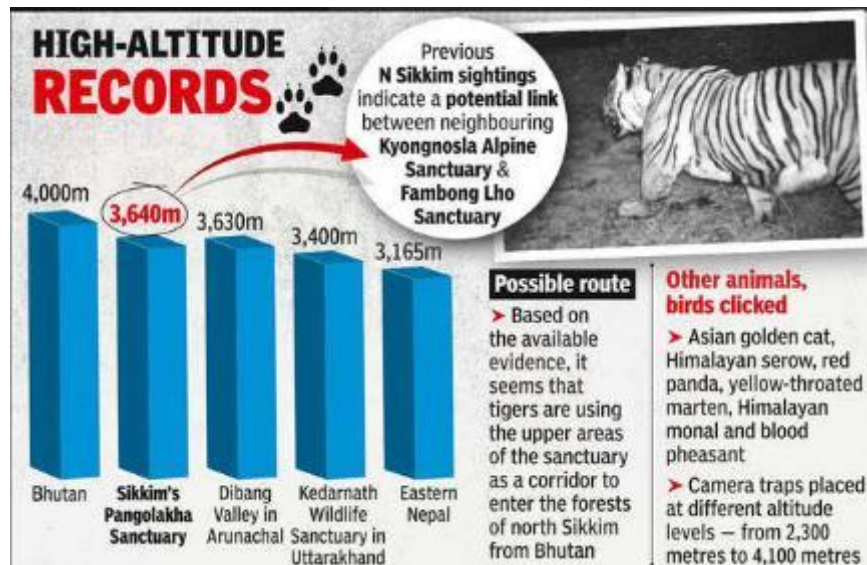
- Spread over 3,000 sq km, Banni, Asia's largest grassland, is a reserve forest
- Around 48 villages, populated by around 8,000 families, are part of the Banni grassland
- Around 1 lakh animals graze on the grassland
- Out of the 8,760 hectares of encroached land in Banni, 540 hectares land cleared so far

HOME TO RICH FLORA AND FAUNA: The Banni area consists of two ecosystems – wetlands and grasslands – in juxtaposition. Banni falls under the Dichanthium-Cenchrus Lasiurus type of grass cover. These grasslands are home to a rich array of flora and fauna including 192 species of plants, 262 species of birds, several species of mammals, reptiles and amphibians. Traditionally, Banni grasslands were managed following a system of rotational grazing.

- ❖ Gujarat had prepared a project to set up a breeding centre of cheetahs in Banni grassland.
- ❖ Spread over 2,500 sq km in Gujarat's Kutch district, Banni is among the finest and largest grasslands in India.
- ❖ A protected forest is known for the coveted Banni breed of buffaloes.
- ❖ Besides having 40 species of grass and 99 species of flowering plants, It also supports 273 bird species.

Tiger in Pangolakha Wildlife Sanctuary

- ❖ Pangolakha Wildlife reserve of Sikkim have captured a tiger at an elevation of 3640 metres.
- ❖ This is the highest elevation in India where tigers have been spotted
- ❖ Before this, the highest altitude where tigers have been spotted in India was in Arunachal Pradesh at a height of 3,630m.
- ❖ In Bhutan, tigers have been found at an elevation of more than 4,000m.



Food adulteration cases

- ❖ Hyderabad has ranked first in the country for food adulteration cases, according to the data released by the National Crime Records Bureau (NCRB).
- ❖ Telangana stands first, closely followed by Andhra Pradesh.
- ❖ In 2022, a total of 291 cases of food adulteration were reported across 19 major cities in India.
- ❖ Out of these cases, a staggering 246 were reported solely in Hyderabad.

Liquor introduction in Manipur

- ❖ The Manipur cabinet has legalized the sale and consumption of liquor after 30 years in the state.
- ❖ It approved the manufacture, production, possession, export, import, transport, purchase, sale, and consumption of liquor.
- ❖ It also established the Manipur State Beverages Corporation Limited (MSBCL).
- ❖ This decision comes in the midst of an ongoing ethnic conflict and a campaign against drug and alcohol abuse.
- ❖ The state government expects to generate an annual revenue of around Rs 600-700 crore from this legalization.
- ❖ Manipur had enacted the 'Manipur Liquor Prohibition Act' in 1991 and partially lifted the prohibition last year.
- ❖ It gave exemptions for scheduled caste and scheduled tribe communities for brewing liquor under their traditional systems and customary laws.



Local Resident of Jharkhand Bill

- ❖ The Jharkhand Assembly ratified the 'Local Resident of Jharkhand Bill', which had been returned twice since November 2022.
- ❖ It would keep 1932 as the cut-off year for 'proof of land records' for defining a local.
- ❖ Under the Bill, any person whose name or ancestors' name had been recorded in the khatiyani or survey of 1932 or before will be termed a local.
- ❖ In the case of landless persons, local persons shall be identified by the Gram Sabhas based on their culture, local customs, and tradition, among others.
- ❖ Similar policy brought up in 2002, but it was struck down by the courts.

<p>Jharkhand Definition of Local Persons and for Extending the Consequential Social, Cultural and Other Benefits to such Local Persons Bill, 2022</p> <p>➤ Local person shall mean domicile of Jharkhand, who is an Indian citizen and resides within the territorial and geographical limits of Jharkhand and he/she or his/her ancestor(s) name is recorded in the survey/khatiyani of 1932 or before</p>	<p>KEY TAKEAWAYS</p> <p>➤ In case landless persons or whose ancestors resided before 1932 but their land record is missing or illegible and they are unable to produce land record, the local gram sabha will be empowered to identify the locals</p> <p>Both the Acts shall take effect after it is included in the ninth schedule of the constitution of India</p>
--	---

Black Tigers in India

- ❖ There are 10 black tigers (melanistic tigers) in India and all are found exclusively in Odisha's Simlipal tiger reserve.
- ❖ As per the 2022 cycle of the All-India Tiger Estimation, 16 individuals were recorded at Simlipal Tiger Reserve, out of which 10 were melanistic.
- ❖ Based on genetic composition, the Simlipal Tiger Reserve has been identified as a distinct genetic cluster for conservation.



India's first-ever gyrocopter safari

- ❖ Uttarakhand is all set to launch India's first-ever gyrocopter safari by the year's end.
- ❖ It aims to redefine the concept of adventure tourism in the state.
- ❖ The first gyrocopter trial flight was successfully completed at Bairagi Camp,
- ❖ A gyrocopter is distinguished by the absence of an engine turning the rotors, and resembles a small helicopter.



India's First AI City

- ❖ Uttar Pradesh is planning to build the country's first AI city in Lucknow.
- ❖ This city is intended to accommodate and foster the AI ecosystem.
- ❖ The AI city aims to serve as a breeding ground for innovative ideas and the development of future professionals.
- ❖ The AI Centre of Excellence, located in IIIT Lucknow, provides support to over 15 AI and Machine Learning start-ups.
- ❖ The global AI market was valued at \$137 Bn in 2022 and is expected to witness a compound annual growth rate of 37.3% from 2023 to 2030.

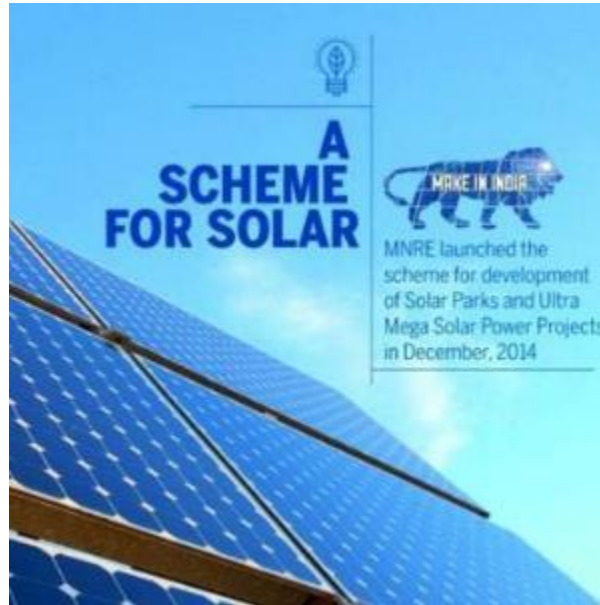
Most preferred State to work

- ❖ Kerala has emerged the most preferred State to work in the India Skills Report 2024.
- ❖ Kochi and Thiruvananthapuram have come second and fourth respectively among cities where both men and women prefer to work regardless of their age.
- ❖ Kochi is the first among the top 10 cities where most women prefer to work.
- ❖ Kerala is the second state with the most employable resources among the 18-21 age group.

Solar Park scheme

- ❖ Two states – Rajasthan and Andhra Pradesh – have deployed higher capacities through the solar park scheme.
- ❖ The Scheme for “Development of Solar Parks and Ultra Mega Solar Power Projects” was rolled out in December 2014 with an aggregate capacity of 20,000 MW.

- ❖ Further, the capacity of the Solar Park Scheme was enhanced to 40,000 MW in March 2017 to set up at least 50 Solar Parks.
- ❖ The timeline of the scheme is up to 2023-24.
- ❖ Of the 10,401 MW capacity, Rajasthan has so far commissioned 3065 MW of capacity, while Andhra Pradesh has commissioned 3050 MW.
- ❖ Karnataka and Madhya Pradesh have commissioned 2000 MW and 1000 MW capacity respectively.



PERSONALITIES, AWARDS AND EVENTS

National Metallurgist Award 2022

- ❖ National Metallurgist Award (NMA) 2022 was awarded by the Union Ministry of Steel.
- ❖ Five distinguished metallurgists were being conferred with the coveted NMA 2022 in five categories.
- ❖ The award winners
 - Dr Kamachi Mudali Uthandi - Lifetime Achievement Award
 - Dr Debashish Bhattacharjee - National Metallurgist Award
 - Dr Rameshwar Sah - R&D in Iron & Steel Sector
 - Dr Niloy Kundu - Young Metallurgist (Environment) Award
 - Agilan Muthumanickam - Award Young Metallurgist (Metal Science) Award

Nansen Award

- ❖ Established in 1954, the UNHCR Nansen Refugee Award honours individuals, groups and organizations, as well as internally displaced and stateless people.
- ❖ UNHCR, the UN Refugee Agency, announced that Abdullahi Mire will be the UNHCR Nansen Refugee Award's 2023 global laureate.
- ❖ Mire is a former refugee and journalist who has championed the right to education while putting 100,000 books in the hands of refugee children in Kenya.
- ❖ He found work in Kenya as a journalist and set up the Refugee Youth Education HubLink.
- ❖ It is an external, refugee-led organization.

National Awards 2023 for the Empowerment of Persons with Disabilities

- ❖ President Droupadi Murmu bestowed these National Awards upon 21 individuals and 9 institutions on the International Day of Persons with Disabilities 2023 (December 3).
- ❖ She declared the new parliament building as accessible, marking it as a symbol of inclusivity and empathy.
- ❖ Amazon India wins this prestigious National Award.
- ❖ Deepa Mallick and Sheetal Devi were acknowledged for their exceptional achievements.
- ❖ Sheetal Devi, at just 16, secured three medals, including two gold, at this year's Asian Paralympic Games, showcasing the incredible potential of women with disabilities.

'Hump WWII' Museum

- ❖ It is a museum dedicated to the fallen airmen of the Allied forces during World War II.
- ❖ It was inaugurated in Pasighat, Arunachal Pradesh.
- ❖ It stands as a tribute to the aviators who navigated the perilous air route between north-eastern Assam and Yunnan in China, nicknamed 'The Hump.'
- ❖ The air route earned its moniker due to the formidable challenges faced by Allied pilots flying from airfields in Assam to those in Yunnan.
- ❖ The Hump air route traverses through Assam, Arunachal Pradesh, Tibet, Myanmar and Yunnan (China).
- ❖ It was carried out between 1942 to 1945.

- ❖ It became the stage for one of the most significant airlifts in aviation history, undertaken by the US-led Allied forces.

Forbes Asia Heroes of Philanthropy List

- ❖ Three prominent Indian business leaders – Nandan Nilekani, KP Singh and Nikhil Kamath, have earned a coveted spot on the 17th edition of Forbes Asia's Heroes of Philanthropy list.
- ❖ Nandan Nilekani is the co-founder and chairman of the Infosys.
- ❖ KP Singh is the chairman at DLF.
- ❖ Nikhil kamat is the co-founder of Zerodha.

Tourism awards 2024

- ❖ Ministry of Tourism, Government of India, has announced the National Best Tourism Village Competition 2024 and the National Best Rural Homestay Competition 2024.
- ❖ This initiative is part of the comprehensive National Strategy and Roadmap for the Development of Rural Tourism in India.

VR Lalithambika – Kerala

- ❖ She is a distinguished scientist and former Director of the Human Spaceflight Programme at the Indian Space Research Organisation (ISRO).
- ❖ She was honored with the prestigious 'Légion d'Honneur' in France.
- ❖ She is the second ISRO scientist after former ISRO chairman A S Kiran Kumar to be awarded the Legion d'Honneur of France.
- ❖ She played a pivotal role in fostering collaboration between the French National Space Agency CNES and ISRO.

Suganthy Sundararaj

- ❖ Suganthy Sundararaj, Regional Head of PR at Apollo Hospitals, receives Public Relations Society of India (PRSI) National Award for Outstanding Contributions to PRSI and the industry.
- ❖ She received the Award at the International Public Relations Festival held at New Delhi.
- ❖ The theme of this year's festival is 'G20: Showcasing Indian Values and The Emerging India to the World: Opportunities for Public Relations'.

India Internet Governance Forum 2023

- ❖ It is a multi-stakeholder platform bringing together representatives from various groups to discuss public policy issues related to the Internet.
- ❖ Established in 2021, it is an initiative associated with the UN Internet Governance Forum
- ❖ It held in new Delhi under the theme of “Moving Forward – Calibrating Bharat’s Digital Agenda”.

ISSA Vision Zero 2023 Award



- ❖ The Employees’ State Insurance Corporation (ESIC) bagged the “International Social Security Association’s ISSA Vision Zero 2023” Award.
- ❖ It was given in the recently held 23rd World Congress on Safety and Health at Work in Sydney, Australia.
- ❖ International Social Security Association was founded in 1927 under the auspices of the International Labour Organization.
- ❖ Its headquarters is at Geneva, Switzerland
- ❖ ESIC is a statutory corporate body set up under the ESI Act 1948.

Safeena Husain

- ❖ She is the founder of ‘Educate Girls’, a NGO.
- ❖ She has been awarded the prestigious WISE Prize for Education.

- ❖ The prize was awarded by the NGO “Qatar Foundation” at the 11th Edition of the World Innovation Summit for Education (WISE) Summit in Doha, Qatar.
- ❖ It is one of the most prestigious awards in the field of education.
- ❖ She is the second Indian to receive this award.
- ❖ 'Pratham' co-founder Madhav Chavan was the first recipient of this award in 2012.

4th edition of AIGIF in Malaysia

- ❖ The 4th edition of the ASEAN India Grassroots Innovation Forum (AIGIF) was hosted by Malaysia.
- ❖ The AIGIF serves as an annual platform fostering collaboration between India and ASEAN Member States in Science, Technology and Innovation (STI).
- ❖ Mr. Dipak Bharali, hailing from Sualkuchi, Kamrup, Assam, secured the 1st prize for his innovation, the Weft Insertion Device.
- ❖ Mr. Sunil Shinde, based in Jalna, Maharashtra, claimed the 3rd prize for his Silkworm Breeding Net Folding Machine.
- ❖ Ms. Aanchal Aggarwal from Delhi secured the 3rd prize in the student innovation category for her creation, Parkinson Lathi.

54th International Film Festival - Goa

- ❖ The International Film Festival of India (IFFI), founded in 1952, is one of the film festivals in Asia, annually held at Goa.
- ❖ French, British and Greek co-production Drift directed by Anthony Chen received the prestigious ICFT-UNESCO Gandhi Medal.
- ❖ Hollywood actor and producer Michael Douglas was honored with the prestigious Satyajit Ray Lifetime Achievement Award for Excellence in Cinema.
- ❖ Madhuri Dixit Nene was honored with the 'Special Recognition for Contribution to Bharatiya Cinema' award.
- ❖ 'Kantara' scripted history as it became the first Kannada film to win an award at IFFI.
- ❖ Kannada actor and filmmaker Rishab Shetty was honoured with the Special Jury Award for Kantara film.
- ❖ Endless Borders' movie wins the Golden Peacock award.
- ❖ Iranian actor Pouria Rahimi Sam bagged the Best Actor award for his role in 'Endless Borders'.

Award List

- Golden Peacock Best Film: 'Endless Borders'
- Best Actor-Male: Pouria Rahimi Sam for 'Endless Borders'
- Best Actor (Female): Melanie Thierry for 'Party of Fools'
- Best Director: Stephan Komandarev for 'Blaža's Lessons'
- Special Jury Award: Rishab Shetty For 'Kantara'
- Best Debutant Director: Reger Azad Kaya for his Syrian-Arab Republic film 'When the Seedlings Grow'
- Best Web Series: 'Panchayat Season 2'
- Satyajit Ray Lifetime Achievement Award: Michael Douglas

12th edition of annual of REX CONCLiVE



- ❖ Rex Karmaveer Global Fellowship 2023-24 and Chakra Awards are presented at this event.
- ❖ The Rex Karmaveer Chakra Medal is a global civilian honour that recognises people who have made outstanding contributions to humanity.
- ❖ Recognizing outstanding contributions in activism, education, volunteering, and healthcare, the Karmaveer Chakra comes in 3 categories.
 - Gold Medal - Rumana Sinha Sehgal, the founder of Serendipity and Mentor at T-Hub.
 - Silver Medal - Maihursa Boro, a first-generation social entrepreneur and education entrepreneur from Assam.
 - Bronze Medal- Narayanappa, a marginal farmer of the Andhra Pradesh

2023 REACH Game Changing Innovator award

- ❖ Dr. Atul Shah, a plastic surgeon, has been honored with the 2023 REACH Game Changing Innovator award for his groundbreaking contribution to leprosy care.
- ❖ He used a simple surgery without the use of special equipment could tackle deformities of leprosy-affected patients.
- ❖ He also designed a 'self-care kit' to empower leprosy patients in managing foot ulcers, a common issue.
- ❖ This innovative solution has been integrated into the country's National Leprosy Eradication Programme (since 2007) and benefited 80,000 people across India.

Indira Gandhi Peace Prize 2023

- ❖ The Indira Gandhi Prize for Peace, Disarmament and Development for 2023 has been jointly awarded to Daniel Barenboim and Ali Abu Awwad.
- ❖ This is awarded for their efforts in bringing together the youth and peoples of Israel and the Arab World for a non-violent resolution of the Israel-Palestine conflict.
- ❖ Barenboim conferred several awards, including the Great Cross of Merit of the Federal Republic of Germany, Prince of Asturias Awards, and the Commander of the Legion of Honour.
- ❖ In 2014, Mr. Awwad co-founded a local Palestinian-Israeli initiative called Roots, promoting understanding, non-violence and transformation.

Governing Council Of UNIDROIT

- ❖ India's Uma Sekhar was elected to the governing council of the Rome-based International Institute for the Unification of Private Law (UNIDROIT).
- ❖ It is an independent intergovernmental organisation headquartered in Rome, Italy.
- ❖ It is dealing with various legal issues including studying needs and methods for modernising commercial and private laws.
- ❖ The Governing Council consists of 25 positions which are held by distinguished legal experts.

2023 Falling Walls Prize for Science and Innovation Management

- ❖ Abdoulaye Diabate was awarded the 2023 Falling Walls Prize for Science and Innovation Management for his research work.

- ❖ He developed an innovative technique that can wipe out malaria-causing female mosquitoes by altering their genes.
- ❖ Malaria is generally transmitted through the bite of female Anopheles mosquitoes.
- ❖ Under gene drive technology, female mosquitoes are prevented from producing new female offspring by releasing genetically modified male mosquitoes in the environment.
- ❖ This would lead to the depletion of female mosquitoes, thus bringing down malaria causes throughout the continent.
- ❖ Africa shoulders the world's largest malaria burden, with the continent constituting 96 per cent of the total 619,000 deaths worldwide in 2021.
- ❖ According to the WHO's latest data, of those 96 per cent, 80 per cent of deaths occurred in children aged under five.



Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah

- ❖ Kuwait's ruling emir Sheikh Nawaf Al Ahmad Al Sabah passed away recently.
- ❖ Crown Prince Sheikh Meshal al-Ahmad al-Sabah, was named as Sheikh Nawaf's successor.
- ❖ India declared state mourning across the country on December 17 as a mark of respect to Kuwait's Amir.

Sahitya Akademi Awards for 2023

- ❖ Tamil writer Devibharathi's novel Neervazhi Padooum, has won the Sahitya Akademi award for 2023.
- ❖ It is depicting the life of the Kudi Navithar, the community barbers in the Kongu region of Tamil Nadu

- ❖ Neervazhi Padoom is a line from Purananuru poem, a Sangam age literary work.
- ❖ The lines Neervazhi Padoom “punaipol aaruyir muraivazhi padoom” translates to a float that sails on the way of the water, indicating that life travels on the path chalked out by fate.
- ❖ Telugu writer T. Patanjali Sastry and Malayalam litterateur E.V. Ramakrishnan were among those named for the Sahitya Akademi Awards for the year 2023.
- ❖ Nine books of poetry, six novels, five short story collections, three essays and one literary study have won the Sahitya Akademi Awards this year.
- ❖ The Sahitya Akademi, founded on March 12, 1954 is an autonomous body under the Union Culture Ministry.



United Earth Amazonia prize

- ❖ Marcus Nobel emphasized that the winners of Green Nobel, 2023 will be awarded in June 2024 in the Opera House in Manaus, Brazil.
- ❖ United Earth Amazonia Prize is a "Green Nobel" award that recognizes environmental work in the Amazon rainforest.
- ❖ The prize will be awarded annually to spotlight projects that are helping preserve and sustain the rainforest and protect its biodiversity.
- ❖ It is an encouraging innovative approaches and sustainable practices that can be replicated worldwide.
- ❖ It is an independent environmental accolade that is unrelated to the Nobel Foundation.
- ❖ The 2023 prize winners are:
 - Alessandra Korap Munduruku from Brazil
 - Chilekwa Mumba from Zambia
 - Delima Silalahi from Indonesia
 - Diane Wilson from the U.S.A
 - Tero Mustonen from Finland
 - Zafer Kizilkaya from Turkey

M.S. Viraraghavan

- ❖ M.S. Viraraghavan, 86, the rosarian of Kodaikanal, passed away recently.
- ❖ He is considered one of the India's most creative and productive rose breeders.
- ❖ He had co-authored a book titled *Roses in the Fire of Spring*, along with his wife Girija about rose hybrids created by them for over three decades.

UNESCO's 2023 Prix Versailles

- ❖ Bengaluru's Kempegowda International Airport has achieved a prestigious recognition at UNESCO's 2023 Prix Versailles.
- ❖ Bengaluru airport's Terminal 2 (T2) has earned distinction as one of the 'World's most beautiful airports'.
- ❖ It secured the coveted 'World special prize for an interior 2023.'
- ❖ Terminal 2 was previously honored with the prestigious IGBC platinum certification by the Indian Green Building Council.



UNESCO Asia-Pacific Awards 2023

- ❖ Six heritage projects from India have secured prestigious spots among the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.
- ❖ The Rambagh Gate in Amritsar received the Award of Excellence.
- ❖ The Church of Epiphany in Gurugram, Haryana, David Sassoon Library and Reading Room in Mumbai, India; and Bikaner House in New Delhi earned the Award of Merit.
- ❖ The Karnikara Mandapam at Kunnamangalam Bhagawati Temple in Kerala and Pipal Haveli of Gurdaspur district in Punjab, was honoured for its sustainable development.

- ❖ Among the 12 recognised sites, five are from China, six from India, and one from Nepal.
- ❖ The jury evaluated a total of 48 projects from 8 countries and selected 12 for this prestigious honour.



DMDK founder Vijayakanth



- ❖ Vijayakanth, actor and the founder of Desiya Murpokku Dravida Kazhagam (DMDK) passed away recently.
- ❖ Vijayakanth made his debut through Inikkum Ilamai, and has since then gone on to do more than 150 movies in his career.
- ❖ In 2005, Vijayakanth formed his political party, Desiya Murpokku Dravida Kazhagam (DMDK) in Madurai.
- ❖ In the assembly election in 2006, a year after its launch, the DMDK got 8.4% votes.
- ❖ In the 2011 Assembly elections DMDK coming second, with 29 seats, leading party founder Vijayakanth to become the Leader of the Opposition.

SPORTS

13th Hockey India Senior Men National Championship 2023

- ❖ Hockey Punjab emerged victorious over Hockey Haryana to clinch the gold medal at the 13th Hockey India Senior Men National Championship 2023.
- ❖ The tournament was held at the Mayor Radhakrishnan Hockey Stadium in Chennai, Tamil Nadu.
- ❖ The Hockey Unit of Tamil Nadu secured the bronze medal, defeating Hockey Karnataka.

FIFA U-17 World Cup 2023

- ❖ Germany won this cup for the first time.
- ❖ It beat France in the final held at Indonesia.
- ❖ This was the first time that Indonesia hosted a FIFA tournament and the first time that the FIFA U-17 World Cup was held in Southeast Asia.

Khelo India Para Games 2023



- ❖ Anurag Singh Thakur, Union Minister of Youth Affairs and Sports, unveiled the logo and mascot for the first-ever Khelo India Para Games 2023.
- ❖ The first-ever Khelo India Para Games is scheduled to be held in New Delhi.
- ❖ The official logo and mascot, 'Ujjwala,' a sparrow, was revealed during the ceremony.
- ❖ Since its inception in 2018, Khelo India has successfully hosted 11 games.
- ❖ This includes 5 Khelo India Youth Games, 3 Khelo India University Games and 3 Khelo India Winter Games.

79th National Squash Championship – Chennai

- ❖ Anahat Singh (15) of Delhi becomes the second youngest to win the national squash championship title 2023 (women).
- ❖ Velevan Senthilkumar from Tamil Nadu won the Senior National Squash Championships 2023 in men's category.
- ❖ Joshna Chinappa from Chennai holds the record for being the youngest champion in India.
- ❖ She bagged the first of her record 19 national titles at the age of 14 in 2000.



Inter Command Ocean Sailing Race 2023

- ❖ The Indian Navy kicked off the second edition of the Inter Command Ocean Sailing Race 2023 at Naval Base, Kochi.
- ❖ The race is to be held from Kochi to Goa.
- ❖ It is organized by the Southern Naval Command under the aegis of the Indian Naval Sailing Association (INSA) based at Naval Headquarters, New Delhi.
- ❖ The race features four 40-footer Indian Naval Sailing Vessels (INSVs) named Bulbul, Neelkanth, Kadalpur, and Hariyal.
- ❖ This edition of the race is distinct as it includes a mixed crew comprising both men and women officers and sailors.
- ❖ It symbolizing gender neutrality and providing equal opportunity to all.

ITF World Champion

- ❖ Novak Djokovic and Aryna Sabalenka were named the ITF World Champions following their incredible 2023 tennis seasons.

- ❖ Djokovic, with an 8th ITF World Champion crown, the 24-time Major winner also broke the record for most ITF World Champion titles.
- ❖ Iga Swiatek was declared the WTA Player of the Year for 2023.
- ❖ Swiatek became only the sixth player to win the award in consecutive years since it was introduced in 1977.
- ❖ Serena Williams was the last to secure the accolade for multiple years on the trot, from 2012 to 2015.



Khelo India Para Games 2023

- ❖ On the first-ever Khelo India Para Games, Haryana bagged top honours with a total of 105 medals including 40 gold, 39 silver and 26 bronze medals.
- ❖ Finishing second was Uttar Pradesh, with a total of 62 medals, including 25 gold, 23 silver and 14 bronze.
- ❖ Tamil Nadu finished third with 20 gold, eight silver and 14 bronze medals.

KIPG 2023 medal winners					
Rank	State	Gold medals	Silver medals	Bronze medals	Total medals
1	Haryana	40	39	26	105
2	Uttar Pradesh	25	23	14	62
3	Tamil Nadu	20	8	14	42
4	Gujarat	15	22	20	57
5	Maharashtra	12	7	16	35

National Sports Awards 2023

- ❖ Ministry of Youth Affairs & Sports announced the National Sports Awards 2023.
- ❖ The Arjuna Award was confirmed for 26 sportspersons, including India pacer Mohammed Shami and archery's breakout star of 2023 Aditi Gopichand Swami.

- ❖ Major Dhyan Chand Khel Ratna Award for 2023 were given to Chirag Shetty and Satwik Sairaj Rankireddy (badminton).
- ❖ Five coaches have been named for the Dronacharya Award in the regular category and three in the lifetime category.
- ❖ Dronacharya Award (regular category) for outstanding coaches are Lalit Kumar (wrestling), RB Ramesh (chess), Mahaveer Prasad Saini (para-athletics), Shivendra Singh (hockey), Ganesh Prabhakar Devrukhkar (mallakhamb).
- ❖ Dronacharya Award (life-time category) for outstanding coaches are Jaskirat Singh Grewal (golf), Bhaskaran E (kabaddi), Jayanta Kumar Pushilal (table tennis).
- ❖ Dhyan Chand Award for lifetime achievement are Manjusha Kanwar (badminton), Vineet Kumar Sharma (hockey), Kavitha Selvaraj (kabaddi).

Sports awards in India	Awarded For
Major Dhyan Chand Khel Ratna Award	Awarded for outstanding performances in sports spanning over a period of four years.
Arjuna Award	Given out for consistent good performance over a period of four years.
Dronacharya Award	It is awarded to coaches for producing medal winners at prestigious international events.
Major Dhyan Chand Award	Presented for good performance and contributing towards the promotion of sports.
Maulana Abul Kalam Azad Trophy	Given to the university for top performance in inter-university tournaments over the last one year.
Rashtriya Khel Protsahan Puruskar	Awarded to organisations and individuals for playing a role in the area of sports promotion and development over the last three years.
Tenzing Norgay National Adventure Award	To recognise outstanding achievements in the field of adventure activities or sports on land, sea and air.

FIH Hockey Star Awards 2023

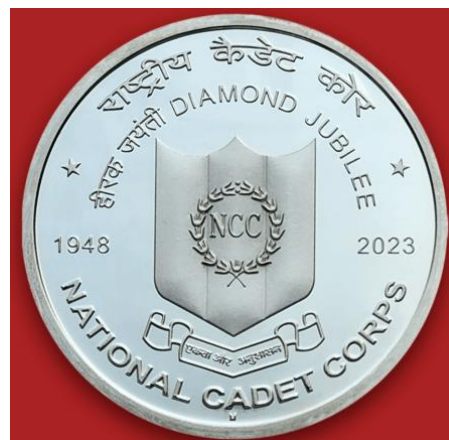
- ❖ India women's team captain Savita Punia and men's team vice-captain Hardik Singh have bagged FIH Hockey Star Awards 2023.
- ❖ Savita has won the women's goalkeeper of the year award for the third time in a row.
- ❖ Hardik has been named the men's player of the year.
- ❖ He was also awarded the Hockey India Balbir Singh Sr. Award for Player of the Year 2022.



IMPORTANT DAYS

National Cadet Corps (NCC) 2023 - 75th Anniversary

- ❖ The National Cadet Corps (NCC) celebrated its 75th anniversary on November 27, 2023.
- ❖ It is serving as the youth wing of the Indian Armed Forces; it operates from its headquarters in New Delhi.
- ❖ The NCC is a voluntary military cadet corps under the Union Ministry of Defence and is open to school and college students.
- ❖ The origin of NCC can be traced to the 'University Corps', which was created under the Indian Defence Act, 1917.
- ❖ In 1920, when the Indian Territorial Act was passed, the 'University Corps' was replaced by the University Training Corps (UTC).
- ❖ Subsequently, the National Cadet Corps Act was accepted by the Governor General and the NCC came into existence on 15 July, 1948.



World AIDS Day 2023 - December 01

- ❖ Since 1988, it aims to raise public awareness about Acquired Immuno Deficiency Syndrome.
- ❖ It is a pandemic disease cause due to infection Human Immunodeficiency Virus (HIV) which affects the human immune system.
- ❖ India has about 2.47 million people living with HIV with approximately 66,000 new cases recorded last year.
- ❖ On 1st December, WHO, together with communities and partners will commemorate World AIDS Day 2023, under the theme “Let communities lead”.

National Pollution Control Day 2023 - December 02

- ❖ Every year, National Pollution Control Day is observed on December 2.
- ❖ On December 2 and December 3, 1984, a harmful chemical – Methyl Isocyanate – along other chemicals got released from a pesticide plant, Union Carbide India Limited, in Bhopal, Madhya Pradesh.
- ❖ The MP state government declared 25000 people dead because of the exposure of harmful gases.
- ❖ National Pollution Control Day is celebrated to honour the people who lost their lives due to the unfortunate incident.
- ❖ The theme for National Pollution Control Day 2023 is “Sustainable Development for a Clean and Healthy Planet”.

International Day for the Abolition of Slavery 2023 - December 02

- ❖ Every year on December 2nd, the International Day for the Abolition of Slavery draws attention to slavery that still exists in the world.
- ❖ According to the United Nations, slavery traps over 40 million people around the world.
- ❖ On December 2, 1949, the UN adopted the Convention for the Suppression of the Traffic in Persons and the Exploitation of the Prostitution of Others.
- ❖ In 1985, a UN report of the Working Group on Slavery recommended the proclamation of World Day for the Abolition of Slavery on December 2nd.
- ❖ By 1995, the world came to know the day as International Day for the Abolition of Slavery.
- ❖ The theme for this year's International Day for the Abolition of Slavery is - Fighting slavery's legacy of racism through transformative education.

Nagaland Statehood Day 2023 - December 01

- ❖ Nagaland is jubilantly celebrating its 61st Statehood Day on December 1, 2023.
- ❖ This marks a significant milestone of the Nagas.
- ❖ It became the 16th state of the Union of India in 1963.

World Day of the Handicapped or International Day of Persons with Disabilities 2023 - December 03



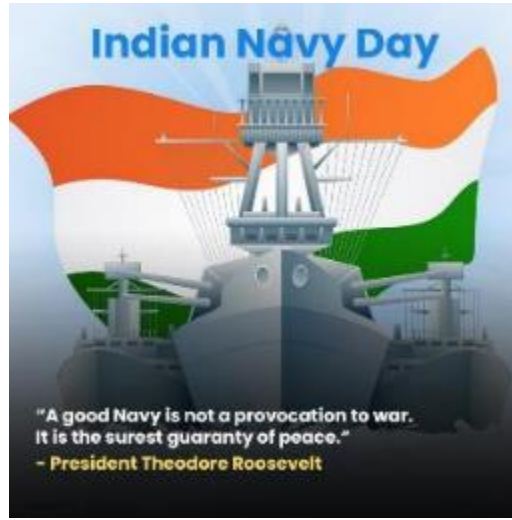
- ❖ It was proclaimed in 1992 by the United Nations General Assembly resolution.
- ❖ The observance of the Day aims to promote an understanding of disability issues and mobilize support for the dignity, rights and well-being of persons with disabilities.
- ❖ The theme of this year will be "United in action to rescue and achieve the SDGs for, with and by persons with disabilities".

World Computer Literacy Day 2023 - December 02

- ❖ This day was initiated by an Indian multinational corporation, NIIT, to mark its 20th anniversary.
- ❖ World Computer Literacy Day was first celebrated in 2001.
- ❖ It aims to increase computer literacy among people, especially women and children.

Indian Navy Day 2023 - December 04

- ❖ This day observed on December 4 every year to commemorate the launch of Operation Trident against Pakistan during the 1971 Indo-Pak War.
- ❖ The demonstration at Sindhudurg will involve the participation of 20 warships along with 40 aircraft, including the MiG 29K and LCA Navy fighter jets.
- ❖ The theme for this year is “Operational Efficiency, Readiness, and Mission Accomplishment in the Maritime Domain.”



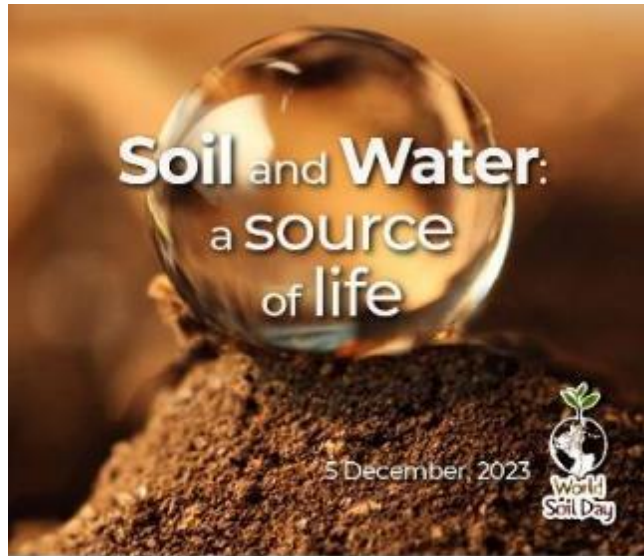
International Day of Banks 2023 - December 04

- ❖ In 2019, the General Assembly of the United Nations passed resolution, designating December 4 as International Banking Day.
- ❖ It gives importance to collective significance of banks for safeguarding the effective functioning of the global monetary and financial system.
- ❖ “Achieve sustainable development goals and improve the global financial architecture” is the theme for this year.

International Cheetah Day 2023 – December 04

- ❖ Cheetah is renowned as the fastest land animals and mammal on the Earth.
- ❖ The International Union for Conservation of Nature (IUCN) classifies cheetahs as vulnerable, with an estimated 7,000 individuals remaining in the wild.
- ❖ This date lies in the birthday of Khayam, a cheetah raised by Dr. Laurie Marker of USA.
- ❖ Khayam is a cheetah cub nurtured by Marker at Wildlife Safari in Oregon, USA.
- ❖ The dedication to cheetah conservation is highlighted by the establishment of the Cheetah Conservation Fund (CCF) in 1990.

World Soil Day 2023 – December 05



- ❖ The theme of this year is ‘Soil and Water, a Source of Life’.
- ❖ It traces back to the International Union of Soil Sciences (IUSS).
- ❖ IUSS recommended the establishment of an international day to celebrate soil in 2002.
- ❖ With leadership from the Kingdom of Thailand and support from the Food and Agriculture Organisation (FAO) within the Global Soil Partnership framework, World Soil Day emerged as a global awareness platform.
- ❖ The date of December 5 was chosen because it coincides with the birthday of Thailand's King Bhumibol Adulyadej.
- ❖ In June 2013, the FAO Conference endorsed World Soil Day and later approached the 68th United National General Assembly
- ❖ The Kunming-Montreal Global Biodiversity Framework is a plan for everyone to take urgent action to halt and reverse the loss of biodiversity loss.

International Volunteer Day 2023 – December 05

- ❖ It was established by the United Nations General Assembly in December 1985.
- ❖ The 2023 theme is “The Power of Collective Action: If Everyone Did”.
- ❖ It provides a unique opportunity for individuals, non-governmental organizations (NGOs), United Nations agencies, government authorities, and the private sector to celebrate, promote, and share the values of volunteerism.

UNCTAD ecommerce week 2023 – December 04 to 08

- ❖ It will take place at the International Conference Centre of Geneva (CICG).
- ❖ It was renamed eWeek to encompass all aspects of the evolving global digital landscape.
- ❖ The theme of this year will be "Shaping the future of the digital economy".

National Microwave Oven Day 2023 – December 06

- ❖ Percy Spencer, a self-taught American engineer, discovered a method for using microwaves to safely heat food in 1945.
- ❖ Unlike traditional cooking using bowls and utensils with fire, microwave ovens use electromagnetic radiation.
- ❖ A patent was filed by Raytheon on October 8, 1945, and the first microwave ovens were named the "Radarange."

Mahaparinirvan Diwas

- ❖ December 6 marks the Mahaparinirvan Diwas of Dr. B.R. Ambedkar.
- ❖ DR BR Ambedkar's death anniversary is observed annually on December 6.
- ❖ He breathed his last in Delhi in 1956.
- ❖ Parinirvana represents a fundamental concept in Buddhism.
- ❖ It is signifying the attainment of nirvana or liberation during one's lifetime and even after death.
- ❖ In Sanskrit, achieving nirvana posthumously or the release of the soul from the body after death is referred to as Parinirvana.
- ❖ The term "Parinibbana" in Pali is employed to convey the fulfilment of nirvana.

Armed Forces Flag Day 2023 – December 07

- ❖ On August 28, 1949, the Ministry of Defence announced that December 7 will be celebrated as Armed Forces Flag Day.
- ❖ It is to honour the martyrs and the men in uniform who valiantly fought & continue to fight on our borders to safeguard the country's honour.
- ❖ It is celebrated to collect funds for the betterment of the forces.

International Civil Aviation Day 2023 – December 07

- ❖ It commemorates the distinctive role and establishment of the International Civil Aviation Organization (ICAO) in 1944.

- ❖ ICAO is the part of United Nations Body.
- ❖ On December 7, 1994, to mark the 50th anniversary of the Chicago Convention, the ICAO observed the International Civil Aviation Day for the first time.
- ❖ For this year, the theme is “Advancing Innovation for Global Aviation Development”.

SAARC Charter Day 2023 - December 08



- ❖ The SAARC Charter signed on 08th December 1985 at the inaugural SAARC Summit in Dhaka marks the establishment of the SAARC.
- ❖ Since then, 08th December is observed as the SAARC Charter Day every year.
- ❖ It aims to promote awareness about SAARC and to enhance South Asian identity and solidarity within the region and beyond.
- ❖ The SAARC Charter was signed by the leaders of the Seven South Asian Countries - Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

International Anti Corruption Day 2023 - December 09

- ❖ It seeks to highlight the crucial link between anti-corruption and peace, security, and development.
- ❖ The United Nations General Assembly adopted the United Nations Convention against corruption on October 31, 2003.
- ❖ The observance of the day was first officially held on 9 December 2005.
- ❖ The theme of this year is ‘UNCAC at 20: Uniting the World Against Corruption.’

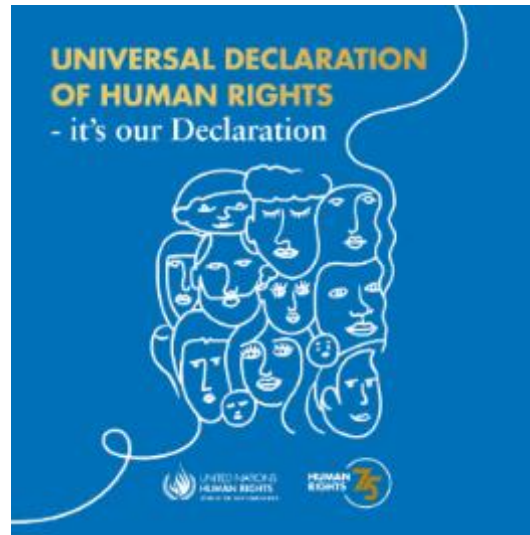
International Day of Commemoration and Dignity of the Victims of the Crime of Genocide 2023 - December 09

- ❖ United Nations General Assembly adopted the Convention on the Prevention and Punishment of the Crime of Genocide with the resolution dated 9 December 1948.

- ❖ The 1948 Genocide Convention codified for the first time the crime of genocide in international law.
- ❖ To date, 153 states have ratified the Convention.
- ❖ The theme of this year is “A Living Force in World Society: The Legacy of the 1948 Convention on the Prevention and Punishment of the Crime of Genocide”.

Human Rights Day 2023 - December 10

- ❖ This year marks the 75th anniversary of this day.
- ❖ It aims at promoting and celebrating the fundamental rights and freedoms every individual is entitled to, regardless of their gender, nationality, race, religion, or background.
- ❖ In 1948, the United Nations General Assembly adopted the Universal Declaration of Human Rights (UDHR).
- ❖ The theme for the 2023 is ‘Freedom, Equality and Justice for All.’



Nobel Prize Day 2023 - December 10

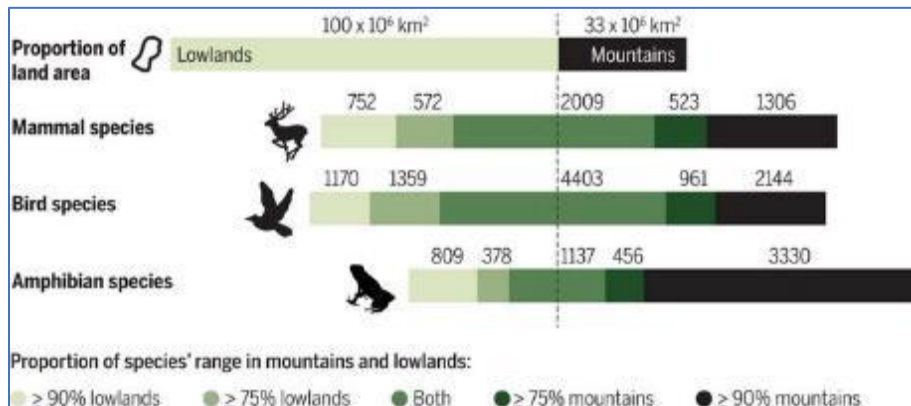
- ❖ This day marks the death anniversary of Alfred Nobel.
- ❖ He is popular for creating a series of award categories for achievements that helped humanity.
- ❖ The Nobel Prize is regarded as one of the most prestigious international awards.
- ❖ It is given to people who gave their best efforts in physics, chemistry, physiology or medicine, literature, and peace.



UNICEF Foundation Day 2023 - December 11

- ❖ The United Nations Children's Fund is a humanitarian organization established on December 11, 1946 under the aegis of the United Nations.
- ❖ It aims to protect the rights of every child across the world.
- ❖ UNICEF continued to use its original acronym UNICEF even after its full name was changed to United Nations Children's Fund in 1953.
- ❖ It is the biggest supplier of vaccines globally.
- ❖ Theme for This year is "For every child, every right."

International Mountain Day 2023 - December 11



- ❖ It aims to raise awareness about the importance of mountains and the need to restore their ecosystems.
- ❖ The day highlights the vital role mountains play in our lives and the need to protect them.
- ❖ This year, the focus is on activities that promote mountain resilience and adaptation to climate change.
- ❖ The theme for 2023 is “Restoring Mountain Ecosystems”.

Universal Health Coverage Day 2023 - December 12

- ❖ The core idea of Universal Health Coverage (UHC) is that everyone, regardless of their location or economic status, should have access to quality healthcare without facing financial burdens.
- ❖ On December 12, 2012, the UN General Assembly passed a resolution urging nations to accelerate their efforts towards achieving universal healthcare (UHC).
- ❖ In 2017, the United Nations officially declared this day.
- ❖ The theme for 2023 is Health for All: Time for action.

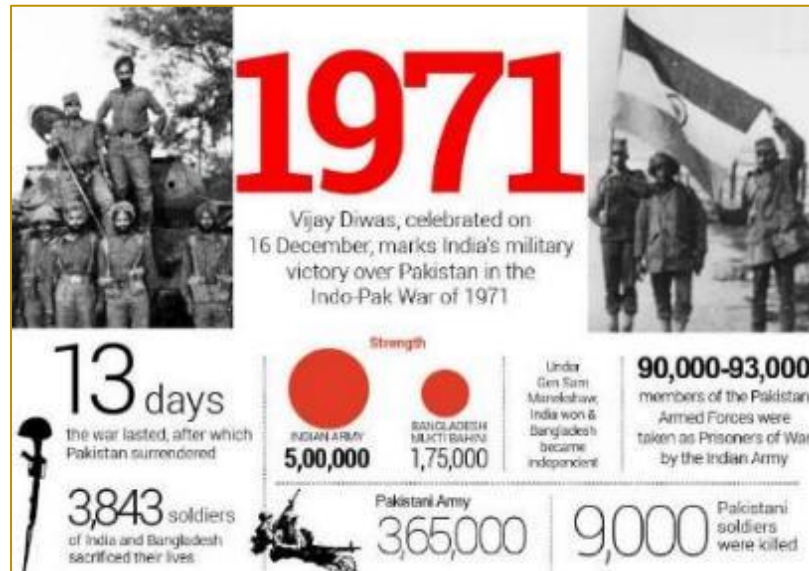
International Day of Neutrality 2023 - December 12

- ❖ This day is raising awareness levels in public about the value of neutrality in international relations.
- ❖ Neutrality is defined as a legal status which arises when the state decides not to take part in any armed conflict.
- ❖ Article 2 of the UN charter also permits the member states to settle their disputes by peaceful means.
- ❖ UN General Assembly declared this day on February 2, 2017.

National Energy Conservation Day 2023 - December 14

- ❖ This day aims to spread the message on the importance of conserving energy and to showcase the achievements of the nation in energy efficiency and conservation.
- ❖ On December 14, 1991, the National Energy Conservation Awards were given to the winners for the first time.
- ❖ The Bureau of Energy Efficiency is a statutory body that plays a key role in framing policies and strategies to reduce energy use.

Vijay Diwas 2023 - December 16



- ❖ This day honours the victory of the Indian armed forces over Pakistan in the 1971 war.
- ❖ It also pays tribute to the soldiers who sacrificed their lives for the country.
- ❖ The India-Pakistan war over the then East Pakistan started on December 3, 1971.
- ❖ India secured a resounding triumph over Pakistan on December 16, 1971
- ❖ It leading to the creation of Bangladesh from the former East Pakistan.
- ❖ Bangladesh also celebrates December 16 as 'Bijoy Dibos' or Victory Day.

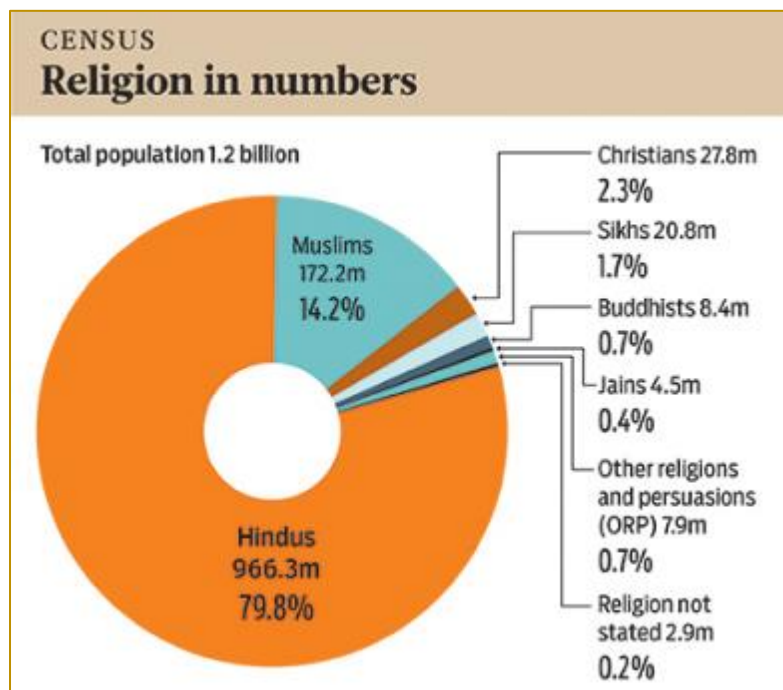
International Day to End Violence Against Sex Workers 2023 - December 17

- ❖ It was conceived as a memorial and vigil for the victims of the Green River Killer in Seattle, Washington, US.
- ❖ The day calls attention to hate crimes committed against sex workers worldwide, as well as the need to remove the social stigma and discrimination.
- ❖ The red umbrella is an important symbol for sex worker rights and is used for the events.

Minorities Rights Day in India 2023 - December 18

- ❖ The day aims to promote awareness about the importance of helping various minorities overcome the challenges they face.
- ❖ Minorities Rights Day was established in 1992 on December 18.

- ❖ On this day, UN adopted the Declaration of the rights of persons belonging to national or ethnic, religious, and linguistic minorities to protect and promote minority rights.
- ❖ As part of the adoption of the UN Declaration, India established the National Commission for Minorities (NCM).
- ❖ The NCM was established by the Central government under the National Commission for Minorities Act (1992).
- ❖ The government notified Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis) and Jains as minority communities.
- ❖ Theme of this year is 'Celebrating Diversity and Inclusion'.



International Migrants Day 2023 - December 18

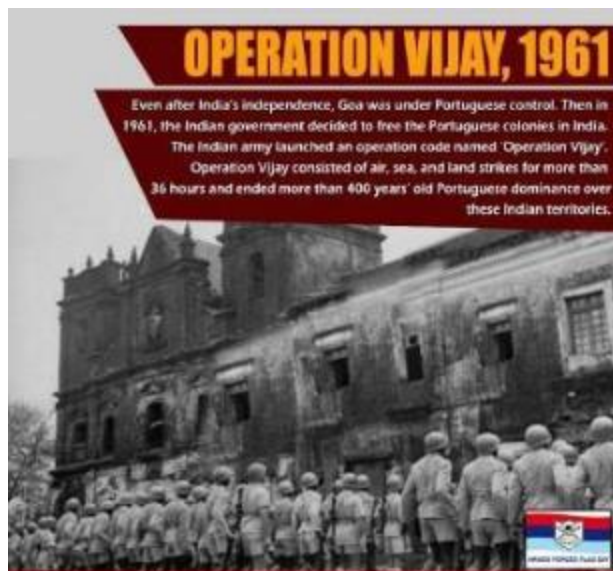
- ❖ On December 4, 2000, the UN General Assembly designated this day.
- ❖ This date commemorates the adoption of the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families by the UN General Assembly in 1990.
- ❖ In 2020, over 281 million people were international migrants.
- ❖ By the end of 2021, more than 59 million people were internally displaced.
- ❖ The theme for 2023 is “Promoting Safe Migration.”

Arabic Language Day 2023 - December 18

- ❖ On this day in 1973 that the UNGA adopted Arabic as the sixth official language of the Organization.
- ❖ It is used daily by more than 400 million people.
- ❖ This day is celebrated since 2012.
- ❖ The theme of 2023 is "Arabic - the Language of Poetry and Arts".

Goa's Liberation Day 2023 - December 19

- ❖ It is celebrated to commemorate the liberation of the state from Portuguese rule in the year 1961.
- ❖ It is also celebrated to mark the success of 'Operation Vijay' undertaken by the Indian armed forces.
- ❖ The Portuguese colonial presence in Goa began in 1510.
- ❖ Goa had been under Portuguese rule for some 451 years.
- ❖ Goa and two other former Portuguese enclaves became the union territory of Goa, Daman and Diu.
- ❖ On 30th May, 1987, the territory was split and Goa was formed as 25th State of the India.



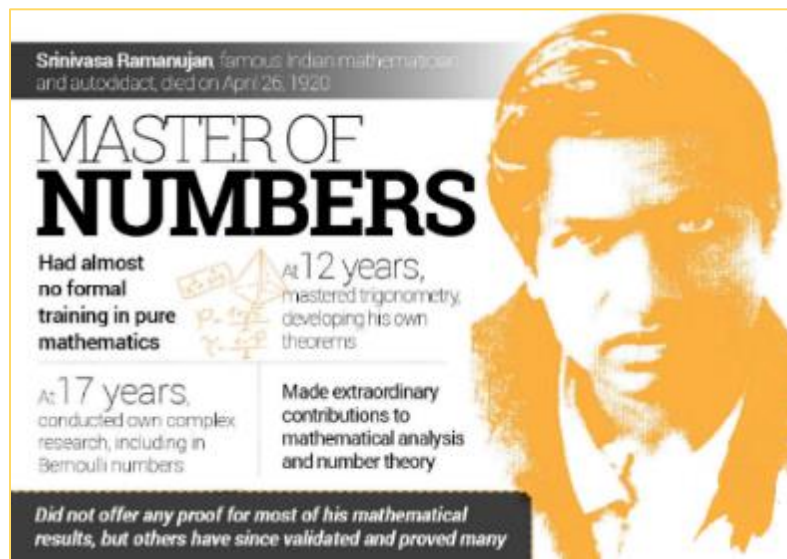
International Human Solidarity Day 2023 - December 20

- ❖ It aims to celebrate the ideal of unity in diversity and raise public awareness regarding the importance of solidarity.

- ❖ On December 20, 2002, the General Assembly had established the World Solidarity Fund.
- ❖ On December 22, 2005, the United Nations General Assembly proclaimed this day.

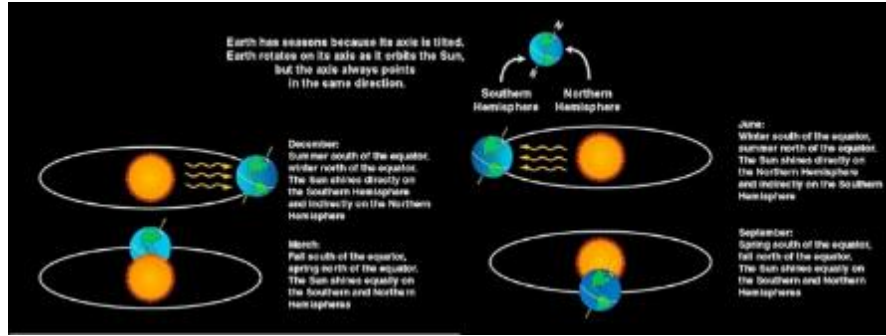
National Mathematics Day 2023 - December 22

- ❖ It commemorates the birth anniversary of the great mathematician Srinivasa Ramanujan.
- ❖ He is known as one of the greatest Indian mathematicians of all time, Ramanujan worked on theorems that seemed almost impossible to solve.
- ❖ He is known for the work he did in the areas of continued fractions, Riemann series, elliptic integrals, hypergeometric series and functional equations of the zeta function.
- ❖ In 2012, former Prime Minister Manmohan Singh declared this day.
- ❖ 2012 was also termed and celebrated as the National Mathematics Year.

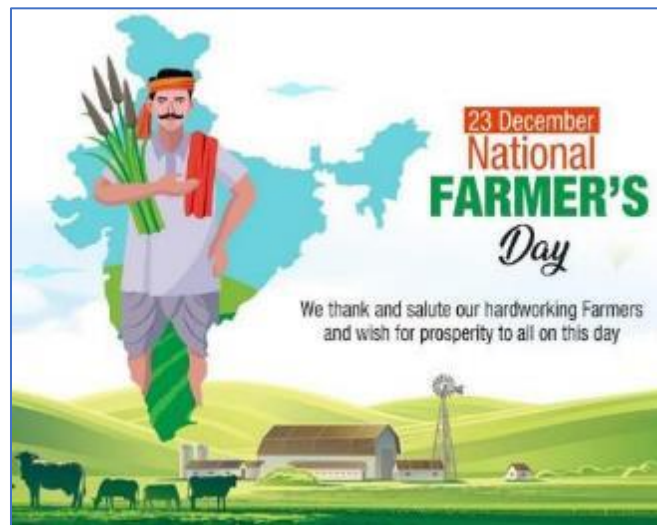


Winter Solstice 2023 - December 21

- ❖ December 21 is recognised as the shortest day and the longest night of the year in the Northern Hemisphere.
- ❖ This is a specific moment in time when the Earth's axial tilt is farthest away from the sun. This tilt, at approximately 23.4 degrees.
- ❖ It means that the North Pole is angled at its maximum distance from the sun.
- ❖ This causing sunlight to spread thinly over the hemisphere and creating the shortest path through the sky.



National Kisan Diwas 2023 - December 23



- ❖ The day aims to spread awareness about the contribution of farmers to the socio-economic development of the nation.
- ❖ The day celebrated to mark the birth anniversary of Chaudhary Charan Singh, the fifth Prime Minister of India.
- ❖ He served the nation from July 28, 1979, to January 14, 1980.
- ❖ He is Known for his pioneering work to promote the welfare of farmers in India and the agricultural sector.
- ❖ He introduced several welfare schemes for them.
- ❖ Charan Singh established the Kisan Trust in 1978.

National Consumer Rights Day 2023 - December 24

- ❖ In 1986, the Consumer Protection Act was passed and received the assent of the President on December 24.

- ❖ Since then, this National Day is celebrated on this day to commemorate the occasion.
- ❖ The Consumer Protection Act acts to protect consumers from defective goods, negligent services, and unfair trade practices.
- ❖ The six fundamental rights of the Consumer Protection Act are Right to safety, right to choose, Right to be informed, Right to be heard, Right to seek redressal and Right to consumer education.
- ❖ The World Consumer Rights Day is celebrated every year on March 15.



International Biodiversity Day 2023 - December 29

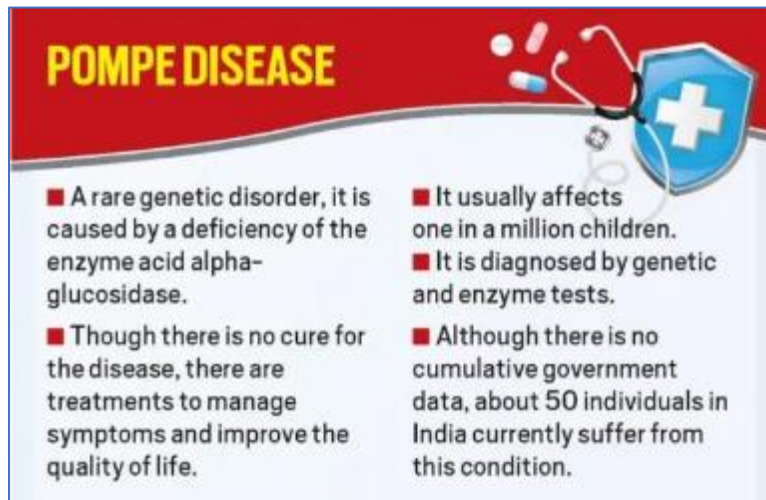
- ❖ This date commemorates the Convention on Biological Diversity came into force in 1993.
- ❖ From 1993 till 2000, World Biodiversity Day was celebrated on 29th December.
- ❖ It was on December 20 in 2000 that May 22 was designated as the new date for celebrating International Day for Biological Diversity.



MISCELLANEOUS

Pompe Disease

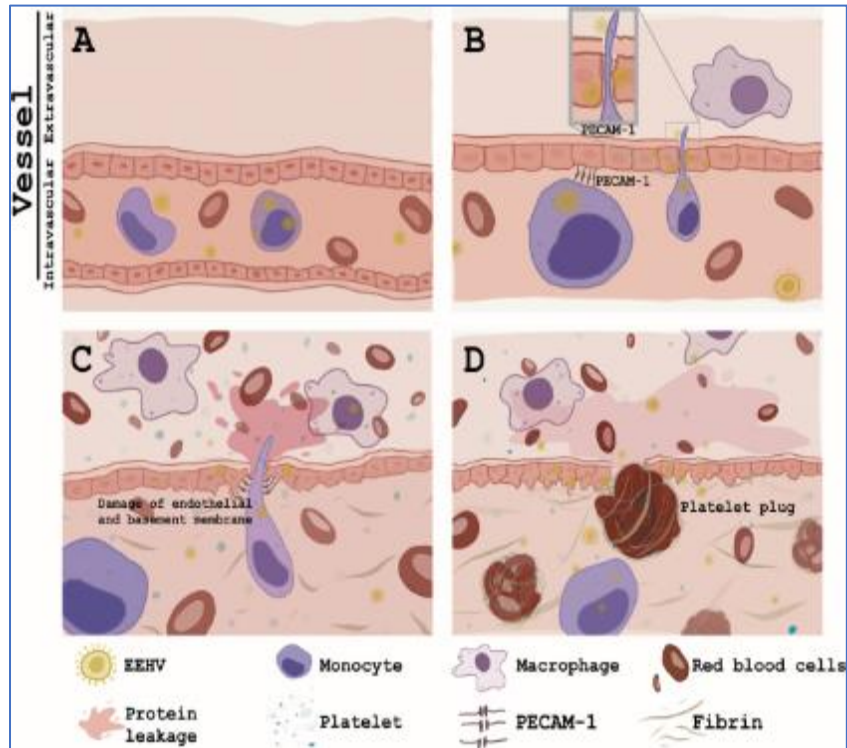
- ❖ India's first patient diagnosed with the Pompe disease died after spending nearly six years in a semi-comatose state.
- ❖ Pompe disease is a rare inherited disorder that affects one child per million.
- ❖ In 2010, Prasanna Shirol, father of a child with Pompe disease, initiated the Organisation for Rare Diseases India (ORDI).
- ❖ ORDI is the first NGO in the country dedicated to rare diseases.
- ❖ Pompe Disease is also known as Glycogen Storage Disease Type II.
- ❖ It is a rare genetic disorder resulting from a deficiency of the enzyme acid alpha-glucosidase (GAA).
- ❖ This enzyme plays a crucial role in breaking down glycogen into glucose within cell lysosomes.
- ❖ While there is currently no cure for Pompe disease, Enzyme Replacement Therapy (ERT) serves as a standard treatment.



Elephant Endotheliotropic Herpes Virus

- ❖ Recently, the ICAR-Indian Veterinary Research Institute (ICAR-IVRI), Bareilly, has found the exact status of elephant endotheliotropic herpesvirus subtypes (EEHV) and its subtypes circulating among Asian elephant population in India.
- ❖ EEHVs is a type of herpesvirus that can cause a highly fatal haemorrhagic disease in young Asian elephants.
- ❖ It is a double-stranded DNA virus that is classified in the family Herpesviridae.

- ❖ Majority of elephants also carry this virus.
- ❖ When EEHV is triggered, the elephant dies of massive internal bleeding and symptoms which are hardly visible.
- ❖ The disease is usually fatal, with a short course of 28-35 hours.



DRESS Syndrome



- ❖ The Indian Pharmacopoeia Commission (IPC) issued a safety alert regarding Meftal, a commonly sold painkiller.
- ❖ The drug's potential to cause a reaction known as Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome.

- ❖ DRESS syndrome (Drug Rash with Eosinophilia and Systemic Symptoms) is an adverse reaction term that is currently used to describe a hypersensitivity reaction.
- ❖ Experts classify DRESS syndrome as a type 4 hypersensitivity reaction.
- ❖ It is a serious drug reaction affecting the skin and other organs, with a mortality rate of up to 10%.

India's 2023 Google search

- ❖ Chandrayaan-3, IPL and G20 reflected in the list of top trending searches in India, according to Google.
- ❖ Queries about the Cricket World Cup and India vs Australia's cricket matches scoring an all-time high this year.
- ❖ The India National Cricket team ranked as the top trending cricket team worldwide.
- ❖ This is the only cricket team to find a spot as part of our global sports teams list.
- ❖ Shubman Gill and Rachin Ravindra emerged as the top trending cricketers locally and globally.
- ❖ Jawan staked its claim to the top trending local film search and #3 top trending film search globally.



Saint-Belec Slab

- ❖ In northern France, researchers are analysing mysterious markings on a Bronze Age rock as they hope to find some hidden ancient sites.

- ❖ The rock is now being hailed as a "treasure map" and has been unstudied for 4,000 years.
- ❖ Bronze Age rock is known as the Saint-Bélec slab.
- ❖ The ancient map marks an area roughly 30 by 21 kilometres.
- ❖ Researchers said that it's a "treasure map" and the job could take 15 years.



Dictionaries' words of the year 2023

- ❖ "Hallucinate" is Dictionary.com's word of the year.
- ❖ Oxford English Dictionary has unveiled its 2023 Word of the Year: 'Rizz'.
- ❖ Collins English Dictionary, went a step further and announced "AI" as its Word of the Year 2023.
- ❖ The Cambridge Dictionary announced "hallucinate" as its Word of the Year 2023.
- ❖ Merriam-Webster Dictionary has announced "authentic" as the Word of the Year for 2023.



Aktocyte tablets for cancer

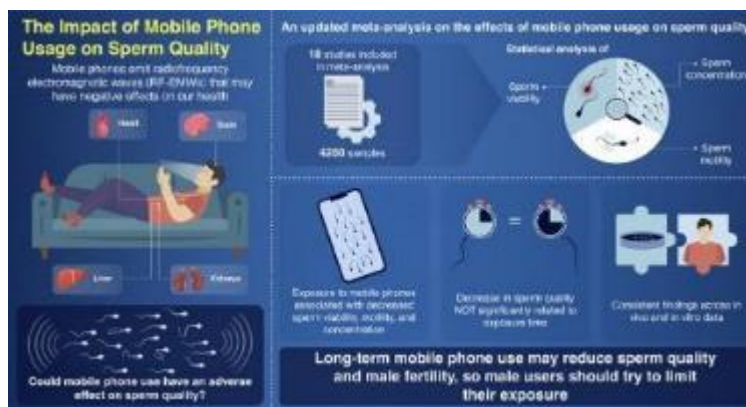
- ❖ Department of Atomic Energy (DAE) and Bengaluru-based IDRS Labs have joined hands to develop Aktocyte tablets for treating pelvic cancer.
- ❖ The Aktocyte tablets have shown remarkable results, particularly in pelvic cancer patients suffering from radiotherapy-induced Cystitis (blood in urine).
- ❖ It will be eliminating the need for surgical removal of the urinary bladder.

India's first Sodium ION battery technology

- ❖ KPIT Technologies unveiled its Sodium (Na)- battery technology.
- ❖ The technology is set to lower the cost of an electric vehicle battery by 25-30% compared to the current lithium-ion batteries.
- ❖ It is promising 80% capacity retention for 3000-6000 cycles and faster charging.
- ❖ The sodium-ion batteries will enable faster charging in comparison to lithium-ion batteries.
- ❖ This sodium-ion battery technology is completely reliant on Earth's abundant raw materials.

Mobile phone usage and sperm count

- ❖ A recent study has explored the potential connection between mobile phone usage and a decrease in male sperm count.
- ❖ Over the past 50 years, global sperm counts have declined by more than 50 per cent.
- ❖ Those who used their mobile phones more than 20 times a day had a 21 percent higher risk of having a low overall sperm count.
- ❖ Mobile phone's low-level radiofrequency electromagnetic fields (RF-EMF) raises the questions about potential health implications.



Oldest Evidence of Yak Domestication



- ❖ The oldest record ever of a yak being domesticated by humans has been found in Bangga, Tibetan Autonomous Region.
- ❖ The humans in Bangga located on the Yarlung-Tsangpo (Brahmaputra) also domesticated cows of the taurine variety, along with yaks some 2,500 years ago.
- ❖ Bangga is located at an elevation of approximately 3,750 metres (12,300 feet) above sea level.
- ❖ Wild yaks are now listed as “vulnerable” by the IUCN.
- ❖ They estimated as 7,500 to 10,000 mature individuals left in the wild.

Joynagar moa

- ❖ The makers of the Joynagar moa will sell their product in boxes bearing barcodes and QR codes in order to keep imitations in check.
- ❖ The moa is a popped-rice ball held together with fresh date-palm jaggery that is extracted from December to February.
- ❖ Its making is so synonymous with the town of Joynagar, located about 50 km from Kolkata.
- ❖ The confectionary earned the geographical Indication tag of Joynagar Moa in 2015.



Andriamamelolo Cave



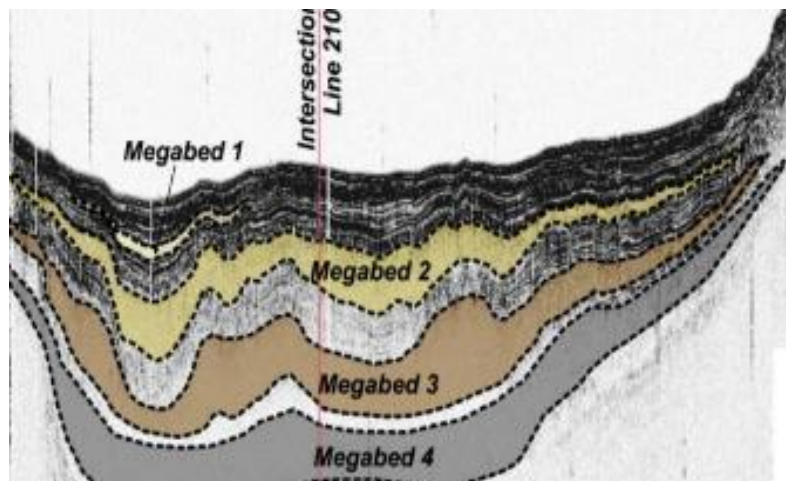
- ❖ Unique, prehistoric rock art drawings have been discovered in the Andriamamelolo Cave in western Madagascar.
- ❖ The dramatic discoveries contained hints at some remarkable cultural connections.
- ❖ First, scenes depicted in some cases linked up fairly directly to Egyptian religious motifs from the Ptolemaic period (300-30 BCE)
- ❖ Second, other inferences from symbols and writing on the walls showed connections to the Ethiopian and Afro-Arab worlds.
- ❖ Finally, prevalent symbology and motifs evoked a two-millennia-old cave art style from Borneo.
- ❖ At least three extinct animals of Madagascar (thought to have been extinct for many centuries) may be depicted – a giant sloth lemur, elephant birds and a giant tortoise.
- ❖ The art is about 2,000 years old – dating back to the time of Cleopatra or before.

World's Oldest Known Fort

- ❖ Team of archaeologists has found the world's oldest known fort which dates back to 8,000 years in a remote region of Siberia.
- ❖ This indicates hunter-gatherers made complex defence structures, much before than once believed.
- ❖ The site is located along the Amnya River in western Siberia.
- ❖ It features around 20 scattered pit-house depressions divided into two sections, Amnya I and Amnya II.



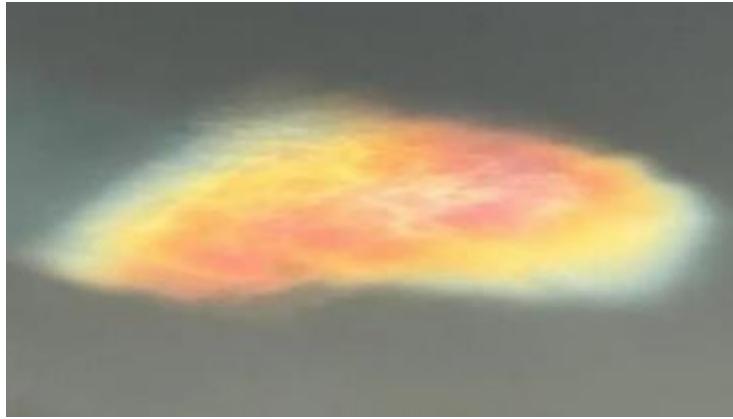
Megabeds from ancient volcanic eruptions



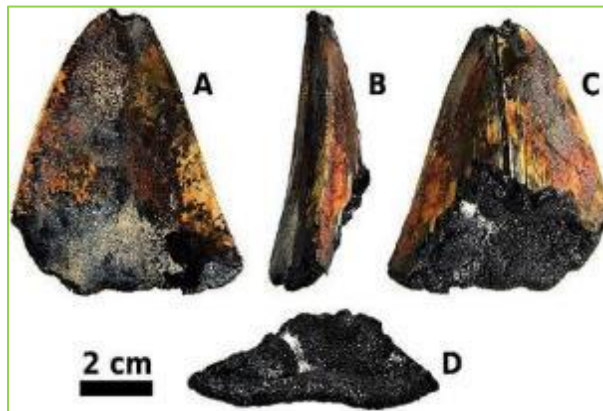
- ❖ Scientists have discovered "megabeds" from ancient volcanic eruptions at the bottom of the Mediterranean Sea.
- ❖ It is showing the evidence of several millennia of catastrophic events that hit the region in every few thousand years.
- ❖ The oldest layer was found to be around 40,000 years old, the next oldest was 32,000 years old, and the third was 18,000 years old.
- ❖ The youngest sediment core was formed about 8,000 years ago.
- ❖ Megabeds refer to deposits of substances formed in marine basins due to events of catastrophic nature such as the volcanic eruptions.

Iridescent clouds

- ❖ The Nacreous cloud forms in very cold conditions over polar regions and within the stratosphere, about 12 to 19 miles high, far above normal clouds.
- ❖ The polar stratospheric clouds, which form only below -78°C , are best known for the beautiful pastel light.
- ❖ It was formed while tiny ice crystals refract sunlight, and gives the cloud pearly colours - the reason why it is also called mother-of-pearl.
- ❖ Because of the height and temperature needed this cloud is also known as Polar Stratospheric Cloud.



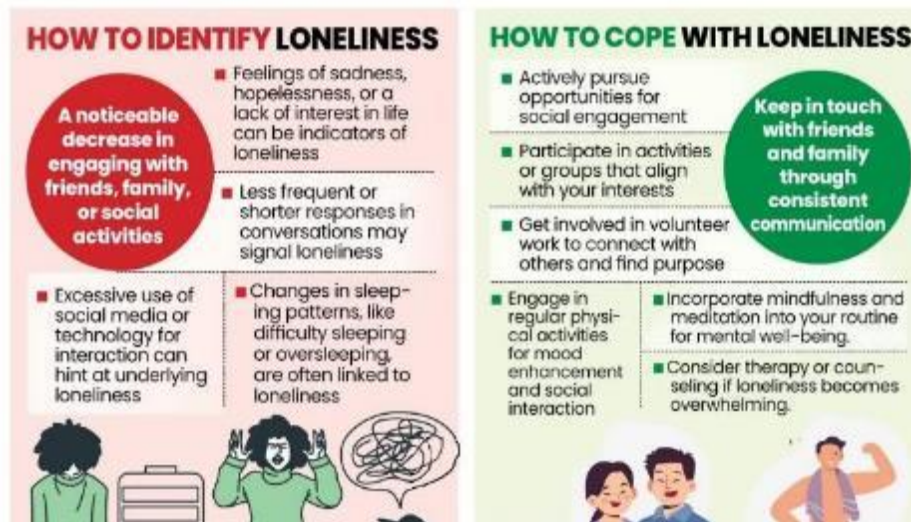
Megalodon Tooth in Deep Sea



- ❖ A fossilised megalodon tooth in the deep sea has been discovered by a small team of oceanographers.
- ❖ This is the first time that the tooth has been found in the location where it originally settled after leaving the mouth.
- ❖ Megalodon, is said to be one of the greatest predators of all time.
- ❖ It may roam the oceans between 4 and 20 million years ago.

Loneliness impact on health

- ❖ Loneliness has been declared as a pressing global health threat with a mortality effect equivalent to smoking 15 cigarettes a day.
- ❖ According to the WHO, in older adults, loneliness is associated with a 50% increased risk of developing dementia and a 30% increased risk of coronary artery disease or stroke.
- ❖ Additionally, between 5% and 15% of adolescents are lonely, according to the research findings.



India's Crypto Portfolio 2023

- ❖ More than 20% of India's total crypto investments are concentrated in the three major metropolitan areas: Delhi (9%), Bangalore (8%) and Mumbai (5%).
- ❖ Ghaziabad claimed the 10th position in the list of the top invested cities, replacing Patna from the spot
- ❖ About 75% of the invested users are below the age of 35.
- ❖ Top invested cryptos were Dogecoin (DOGE), Bitcoin (BTC), and Ethereum (ETH) contributing to 26% of the total value.
- ❖ Solana (SOL) was the best-performing crypto in India's portfolio, with 633% growth year-to-date.
- ❖ Delhi and Hyderabad saw the highest participation of women investors; 9% of India's crypto investors are women.



★ ★ ★ ★ ★ ★ ★ ★ ★ ★