CURRENT AFFAIRS WEEKLY



MAINS

- GS- II D QATAR FREES INDIAN NAVY
 VETERANS
 - SRI LANKA FOREIGN VESSEL BAN
 - ► MEA TOLD TO MONITOR ORGAN TRANSPLANTION PROCESS
 - STRENGTHENING INDIA'S EPIDEMIC PREPAREDNESS
 - REGIONAL BENCHES OF SUPREME COURT
 - BHARAT RATNA: INDIA'S HIGHEST CIVILIAN AWARD
- GS- III
- THE DEBATE OVER "SOCIALIST"

 AND "SECULAR" IN PREAMBLE
- **► ESCALATING HUMAN-ANIMAL**CONFLICT IN KERALA
- THE UNTAPPED POTENTIAL OF STEM CELLS IN MENSTRUAL BLOOD
- NAVIGATING THE ETHICAL FRONTIERS OF CRISPR

PRELIMS

GEOGRAPHY

Rafah Border Situation

INTERNATIONAL RELATIONS

US Senate's \$95
 billion bill to aid
 Ukraine

POLITY & GOVERNANCE

- cabinet approves Rs 6,000 crore fishery scheme
- India-Myanmar Free Movement Regime (FMR)
- Centre to include
 ASHA workers in
 Ayushman Bharat
 scheme
- PM-SVANidhi boosted annual income of street

vendors: Study

- n Nazool land
- Functioning of 17th Lok Sabha

ECONOMY

- India's UPI and RuPay Card Services Go Global
- Direct Tax Kitty
- Centre Rules out MSP Law
- Fugitive Economic
 Offenders

SCIENCE & TECHNOLOGY

- Kyasanur ForestDisease (KFD)
- X Chromosome and Autoimmunity
- High-Altitude
 Pseudo Satellite
 Vehicle (HAPS)

NEWS IN SHORT

- BAPS Hindu Mandir
- Berrechid Plain
- Janaspandana
- Women make up only 9% of Information Commission: RTI
- Voters in India
- SC refuses to stay law to appoint ECs
- Microfinance institutions (MFIs)
- MSCI Index
- Olive Ridley turtles
- Great Indian Bustard
- Key proteins could predict dementia: Study

SPECIALS

Energizing India's
Future: Collaborations,
Commitments, and Clean
Energy



www.iasscore.in

- Disclaimer -

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.



CONTENTS

WEEK - 2 (FEBRUARY, 2024)

| Section - A: MAINS CURRENT AFFAIRS | | | | | |
|---|----------------------------|--|----------|--|--|
| Section of GS | | Topics in News | Page No. | | |
| GS II | INTERNATIONAL RELATIONS | Qatar Frees Indian Navy Veterans | 02 | | |
| | | Sri Lanka Foreign Vessel Ban | 03 | | |
| | POLITY AND GOVERNANCE | MEA told to monitor organ transplantion process | 04 | | |
| | | Strengthening India's Epidemic Preparedness | 05 | | |
| | | Regional Benches of Supreme Court | 06 | | |
| | | Bharat Ratna: India's highest civilian award | 07 | | |
| | | The Debate Over "Socialist" and "Secular" in Preamble | 10 | | |
| GS III | ENVIRONMENT | Escalating human-animal conflict in Kerala | 12 | | |
| | SCIENCE & TECHNOLOGY | The untapped potential of stem cells in menstrual blood | 13 | | |
| | | Navigating the Ethical Frontiers of CRISPR | 14 | | |
| Section - B: SPECIAL | | | | | |
| Energizing India's Future: Collaborations, Commitments, and Clean Energy 18 | | | | | |
| Section - C: PRELIMS CURRENT AFFAIRS | | | | | |
| Section of GS | | Topics in News | Page No. | | |
| GS I | GEOGRAPHY | Rafah Border Situation | 24 | | |
| GS II | INTERNATIONAL RELATIONS | US Senate's \$95 billion bill to aid Ukraine | 24 | | |
| | POLITY & GOVERNANCE | Cabinet approves Rs 6,000 crore fishery scheme | 24 | | |
| | | India-Myanmar Free Movement Regime (FMR) | 25 | | |





ALL INDIA PRELIMS MOCK TEST

OMR BASED

GET REAL TIME FEEL of Prelims Examination in



Across 50+ Cities

- AGRA
- AHMEDABAD
- ALIGARH
- AURANGABAD (MAHARSTRA)
- BARAILY
- BENGALURU
- BHOPAL
- BHUBANESWAR
- BILASPUR
- CHANDIGARH
- COIMBATORE
- CUTTACK
- **DEHRADUN**

- DELHI
- **DHARMSHALA**
- DHARWAD
- GORAKHPUR
- GUWAHATI
- **GWALIOR**
- HYDERABAD
- INDORE
- ITANAGAR
- **JABALPUR**
- JAIPUR
- JAMMU
- JODHPUR

- KOCHI
- KOLKATA
- LUCKNOW
- LUDHIANA
- **MADURAI**
- MUMBAI
- MYSORE
- NAGPUR
- NAVI MUMBAI
- PANAJI
- **PATNA**
- **PRAYAGRAJ**
- **PUNE**

- RAIPUR
- **RAJKOT**
- **RANCH**
- **SAMBALPUR**
- SHILLONG
- **SHIMLA**
- SRINAGAR
- **SURAT**
- THIRUVANANTHA-**PURAM**
- UDAIPUR
- VARANASI
- **VIJAYAWADA**
- **VISAKHAPATNAM**

TEST TIMING

PAPER 1: 9:30 AM to 11:30 AM

PAPER 2: 01:00 PM to 03:00 PM

TEST DISCUSSION

ONLINE MODE 5:30 PM on the Day of Test

ENGLISH & हिंदी माध्यम्

1000/- for ALL 3 MOCK TESTS





MOCK TEST - 1: 17 MARCH, 2024

MOCK TEST - 2: 14 APRIL, 2024

MOCK TEST - 3: 05 MAY, 2024



| GS II | POLITY & GOVERNANCE | Centre to include ASHA workers in Ayushman Bharat scheme | 26 | | |
|--|-------------------------|--|----|--|--|
| | | PM-SVANidhi boosted annual income of street vendors: Study | 27 | | |
| | | Nazool land | 27 | | |
| | | Functioning of 17th Lok Sabha | 28 | | |
| | ECONOMY | India's UPI and RuPay Card Services Go Global | 28 | | |
| | | Direct Tax Kitty | 29 | | |
| | | Centre Rules out MSP Law | 29 | | |
| GS III | | Fugitive Economic Offenders | 31 | | |
| | SCIENCE & TECHNOLOGY | Kyasanur Forest Disease (KFD) | 31 | | |
| | | X Chromosome and Autoimmunity | 32 | | |
| | | High-Altitude Pseudo Satellite Vehicle (HAPS) | 33 | | |
| Section - D: SHORT NEWS | | | | | |
| Topics in News | | | | | |
| BAPS Hindu Mandir | | | | | |
| Berrechid Plain | | | | | |
| Janaspandana | | | | | |
| Women make up only 9% of Information Commission: RTI | | | | | |
| Voters in India | | | | | |
| SC refuses to stay law to appoint ECs | | | | | |
| Microfinance institutions (MFIs) | | | | | |
| MSCI Index | | | | | |
| Olive Ridley turtles | | | | | |
| Great Indian Bustard | | | | | |
| Key proteins could predict dementia: Study | | | | | |

GSSCORE

IAS 2024

An Institute for Civil Services

PRELIMS FOCUS

S DAYS **PRELIMS** REVISION CRASH COURSE



PROGRAMME FEE ₹ 6,000 (+GST)

COMBO 1 COMBO 2

PRELIMS CRASH COURSE + CURRENT AFFAIRS **CLASSES** ₹8,000 +GST

PRELIMS CRASH COURSE + CURRENT AFFAIRS CLASSES + MOCK TEST SERIES ₹10,000 +GST



Complete **Coverage of Prelims Syllabus** in 30 days through 100+ Hrs. Classes



Refinement of skills necessary for Complete **Prelims** Readiness



6 Sectional Tests after completion of each subject



Doubt Clearing **Session &** Mentorship





Section A [MAINS]

- **Qatar Frees Indian Navy Veterans**
- **MEA** told to monitor organ transplantion process
- Strengthening India's Epidemic Preparedness
- **S** Regional Benches of Supreme Court
- **Bharat Ratna: India's highest civilian award**
- Mark The Debate Over "Socialist" and "Secular" in Preamble
- **S** Escalating human-animal conflict in Kerala
- s The untapped potential of stem cells in menstrual blood
- **S** Navigating the Ethical Frontiers of CRISPR



QATAR FREES INDIAN NAVY VETERANS

Context: Indian navy veterans arrested on the espionage charges and given death sentence by the Qatari courts had been freed. The capital punishment was commuted to an extended prison term earlier following diplomatic intervention by New Delhi.

Background

- ♦ The veterans Captains Navtej Gill and Saurabh Vasisht, Commanders Purnendu Tiwari, Amit Nagpal, SK Gupta, BK Verma and Sugunakar Pakala, and sailor Ragesh – were detained in August 2022 on undeclared charges.
- ♦ They were accused of **espionage** related to a submarine program for Israel. The Qatari court initially handed down death sentences.
- **♦ Diplomatic Interventions**: India had earlier expressed "deep shock" at the death sentence given by Qatar's Court of First Instance.
 - The Indian government left no stone unturned in advocating for their release. Utilizing all available diplomatic channels, New Delhi worked tirelessly to secure their freedom.
- ♦ The Qatari Emir's Decision: The Amir of the State of Qatar, in a momentous decision, commuted the death penalties to jail terms. This compassionate act paved the way for the return of these eight nationals to India. Their release is a testament to the power of diplomacy, compassion, and human rights.

What options do countries have in such cases?

• If bilateral channels fail to yield satisfactory outcomes, countries can consider raising the matter on international platforms. This could include discussions in the United Nations, Commonwealth, International Court of Justice (ICJ) or other international forums where both nations participate.

India Qatar Relations

Trade and investment

- ♦ India's bilateral trade with Qatar reached US\$ 18.77 billion in 2022-23.
- Qatar is the largest supplier of LNG to India, accounting for over 48% of India's global LNG imports.

♦ The India-Qatar Start-up Bridge initiative aims to link the start-up ecosystems of both countries.

Important Items

- India's exports to Qatar: cereals, copper items, iron and steel products, vegetables, plastics, construction materials, textiles, and garments.
- India's imports include liquefied natural gas (LNG), liquefied petroleum gas (LPG), chemicals, petrochemicals, plastics, and aluminium articles to
- ♦ LNG imports: India recently finalised a USD 78 billion agreement to prolong LNG imports from Qatar for an additional 20 years until 2048, securing rates below current prices. This gas will be utilised for electricity generation, fertiliser production, and conversion into compressed natural gas (CNG).
 - Petronet LNG Ltd, the largest importer of LNG in India, announced that it has entered into an agreement with QatarEnergy to extend the contract for purchasing 7.5 million tonnes of gas annually.

Defence cooperation

- ♦ India extends training programs in its defense institutions to partner nations, including Qatar.
- Participation in the Doha International Maritime Defense Exhibition and Conference (DIMDEX) strengthens bilateral ties.
- Regular naval and coast guard interactions underscore cooperation between the two nations.
- ♦ Za'ir Al Bahr (Roar of the Sea) naval exercises were conducted between Indian Navy and Qatar Emiri Naval Forces.
- ♦ Geopolitical dynamics: India's ties with other Middle Eastern nations don't always align with Qatar's alliances.

What is the strategic importance of Qatar for India?

- ♦ Qatar has an outsize influence in the Islamic world. It was the key mediator between US and Taliban which culminated into Doha Agreement.
- The widely popular news channel Al Jazeera act as a credible source of news and a point of friction as seen during Saudi Arabia's blockade of Qatar.

Indian Diaspora

- ➤ Over 800,000 Indian nationals reside in Qatar, forming the largest expatriate community.
- During the second wave of COVID-19, Qatar sent COVID medical relief material to India.

WEEKLY

How this win shows a shift in India's Middle East policy?

- ♦ The Qatar saga has played out amid a similarly dramatic shift in India's Middle East policy over the last few months, namely with regard to Israel.
- ♦ At the outset of the war in Gaza, India was quick to express support for Israel, even while reiterating its usual line of support for a two-state solution.
- ♦ In November 2023, India voiced its support for a United Nations resolution that condemned Israeli settlements in the West Bank and offered similar support in December for a resolution calling for an immediate ceasefire in Gaza.
- ♦ At best, the India-Qatar dispute demonstrates that Middle Eastern countries, particularly in the Arab world, are somewhat sensitive to the relationship between Israel and India, especially with regard to military-to-military links. The dispute (and its resolution) shows that India's relationship with Israel can seriously impact its partnerships with other regional actors.



SRI LANKA FOREIGN VESSEL BAN

Context: The ban on Chinese ships in Sri Lanka's exclusive economic zone (EEZ) has become a point of discussion at the global level.

What has happened?

- Sri Lanka recently announced that it would not allow any Chinese research vessels to dock at its ports or operate within its EEZ for a year.
- The move came after Indian Prime Minister Narendra Modi urged Sri Lanka President to respect New Delhi's strategic and security concerns.
- ♦ India had earlier raised objections to Chinese research vessel Shi Yan 6, which had conducted a joint maritime survey in October to November with the Sri Lankan maritime agency.
- India and also the United States had often expressed displeasure to Sri Lanka on the increasing presence of Chinese combat and research vessels in the Indian Ocean, that occasionally anchor on Sri Lankan ports.

India-China clash on Sri Lanka

♦ For years, India and China have vied for influence in Sri Lanka and across the wider Indian Ocean, with Delhi viewing the sea lanes as vital to defending its southernmost regions.

Amid strained ties with India over a border clash in 2020, China's expanding interests in the Indian Ocean include growing diplomatic and trade ties.

Sri Lanka's Exclusive Economic Zone (EEZ)

- The Sri Lankan coastline is 1,340 km long, and territorial waters extend up to 22 km from that shore to cover a total area of about 21,500 km².
- The Exclusive Economic Zone (EEZ) extends outward 370 km from the shore and covers an area about 5,10,000 km² of the Indian Ocean.



China's expanding interests in the Indian **Ocean**

- ♦ In 2008 and 2014, Beijing had deployed its navy and submarines respectively in the Gulf of Aden in support of its anti-piracy operations.
- ♦ In 2017, China established its **first ever overseas** military facility in the Indian Ocean, in Djibouti in the Horn of Africa.
- ♦ Last November, Sri Lanka gave the green light to China's energy giant, Sinopec, to establish a new petroleum refinery plant in Hambantota, the town that also houses the deep water port that was leased to China in 2017 after Colombo defaulted on debt payments.

Why does India object to Chinese vessels docking in Sri Lanka?

♦ **Security threats**: India considers Chinese ships docked so close to its mainland a security threat, and suspects they could be used for snooping, even when their stated aim is scientific research.



Why is China's Presence in Sri Lanka a **Concern for India?**

- China's Debt strategy: Recently, China's presence in Sri Lanka has increased on a large scale.
 - ➤ China is the largest bilateral creditor to Sri Lanka.
 - ▶ Its loans to the Sri Lankan public sector amount to 15% of the central government's external debt.
 - Sri Lanka heavily relies on Chinese credit to address its foreign debt burden.
- **♦ Investment on Infrastructure**: China extended about USD 2.8 billion to Sri Lanka soon after the pandemic hit but has not stepped in much in 2022, even as the island's economy collapsed rapidly.
 - China has invested about USD 12 billion in Sri Lanka's infrastructure projects between 2006-19.
- ♠ Relations with Island countries: China enjoys friendlier waters in South Asia and the Indian Ocean than it does in Southeast Asia and the Pacific.
 - China faces opposition from Taiwan, territorial disputes in the South China Sea and East Asia, and myriad frictions with the **US and Australia**.



MEA TOLD TO MONITOR ORGAN TRANSPLANTION **PROCESS**

Context:

The Union Health Ministry written to the Ministry of External Affairs to identify a nodal officer for coordinating organ donations and transplants undertaken by foreigners to prevent any possible commercial dealings in the process.

What is the need?

- Many foreign nationals are coming to India for various types of organ transplantations. They could be a prospective recipient or donor of organs and may be visiting on a medical or attendant visa.
- ♦ A "recent media report has highlighted that in some such cases, the veracity of the documents to establish relationship between the donor and the recipient, their identity documents, proof of residence etc. cannot be established confidently and the same may not be genuine".
- ♦ The Union Health Ministry has written to the Ministry of External Affairs to identify a nodal officer for coordinating organ donations and

transplants undertaken by foreigners to prevent any possible commercial dealings in the process.

What is organ transplantation?

- ♦ The transplantation of an organ from one body to another is known as the organ transplant.
- ♦ The person who gives the organ is called the donor while the one who receives is called the recipient.
- Organ transplant is done to replace the recipient's damaged organ with the working organ of the donor so that the recipient could function normally.
 - Despite performing the third-most number of transplants in the world, only about **0.01 percent** of Indians donate their organs after death, according to the World Health Organisation.

What are the laws and rules governing the organ transplantation in India?

- ♦ Transplantation of Human Organs Act, 1994: The primary legislation in India related to organ donation is Transplantation of Human Organs Act, 1994. The Act provides a system of removal, storage and transplantation of human organs for therapeutic purposes and for the prevention of commercial dealings in human organs.
- Recent changes: India has also updated its organ donation and transplant guidelines where
 - > No domicile criteria for receivers: The domicile requirement has been done away with.
 - ➤ **No age ceiling:** With the new changes, patients who are 65 years and older can now register for receiving organs from a deceased donor.
 - **No registration fees:** The states are requested to not impose any fees on patients seeking registration for organ transplantation, as it violates the 2014 Transplantation of Human Organs and Tissues Rules.

Organ donation in India (Government data):

- Organs from deceased donors accounted for nearly 8% of all transplants in 2022 in the country.
- ♦ The number of transplants has increased over the years.
- The total number of deceased organ transplants climbed from 837 in 2013 to 2,765 in 2022.
- ♦ The total number of organ transplants with organs from both deceased and living donors - increased from 4,990 in 2013 to 15,561 in 2022.
- ♦ India conducts the third highest number of transplants in the world.

WEEKLY

♦ Every year, an estimated 1.5-2 lakh people need a kidney transplant. Only around 10,000 got one in 2022. Of the 80,000 people who required a liver transplant, less than 3,000 got one in 2022. And, of the 10,000 who needed a heart transplant.

National Organ and Tissue Transplant Organization (NOTTO)

- ♦ The NOTTO is a national-level organisation housed in the Institute of Pathology (ICMR).
- It is mandated to establish a network for organ procurement and distribution and to maintain a national registry for the purpose of surveillance of organ donation and transplantation in the country.
- It was established under the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India.



STRENGTHENING INDIA'S EPIDEMIC PREPAREDNESS

Context: The Law Commission (headed by Justice (retired) Ritu Raj Awasthi, in its latest report, has highlighted the deficiencies of 127-year-old Epidemic Diseases Act 1897, and proposed essential reforms to ensure a robust legal framework for managing epidemics.

Background

- ♦ The Epidemic Diseases Act, 1897 was a law which was first enacted to tackle bubonic plague in Bombay state in former British India.
- ♦ It was enacted during the colonial era to empower authorities to take necessary measures to control infectious diseases.
- ♦ During COVID-19 pandemic, to counter the immediate challenges, Parliament amended the Epidemic Diseases Act of 1897 in 2020.

What are the points highlighted by the Law **Commission?**

Report: The Law Commission Published the 286th report on "the management, control, and prevention of epidemic diseases."

- The Law Commission flagged "significant deficiencies" in the Epidemic Diseases Act.
- ◆ Overhaul of the Act: The Commission recommended

to the government that either the law be suitably amended to address existing gaps or a comprehensive legislation be brought in to effectively deal with future epidemics.



- Though the colonial act was amended in 2020, these amendments fell short as critical gaps and omissions remained in the Act.
- **Strict punishment:** The provisions of the main law are "not stringent enough to act as an effective deterrent", calling for stricter punishment for disobedience of guidelines and regulations made by the government during any health emergency.

Current Punishment

- ♦ The punitive provisions of the Epidemic Diseases Act --- for disobeying orders under the law and attacks on health care workers --- are governed by sections of the criminal code Bharatiya Nyaya Sanhita, 2023 (or the erstwhile Indian Penal
- ♦ Under the BNS, while the punishment has been enhanced to a jail term that may extend to one year or a fine of ₹5,000 (up from IPC Section 188's jail term of up to six months and a fine of ₹1,000), it may not be enough of a deterrent.
- ♦ Defining an 'Epidemic': A clear definition of an 'epidemic' is crucial. The amended law or the new legislation should demarcate the stages of disease progression, including "outbreak," "epidemic," and "pandemic." This clarity will guide authorities in implementing appropriate measures at each stage.
- Roles of Central, State, and Local Authorities: The proposed legislation should formulate an Epidemic Plan that clearly defines the roles and responsibilities of central, state, and local authorities. Consultation with stakeholders, including private hospitals and experts, during the drafting process is essential.
- **♦ Response Mechanisms:** The new law should go beyond granting stipulated powers to the government. It must shape appropriate response mechanisms for preventing and controlling epidemic



diseases. Scientific advancements should inform these mechanisms, ensuring a coordinated approach.

♦ Clarification of Terms: To avoid ambiguity, the legislation should clearly differentiate between terms like 'quarantine' and 'isolation'. Precise definitions will enhance effective implementation during health

Law Commission

- Law Commission of India is a **non-statutory body** constituted by the Government from time to time.
- Core functions:
 - ➤ Its core function is to reform laws, comprises of legal experts assigned by the government to take good care of the laws, and create maximum peace, security and justice in the
 - ➤ It also acts as an advisory body to the **Ministry** of Law and Justice.
- The Constitution of India does not say anything about the formation of law commission or what it actually is.
 - ➤ However, under Article 39 A of the Indian Constitution, it is the state's duty to promote justice by providing equal opportunities, free legal aid through suitable schemes.

Historical Background

- The **first Law Commission** was appointed in India in 1834 under the **UK Charter Act of 1833** for the purpose of codifying the laws of British India.
- The commission consisted of Lord T.B. Macually, as chairman and 4 members.
- After Independence, the government established the first Law Commission of independent India in 1955 with **MC Setalvad** as its chairman.
- Since India's independence, i.e., after 1947 there have been 22 law commissions.
- Justice Rituraj Awasthi, retired Chief Justice of Karnataka High Court is the chairperson of the 22nd Law Commission of India.



REGIONAL BENCHES OF SUPREME COURT

Context: The Indian government has reportedly given its nod to the recommendation of a parliamentary committee advocating the establishment of regional benches for the Supreme Court.

Key-highlights

- ♦ Presenting its action-taken report on "Judicial Processes and Their Reforms," the Standing Committee on Law and Personnel in the Lok Sabha revealed that the government has acknowledged its suggestion.
- Emphasising the significance of 'access to justice' as a fundamental right, the committee underscored the long-standing demand for regional benches to ensure justice reaches the doorsteps of citizens.

In 2009, the 18th Law Commission also recommended the formation of regional benches of the Supreme Court of India.

Constitutional Provision (regarding Seat of the Supreme Court)

♦ As per Article 130, the Supreme Court is mandated to sit in Delhi or other locations designated by the Chief Justice of India with the President's approval.

Problems With Regard to the Centralisation

The centralisation of the Supreme Court has given rise to several issues.

Capacity & Issue

- Presently there are **34 seats for judges** in the Supreme Court, which is much less in comparison to the population of the country.
- Even these 34 seats are not filled in, and only 31 judges, including the Chief Justice, are holding the judicial seats at the Supreme Court.
- This reduces the capacity for the fast delivery of
- **Example 2** Long-way for outsiders: The Supreme Court of India sits in Delhi, which makes it a daunting task for people outside of Delhi to seek justice.
- **Expensive:** It has become an expensive affair to knock on the door of the apex court.
- ♦ Ignored Underprivileged: It makes it difficult for extensively underprivileged people who live in the remotest areas of the country to even think of reaching to Supreme Court.
- **Burden:** Further, it has also given birth to the long line of pending cases, thus, leading to a heavy burden on the apex court.



Arguments In-favour of Regional Benches

- Increased number of Judges: The formation of regional benches will increase the number of seats of judges.
- More appointments, better delivery: It will also force the government to appoint more judges to the Supreme Court for all four zones.

Arguments Given Against Regional Benches

- **Lessen the binding force:** It will dilute the sacrosanct nature of the Supreme Court and lessen the binding force of the decisions of the Supreme Court.
- **Infrastructure cost**: The huge infrastructural cost of setting up these regional benches will further be a loss of money and human resources.



BHARAT RATNA: INDIA'S HIGHEST CIVILIAN AWARD

The Centre announced Bharat Ratna Context: for former Prime Ministers PV Narasimha Rao and Chaudhary Charan Singh, alongside agricultural scientist MS Swaminathan. Earlier Karpoori Thakur and Lal Krishna Advani were announced to be conferred with India's highest civilian award.

What is Bharat ratna?

♦ The Bharat Ratna is the highest civilian award of the Republic of India.



- Instituted on 2 January 1954, this prestigious award is conferred in recognition of "exceptional service/ performance of the highest order", without distinction of race, occupation, position, or gender.
- Initially limited to achievements in the arts,

literature, science, and public services, the criteria were expanded in December 2011 to include "any field of human endeavor".

- Recommendations for the award are made by the Prime Minister to the President.
- Recipients receive) a Sanad (certificate) signed by the President and a peepal leaf-shaped medallion, with no monetary grant associated with the honor.
- The Bharat Ratna recipients rank seventh in the Indian order of precedence.

Brief background

- The first recipients of the Bharat Ratna in 1954 were:
 - ➤ C. Rajagopalachari, former Governor-General of the Union of India
 - > Sarvepalli Radhakrishnan, former President of the Republic of India
 - ➤ C. V. Raman, Indian physicist
- Since then, the award has been bestowed upon 53 individuals, including 18 posthumous awardees. Notably, it was amended in January 1966 to allow posthumous awards, honoring former Prime Minister Lal Bahadur Shastri as the first individual to receive this distinction after their passing.
- The Bharat Ratna has been conferred on one naturalized citizen (Mother Teresa) and two non-
 - ➤ Abdul Ghaffar Khan (born in British India, later a citizen of Pakistan)
 - Nelson Mandela (a citizen of South Africa)

Contribution and profile of persons conferred Bharat Ratna 2024

BHARAT RATNA AWARDEES

Karpoori Thakur (Posthumous) (politician and former Bihar chief minister) (1924-1988)



IMPORTANT CONTRIBUTIONS

- Karpoori Thakur, a distinguished Indian political figure, served as the Chief Minister of Bihar.
- His legacy is etched in Bihar's political landscape.
- Thakur championed social justice, implementing measures such as reservations in education and jobs.
- He was popularly known as referred to as 'Jan Nayak' (people's leader).



Lal Krishna Advani (politician and former deputy prime minister) (1927)



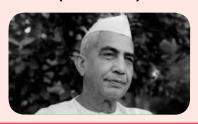
- Lal Krishna Advani, a stalwart in Indian politics, played a pivotal role in shaping the Bharatiya Janata Party (BJP).
- Advani served as both the home minister and deputy Prime Minister under the leadership of Atal Bihari Vajpayee from 1999 to 2004.
- Advani's political journey spans decades, reflecting his unwavering commitment to conservative values.

Pamulaparthi Venkata Narasimha Rao (Posthumous) (former Prime Minister of India) (1921-2004)



- PV Narasimha Rao, the 9th Prime Minister of India, led the country through significant economic reforms and global changes.
- His pragmatic approach and ability to make tough decisions earned him praise, albeit sometimes controversial.
- Rao's tenure marked a crucial juncture in India's economic trajectory, leaving a lasting impact on the nation's development.

Chaudhary Charan Singh (Posthumous) (former Prime Minister of India) (1902 - 1987)



- Chaudhary Charan Singh, a prominent political figure, served as the Prime Minister of India.
- He staunchly advocated for farmers' rights and rural development.
- His legacy resonates through his unwavering commitment to the agrarian community.
- Singh's contributions continue to shape policies and discussions related to agriculture in India.

Mankombu Sambasivan Swaminathan (Posthumous) (agriculture scientist) (1925-2023)



- Dr. Monkomb Sambasivan Swaminathan, fondly known as the 'Father of the Green Revolution', played a pivotal role in transforming Indian agriculture. His monumental contributions to our nation include:
- **Self-Reliance in Agriculture:** Dr. Swaminathan's visionary leadership helped India achieve self-reliance in agriculture during challenging times.
- Modernization of Indian Agriculture: He made outstanding efforts towards modernizing Indian agriculture, ensuring food security and prosperity.
- Innovator and Mentor: Dr. Swaminathan encouraged learning and research among students, leaving an indelible mark on agricultural science.
- International Influence: He served as the Independent Chairman of the Food and Agricultural Organisation Council, President of the International Union for the Conservation of Nature and Natural Resources, and President of the World Wide Fund for Nature (India).
- Director General of Indian Council of Agricultural Research (ICAR): His tenure at ICAR furthered agricultural research and development.

WEEKLY

A tribute to agricultural titans:

Chaudhary Charan Singh (1902-1987)

- Born in a small village of Nurpur in the Meerut district of Uttar Pradesh, Chaudhary Charan Singh went on to serve the nation as the 5th Prime Minister. He played a pivotal role in uplifting the most important strata of our society- farmers.
- Known for his advocacy of peasant rights and agrarian reforms, Charan Singh played a significant role in shaping India's agricultural policies and championing the cause of farmers.
- ♦ Tenure as PM: He served as the Prime Minister of India for a brief period from July 1979 to January
 - Addressing challenges of agriculture: Charan Singh's tenure as Prime Minister in 1979 was marked by efforts to address the challenges facing India's agricultural sector, including inflation, food shortages, and farmer grievances.
 - > Despite the brevity of his term, he introduced several measures aimed at alleviating the plight of farmers, such as
 - Loan waivers
 - Price support mechanisms
 - ➤ Agricultural subsidies
- ♦ His efforts led to the enactment of crucial land reform bills, such as the **Department Redemption** Bill of 1939 and the Land Holding Act of 1960, which aimed to address issues of land distribution and agricultural sustainability.
- ♦ He was a staunch advocate of land reforms, tenant rights, and equitable distribution of agricultural resources
- ♦ His dedication to the welfare of farmers earned him the title of 'Kisan Leader' or 'Champion of Farmers.'
- ♦ He passed away in May 1987, leaving behind a lasting legacy as a champion of farmers' rights and a stalwart defender of agrarian interests.
- Reservation for Sons of Cultivators
- Reservation: Chaudhary Charan Singh in a document titled 'Why 60% of Services Should Be Reserved for Sons of Cultivators' advocated on guaranteeing representation for the "sons or dependents of the actual tillers of the soil" in government jobs and seats in publicly-funded educational institutions.
- Singh was Union home minister in the Morarji Desai government that appointed the Backward Classes Commission under B.P. Mandal in January 1979.

Its report submitted in December 1980 led to the announcement of 27% reservations for OBC (other backward classes) communities, in addition to the existing 22.5% for Scheduled Castes and Scheduled Tribes (SC/ST), in August 1990.

M.S. Swaminathan (1925-2023)

- Mankombu Sambasivan Swaminathan (M.S. Swaminathan), is known as the Father of Green Revolution in India.
- ♦ Born in Kumbakonam on August 7, 1925 to M.K. Sambasivan, a surgeon, and Parvati Thangammal, Swaminathan had his schooling there.
- ♦ His keen interest in agricultural sciencecoupled with his father's participation in the freedom movement and Mahatma Gandhi's influence inspired him to pursue higher studies in the subject.
- **♦ Important Positions held by M.S. Swaminathan:**
 - ▶ In 1954, Dr. Swaminathan joined the Central Rice Research Institute (CRRI), Cuttack and later, IARI.
 - In 1966, he became IARI Director, the post he held till 1972.
 - ▶ He became Director General of the Indian Council of Agricultural Research (ICAR).
 - ▶ In 1979, he was made the Principal Secretary, Union Ministry of Agriculture and Irrigation.
 - In 1980, he was appointed Member (Agriculture, Rural Development, Science and Education), Union Planning Commission, and, for a few months, he served as the Deputy Chairman of the body.
 - Swaminathan was a nominated member of the Rajya Sabha from 2007 to 2013.

Swaminathan Commission

- In 2004, the Union government made Dr. Swaminathan chairman of the National Commission on Farmers.
- The panel submitted five reports in two years to the Centre. Its main recommendation was that minimum support price should be at least 50% more than the weighted average cost of production.
- Awards & Recognition: Swaminathan was a recipient of the Padma Shri in 1967. He was chosen for the Ramon Magsaysay award for community leadership in 1971. He was awarded the Padma Bhushan in January 1972.
 - ➤ In 1987, he became the first to get the **World Food Prize** and the first foreigner to receive the **Golden Heart Presidential Award of Philippines.**



The first **World Agriculture Prize**, instituted by the Indian Council of Food and Agriculture, was given to him in October 2018.

What is the role of Dr. Swaminathan in Green **Revolution?**

- ♦ Background: In 1960s, India was on the verge of a mass famine.
- Green Revolution turned the northern states of Punjab and Haryana into breadbasket for wheat and rice production, helping low-income farmers.
- Swaminathan worked closely with two Union Agriculture Ministers, C. Subramaniam (1964-67) and Jagjivan Ram (1967-70 & 1974-77) for the success of the 'Green Revolution'.
- Swaminathan along with Norman Bolaug and other scientists developed high-yielding varieties (HYV) of wheat and later, promoted sustainable development which he called, the 'evergreen revolution'.
- ♦ Green Revolution paved the way for quantum jump in productivity and production of wheat and rice through adaptation of chemical-biological technology.



THE DEBATE OVER "SOCIALIST" AND "SECULAR" IN PREAMBLE

Context: In a public interest litigation filed seeking to delete the words "Socialist" & "Secular" from the Preamble to the Constitution of India, the Supreme Court asked if the Preamble could have been amended while keeping the date intact. It has sparked a significant legal and constitutional debate.

The Amendment (in discussion)

- ♦ The words 'Socialist' and 'Secular' were inserted in the Preamble of the Constitution under the 42nd Constitutional amendment moved by the Indira Gandhi government in 1976.
- The amendment changed the description of India in the Preamble from a "sovereign, democratic republic" to a "sovereign, socialist, secular, democratic republic.
- However, the insertion of these terms was not without controversy. Critics argued that it was a departure from the original vision of the Constitution's framers.

Preamble

- The Preamble to the Indian Constitution serves as a concise statement of the fundamental principles and objectives that guide the nation.
- Adopted on November 26, 1949, it outlines the aspirations of the Indian people and sets the tone for the entire constitutional framework.
- The Preamble declares India to be a sovereign, socialist, secular, democratic, and republic nation.
- Amendment: As per Article 368 of the Constitution of India, the Preamble of the Constitution of India can be amended.

Key Words in the Preamble

Sovereign:

The term 'Sovereign' which is proclaimed by the Preamble means that India has its own independent authority and it is not a dominion of any other external power. In the country, the legislature has the power to make laws which is subjected to certain limitations.

Socialist:

The term 'Socialist' was added in the Preamble by 42nd Amendment, 1976 which means the achievement of socialist ends through democratic means. It is basically a 'Democratic Socialism' that holds faith in a mixed economy where both private and public sectors co-exist side by side.

Secular:

The term 'Secular' was incorporated in the Preamble by 42nd Constitutional Amendment, 1976 which means that all the religions in India get equal respect, protection and support from the state.

Democratic:

The term 'Democratic' implies that the Constitution of India has an established form of Constitution which gets its authority from the will of the people expressed in an election.

Republic:

The term 'Republic' indicates that the head of the state is elected by the people directly or indirectly. In India, the President is the head of the state and he is elected indirectly by the people.

Petitioner's contention

- ♦ The petitioner has contended that Preamble cannot be altered, varied, or repealed.
- ♦ He says that the Preamble not only indicated the essential features of the Constitution but also the fundamental conditions based on which it was adopted to create a unified integrated community.



Basic Structure Doctrine

- The Constitution of India defines its 'basic structure' in terms of federalism, secularism, fundamental rights and democracy.
- The Indian Constitution, a dynamic document, can be amended by the Parliament as needed.
- Article 368 grants the power to amend the Constitution, but the doctrine of basic structure ensures that this power is not misused.
- The idea is to safeguard the core principles of the Constitution, preserving its identity.

Timeline for Evolution of Basic Structure

Pre-Golak Nath Era

- In 1951, the Constitution was amended to introduce Article 31A and 31B. Article 31B created the 9th Schedule, which shielded laws from challenges based on Fundamental Rights violations.
- A petition challenged Article 31A and 31B, arguing that they abridged rights guaranteed under Part III of the Constitution. The Supreme Court had to decide whether these provisions were void under Article 13(2).

Golak Nath v. State of Punjab (1967)

- The Supreme Court initially held that no part of the Constitution could be amended.
- This stance changed in the landmark case of Kesavananda Bharati v. State of Kerala (1973).

Kesavananda Bharati v. State of Kerala (1973)

- In this pivotal case, a Constitutional Bench ruled by a 7-6 verdict that Parliament could amend any part of the Constitution as long as it did not alter the basic structure.
- The judgment established the basic structure doctrine and outlined the immutable features of the Constitution.

Supreme Court's Views

♦ The Supreme Court judge asked the counsels to consider, from an academic point of view, if the Preamble could have been amended earlier (by the 42nd Amendment Act in 1976) to include the words Socialist and Secular while keeping the date of adoption (November 29, 1949) intact.

Arguments for Removal

- ♦ Historical and Cultural Essence: The petitioners contend that the addition of "socialist" and "secular" disrupts the historical and cultural essence of India. They argue that the original Preamble, as drafted by the Constituent Assembly, did not include these terms.
 - ➤ The Constituent Assembly, led by Dr. B.R. Ambedkar, deliberately chose not to include "secular" in the Preamble during the drafting process. The omission was a conscious decision, reflecting the diverse religious fabric of India.
- ♦ Violation of Fundamental Rights: The petitioners assert that the inclusion of "socialist" and "secular" infringes upon the fundamental rights guaranteed by the Constitution.
- Freedom of speech, expression, and religion are fundamental rights enshrined in the Constitution. Critics argue that the insertion of these terms may

- restrict these rights by imposing a specific ideological framework.
- Parliament's Authority: While Parliament has the power to amend the Constitution, altering the Preamble raises unique challenges. Unlike other provisions, the Preamble is considered part of the Constitution's basic structure.

Arguments for Retention

- **♦ Changing Socio-Economic Realities:** Supporters of retaining "socialist" argue that it reflects the changing socio-economic realities of India. The country has made significant strides in reducing poverty and promoting social welfare. The term "socialist" underscores the commitment to equitable distribution of resources and social justice.
- ♦ Secularism as a Foundational Principle: The insertion of "secular" reinforces India's secular character and commitment to religious harmony.
- **♦ Judicial Review and Basic Structure Doctrine:** Subramanian Swamy's petition highlights that the Preamble not only formed the essential features of the Constitution but also the fundamental conditions based on which various groups and interests adopted the Constitution with the hope to create one unified integrated community. The Preamble, being an integral part of the Constitution, may fall within this protected zone.





ESCALATING HUMAN-ANIMAL CONFLICT IN KERALA

Context:

Wayanad is on the boil after a radiocollared wild elephant chased a 47-year-old man and trampled him to death, inside a gated property in a residential area. The tragedy brings to attention escalating human-animal conflict in the state.

Why human-wildlife conflict takes place in Kerala?

♦ Large forest area: Forest covers nearly 30% of the State's geographical area.

Wayanad 's forests are a part of a greater forested area comprising Nagarhole Tiger Reserve, Bandipur National Park, and BR Tiger Reserve in Karnataka, and Mudumalai Tiger Reserve and Sathyamangalam Forest in Tamil Nadu.

- Human settlements in close proximity to forests: For a relatively small State with an average width of just around 70 km and a population of more than 3.46 crore, this means numerous densely populated human settlements are located close to protected forest regions.
- Agricultural plantation near wildlife habitat: Moreover, a large number of agricultural plantations too lie near wildlife habitats.
- **♦ Other reasons:**
 - ➤ **significant increase** in the population of animals like elephants and tigers due to conservation efforts
 - ➤ **substantial increase** in the population of prolific breeders like wild boars and peacocks
 - habitat depletion and fragmentation caused by human activities
 - ➤ invasive alien species have reduced the availability of food and water
 - movement of livestock and humans in wildlife habitats during odd hours

How severe is this conflict?

- In recent years, Kerala has seen a sharp increase in the number of such incidents with those living near forest fringes suffering crores of rupees worth of damage to livelihood.
- ♦ Government data for 2022-23 recorded 8,873 wild animal attacks, of which, 4193 were by wild elephants,

1524 by wild boars, 193 by tigers, 244 by leopards, and 32 by bison. Of 98 reported deaths, 27 were due to elephant attacks.



- Beyond posing risk to humans, these attacks also devastated Kerala's agriculture sector.
- From 2017 to 2023, there were 20,957 incidents of crop loss due to wild animal raids which also killed 1,559 domestic animals, mainly cattle.
- Wild elephants were involved in the highest number incidents in the State. Pachyderms were responsible for 14,611 incidents recorded between 2013-14 and 2018-19.
- Wild boars (5,518), bonnet macaques (4,405) and snakes (2,531) are the others in this category.
- Elephants, bonnet macaques and wild boars have caused the most damage to farmers residing in forest fringe areas.
- Herbivores such as sambar, spotted deer and gaur too have contributed significantly to crop damage.

How Kerala is addressing the issue?

- The state has several schemes meant to prevent animals from entering human settlements. These include
 - schemes for the construction of elephant-proof trenches
 - elephant-proof stone walls
 - solar powered electric fencing
- ♦ To keep animals in forests, Kerala has also undertaken eco-restoration programmes. The state is also running a scheme to acquire land from farmers, to be then converted into forestland.
- In areas which see the highest incidence of humananimal conflict, 15 Rapid Response Teams have also been established — eight permanent, and seven temporary. 25 new RRTs will be established in the coming years.





Government Measures:

- National Human-Wildlife Conflict Mitigation Strategy and Action Plan of India: It is a guiding document facilitating a holistic approach to mitigate human-wildlife conflict (HWC), in an inclusive and sustainable manner.
- **Project Elephant:** The scheme aimed at protecting and conserving elephants and their habitats in the country. It was launched in 1992.
- **Elephant reserves:** Elephant Reserve is a management entity notified by the State Governments as per the recommendation of the Government of India.
 - ➤ There are 33 elephant reserves in India. Dandeli Elephant Reserve in Karnataka, Singphan Elephant Reserve in Nagaland, Agasthiyamalai Elephant Reserve in Tamil Nadu and Terai Elephant Reserve (Uttar Pradesh) are the most recent additions to India's Elephant Reserves.
- Compensatory Afforestation Fund Act, 2016: It also assisted to develop wildlife habitats, establishing animal rescue centers, etc.
- Monitoring of Illegal Killing of Elephants (MIKE) **Programme** - Mandated by the Conference of Parties (COP) resolution of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).



THE UNTAPPED POTENTIAL OF STEM CELLS IN MENSTRUAL BLOOD

Context:

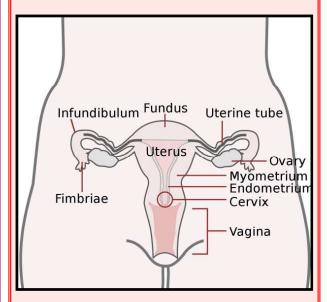
Stem cells in menstrual blood are found to have thrilling potential for health, including diagnosing endometriosis.

Which blood cells are present in menstrual blood?

- ♦ Endometrial stem cells can be obtained noninvasively from menstrual blood and are referred to as menstrual blood-derived stem cells.
- ♦ MenSC were first identified from menstrual blood in 2007.
- ♦ These menstrual stem cells could offer several advantages.
 - ➤ They come from a source that's easy to obtain from women.
 - They could be used to treat patients without the fear of tissue rejection.

Endometrium

Endometrium lines the inside of the uterus.



- The endometrium has a deeper basal layer that remains intact, and an upper functional layer that sloughs off during menstruation.
- During a single menstrual cycle, the endometrium thickens as it prepares to nourish a fertilised egg, then shrinks as the upper layer sloughs away.

Important Role:

- ➤ It play a vital role in repairing and regenerating the upper layer of tissue that gets shed each month during menstruation.
- ➤ This layer is crucial to pregnancy, providing support and nourishment for a developing embryo.
- ➤ The layer, and the endometrial stem cells that prod its growth.
- ▶ It also appears to play an important role in infertility.

What are Stem Cells?

- A stem cell is a cell with the unique ability to develop into specialized cell types in the body.
- ♦ These cells provide new cells for the body as it grows, and replace specialized cells that are damaged or lost.
- ♦ In the future, they will be used to replace cells and tissues that have been damaged or lost due to
- Human body is made up of numerous types of cells.
- ♦ Most cells are specialized for particular functions, like the red blood cells that carry oxygen in our bodies through the blood, but they are unable to divide.





- All stem cells regardless of their source have three general properties:
 - ➤ They are capable of dividing and renewing themselves for long periods
 - > They are unspecialized
 - ➤ They can give rise to specialized cell types

Embryonic stem cells vs Adult stem cells

- Stem cells come from two main sources: embryos or adult tissues.
- **Embryonic stem cells** can give rise to virtually any cell type in the body, but they are controversial because conventional procedures for obtaining them involve the destruction of an embryo.
- Adult stem cells, such as those found in bone marrow, do not pose the same ethical concerns, but they have limited powers and collecting them can require invasive procedures.



NAVIGATING THE ETHICAL FRONTIERS OF CRISPR

Context:

The first gene editing technology securing approval for the treatment of sickle cell anemia and beta-thalassemia utilise the Nobel-winning CRISPR/Cas 9 genome. However, the success of this technology hinges on a sufficient commitment to integrating ethics into its application.

The approved gene therapies

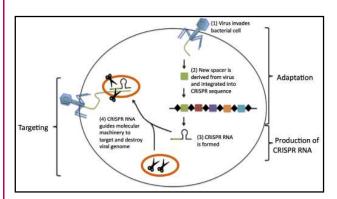
- Casgevy and Lyfgenia, the two cell-based gene therapies approved by the Food and Drug Administration (FDA) for sickle cell anemia treatment and beta-thalassemia.
- They utilise the Nobel-winning CRISPR/Cas 9 genome editing technology.
 - Casgevy, a cell-based gene therapy, is approved for the treatment of sickle cell disease in patients 12 years of age and older with recurrent vasoocclusive crises. Casgevy is the first FDA-approved therapy utilizing CRISPR/Cas9, a type of genome editing technology.
 - ➤ Lyfgenia is a cell-based gene therapy. Lyfgenia uses a lentiviral vector (gene delivery vehicle) for genetic modification and is approved for the treatment of patients 12 years of age and older with sickle cell disease and a history of vaso-occlusive events.

What is Sickle cell Anemia?

- Sickle-cell anemia (SCA) is an inherited disorder where red blood cells contort to a sickle or crescent shape because of defective hemoglobin, restricting its ability to carry oxygen.
- Over 20 million people live with SCA in India and it is predominantly seen in the scheduled tribes (ST) and scheduled caste (SC) populations where the majority are economically backward.
- The Sickle Cell Anemia Elimination Mission launched in India on 1st July 2023 aims to strengthen the existing healthcare system and improve primary, secondary, and tertiary healthcare teams.

What is CRISPR?

- CRISPR stands for Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), a hallmark of a bacterial defense system.
- Simply put, CRISPR is a technology that can be used to edit genes

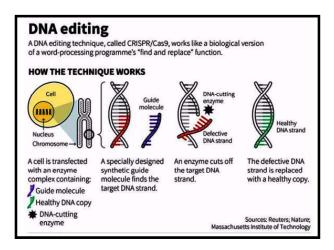


How CRISPR works?

- ♦ The CRISPR-Cas9 system consists of two key molecules that introduce a change (mutation) into the DNA. These are:
- An enzyme called Cas9. This acts as a pair of 'molecular scissors' that can cut the two strands of DNA at a specific location in the genome so that bits of DNA can then be added or removed.
- A piece of RNA called guide RNA (gRNA). This consists of a small piece of pre-designed RNA sequence (about 20 bases long) located within a longer RNA scaffold. The scaffold part binds to DNA and the pre-designed sequence 'guides' Cas9 to the right part of the genome. This makes sure that the Cas9 enzyme cuts at the right point in the genome.
 - The guide RNA is designed to find and bind to a specific sequence in the DNA. The guide RNA has RNA bases that are complementary to those of the target DNA sequence in the genome. This

means that the guide RNA will only bind to the target sequence and no other regions of the genome.

- The Cas9 follows the guide RNA to the same location in the DNA sequence and makes a cut across both strands of the DNA.
- At this stage the cell recognises that the DNA is damaged and tries to repair it.
- Scientists can use the DNA repair machinery to introduce changes to one or more genes in the genome of a cell of interest.



What are the issues?

- Access and Affordability: CRISPR-based therapies are expensive to develop and administer.
- ♦ **Inequities:** Disparities in healthcare infrastructure and resources can lead to unequal distribution. Developing countries may struggle to afford or implement CRISPR therapies, perpetuating existing health inequalities.
- ♦ Global Disparities: While CRISPR research and clinical trials occur worldwide, the benefits may not reach all populations equally. High-income countries often lead in scientific advancements, leaving lowincome nations lagging behind.

What are the ethical concerns in CRISPR applications?

♦ **Off-Target Effects:** CRISPR-Cas9 can inadvertently

- edit unintended regions of the genome. These offtarget effects pose risks, especially when applied to human embryos or germline cells.
- Ensuring precision and minimizing off-target effects is critical to prevent unintended consequences.
- ♦ Germline Editing: Editing the genes of embryos or germline cells affects future generations. Ethical debates surround the permanence and unforeseen consequences of germline modifications.
 - Balancing the potential benefits with long-term risks requires thoughtful consideration.
- **♦ Designer Babies:** The ability to select specific traits (e.g., intelligence, appearance) raises ethical questions. Should we use CRISPR to create "designer babies" with predetermined genetic features?
 - Striking a balance between medical necessity and ethical boundaries is essential.
- Informed Consent: **Patients** and research participants must fully understand the risks, benefits, and uncertainties of CRISPR therapies.
 - Informed consent becomes complex when applied to germline editing or vulnerable populations.
- **Equity in Clinical Trials:** Ensuring representation in clinical trials is crucial. Historically, marginalized communities have been underrepresented.
 - Addressing biases and promoting inclusivity in research is essential for equitable outcomes.
- ♦ Dual-Use Dilemma: CRISPR technology has dualuse potential: it can be used for both therapeutic and harmful purposes (e.g., bioterrorism).

Regulatory Framework in India

- CRISPR research in India is governed by existing legal and regulatory frameworks.
- ♦ Gene Therapy Products (GTPs), including those developed through CRISPR, undergo thorough approval processes by regulatory bodies like the CDSCO.
- Ethical guidelines and oversight by committees such as RCGM and GEAC ensure adherence to ethical standards in biomedical research.







IAS-2024

PRELIMS SAMPOORNA

EARLY

CURRENT AFFAIRS **REVISION CLASS**



PROGRAM FEE: ₹**4,000** (+ GST)

COMBO-1 PRELIMS CRASH COURSE CURRENT AFFAIRS **CLASSES** ₹**8,000** (+ GST)

COMBO-2 PRELIMS CRASH COURSE **CURRENT AFFAIRS CLASSES MOCK TEST SERIES** ₹10.000 (+ GST)

CLASSROOM & ONLINE PROGRAMME

for Complete Revision of Prelims 2024 **Current Affairs**



8448496262



iasscore.in

Section B [SPECIALS]

Topic

S Energizing India's Future: Collaborations, Commitments, and Clean Energy





ENERGIZING INDIA'S FUTURE: COLLABORATIONS, COMMITMENTS, AND **CLEAN ENERGY**

Context:

The government announced the establishment of a Centre for Energy Transition in collaboration with The Energy and Resources Institute (TERI) at the 23rd World Sustainable Development held in New Delhi. This centre aims to lead the way in sustainable energy transition and innovation in renewable energy.

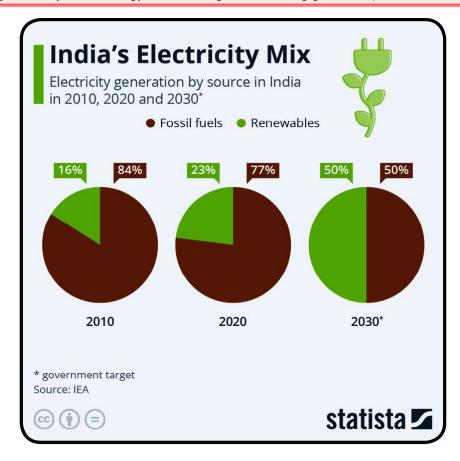
What is the current share of renewable energy?

♦ India ranks fourth in renewable energy installed capacity after China, the US and Brazil and third in renewable energy attractiveness after China and the US.

Fossil fuels, including coal, continue to make up 75% of India's power supply.

- ♦ The share of renewable energy (wind, solar and other RE) increased to 30.1% in 2023 compared to 27.5% in 2022 with the share of coal-based power plants decreasing from 51.1% to 49.3%, marking a change in the energy supply mix.
- 44% of the nation's power generation capacity stems from non-fossil-fuel sources.
- With over 180 GW of renewable capacity out of a total of 427 GW, India stands at the forefront of renewable energy adoption.
- In its updated nationally determined contribution (NDC) to the United Nations Framework Convention on Climate Change submitted in 2022, India put forth its goal of 50% installed power capacity from non-fossil sources.
 - Already India's non-fossil (including hydro and nuclear) installed capacity is around 43% of total installed

India has surpassed its nationally determined contributions (NDCs) well ahead of schedule, positioning itself as the only major country whose energy transition aligns with limiting global temperature rise to sub-2 degrees.



| MAJOR TYPES OF RENEWABLE ENERGY | | | |
|---------------------------------|--|--|--|
| Wind | Wind turbines use large rotor blades, mounted at tall heights on both land and sea, to capture the kinetic energy created by wind. | | |
| Solar (Photovoltaic) | Solar technologies capture light or electromagnetic radiation from the sun and convert it into electricity. Photovoltaic (PV) solar cells contain a semiconductor wafer, positive on one side and negative on the other, forming an electric field. When light hits the cell, the semiconductor absorbs the sunlight and transfers the energy in the form of electrons. These electrons are captured by the electric field in the form of an electric current. | | |
| Geothermal | Geothermal energy originates straight from the Earth's core—heat from the core boils underground reservoirs of water, known as geothermal resources. | | |
| Hydropower | Hydropower plants channel the kinetic energy from flowing water into electricity by using a turbine generator. | | |
| Biomass | Biomass—organic material like wood, dry leaves, and agricultural waste—is typically burned but considered renewable because it can be regrown or replenished. | | |

What is the need to transform the energy sector?

Energy transition refers to the energy sector's shift from fossil-based systems of energy production and consumption — including oil, natural gas and coal — to renewable energy sources like wind and solar.

- The world is at a decisive moment in the fight against climate change.
- India has the third largest energy demand in the world, with over 70% of its production coming from thermal power (primarily from coal, but also lignite, diesel and gas).
- India comprises 17% of the global population, while it is only responsible for only 3% of cumulative global carbon emissions.
- The share of renewable and non-fossil fuel sources has been steadily rising, but is still a small part of the overall
- Given India's growing economy and rising population, its energy needs are expected to quadruple in the coming decades.
- With greenhouse gas (GHG) emissions continuing to rise and average temperatures increasing, achieving net zero emissions by mid-century has become an urgent priority to avoid catastrophic climate impacts.
- ♦ To achieve net zero and limit future warming to 1.5C above pre-industrial levels in line with the Paris Agreement, nothing less than a complete transformation of the global energy system is required.

The net-zero challenge

- In 2021, at the 26th UNFCC Conference of Parties, Prime Minister Narendra Modi committed to achieving the following goals by 2030:
 - ➤ increasing 'non-fossil fuel' energy production to 500 GW
 - ➤ a 50% share of the total power production by renewable energy (RE)
 - ➤ 45% reduction in the economy's carbon intensity
 - ➤ reduction of 1 billion tonnes carbon emissions
- By 2070, India would be 'net-zero' in carbon emissions.





What government is doing for energy transition?

The government has also allocated INR 350 billion in the **Union Budget 2023-24** towards energy transition, and announced a National Electricity Plan.

- Net-Zero Emissions: At the UN Climate Change Conference held in Glasgow (COP26) in 2021, India committed to reaching net-zero emissions by 2070. This commitment was backed with other near-term targets for 2030, including
 - achieving about 50 per cent cumulative electric power-installed capacity from non-fossil fuel-based energy resources
 - ➤ reducing the emissions intensity of its GDP by 45 per cent from the 2005 level
 - ➤ increasing its non-fossil electricity generation capacity to 500 GWs
- Energy Conservation Amendment Act 2022: The government has enacted the Energy Conservation Amendment Act 2022, which amended the Energy Conservation Act, 2001 and introduction of a carbon credit trading scheme.
- National Green Hydrogen Mission: In January 2023, India launched its National Green Hydrogen Mission to support production, use and exports of green hydrogen and its derivatives.
- ♦ PLI Scheme: Recently, the government concluded two tranches of allocations under the Production Linked Incentives (PLI) Scheme for high-efficiency solar photovoltaic (PV) modules.
- ♦ Electricity (Promoting Renewable Energy Through Green Energy Open **Access) Rules 2022**: The rules aim to promote the generation, purchase and consumption of green energy, including from waste-to-energy plants, through improving open access.

Other Government Initiatives for Solar Energy

- Solar Park Scheme
- Atal Jyoti Yojana (AJAY)
- National Solar Mission
- SRISTI Scheme
- International Solar Alliance
- National Framework for Promoting Energy Storage Systems a Viability Gap Funding (VGF) scheme: The scheme aims to boost the set-up of battery energy storage system (BESS) projects.
- ♦ FDI: Foreign investors are allowed to make 100 per cent investments in the renewable energy sector under the automatic route, without requiring prior government approval.
- Push to rooftop solar: Pradhanmantri Suryodaya Yojana is a central government scheme which aims to provide electricity to low and middle-income individuals through solar rooftop installations, along with offering additional income for surplus electricity generation.
- Biomass-Based Schemes: GOBARdhan and SATAT
 - > GOBARdhan: Galvanizing Organic Bio-Agro Resources Dhan aims to convert cattle dung and agricultural residues into biogas, compressed biogas (CBG), and bio-compressed natural gas (CNG). It promotes circular economy principles and contributes to India's climate goals.
 - SATAT: The Sustainable Alternative Towards Affordable

Global Biofuel Alliance (GBA) aims to expand the use of sustainable biofuels across various sectors, with a focus on reducing emissions and promoting cleaner energy alternatives.

Transportation scheme focuses on setting up compressed biogas production plants. It enhances energy security, reduces emissions, and benefits both rural communities and women.

Pitfalls of the energy transition

 Ecological cost: While the commitment to reach 500 GW through 'non-fossil-fuel' and 'renewable' energy sounds positive, a very problematic part of this is that it includes large hydropower and nuclear plants. Both of these have enormous ecological, social and other costs.

Dam bursts in Uttarakhand, northern India, and most recently in Sikkim in north-east India are dramatic testimony to the dangers of massive infrastructure development in the fragile Himalaya.

 Imbalance: 80% of the solar projects are reportedly in only 5 states (Rajasthan, Maharashtra, Gujarat, Karnataka, Andhra Pradesh), creating further imbalances in the benefits that such projects could deliver.



- Effectiveness of EV: Electric vehicles (EVs) are government's top focus. However,
 - **EV** uses electricity produced by coal: Most of the electricity that EV will use is still being generated through coal (as is the case in India), they are hardly clean.
 - Mining concerns: There is increasing concern about the impacts of related mining, e.g. of lithium and cobalt.

In India, lithium reserves have been found in Kashmir. However, it also raises concerns about serious ecological damage and social displacement.

- Increase in coal mining and thermal power: New coal mining blocks continue to be given a green signal, including in some of the country's most biologically diverse and socially sensitive (including indigenous/ Adivasi)
- Unnecessary demand: Over the last few decades, luxury and wasteful demand and use has significantly grown (night-time glitz in India's cities, extra cooling in malls and airports).
- Infrastructural issue Grids powered by renewable energy require a lot more effort to achieve stability in times of disruption than conventional energy sources, which can ramp up or down production as required. India's grid infrastructure requires a significant upgrade to adapt to the intermittent nature of renewable power.
- Operational issues: overloading of transmission lines at certain times, demand-supply disparities, frequency and voltage issues, losses of electricity transmission, a lack of coordination among state-level transmission planners and central planning agencies.
- Managing coal-dependent states: Indian states are highly dependent on coal. Managing the economy of coaldependent states to steady the increasing share of renewable energy of some states is challenging.
- Troubled land acquisition: Land acquisition for large-scale renewable projects is cost-intensive with limited government support.
- ♦ Funding obstacles: Trillions of dollars will be required for transition and flows of green finance are only about a quarter of what is needed now.

Major Renewable Solutions:

- ♦ Solar Power: India's solar power installed capacity was 73.32 GWAC as of 31 December 2023.
- Wind power generation capacity: As of 31 December 2023, the total installed wind power capacity was 44.736 gigawatts (GW), the fourth largest installed wind power capacity in the world.
- Hydrogen energy: India's current hydrogen consumption stands at an estimated 6 mmtpa, with specific figures fluctuating between 5 and 7 mmtpa.
- Nuclear energy: India has over 22 nuclear reactors in 7 power plants across the country which produces 6780 MW of nuclear power.

What measures are required?

- ♦ Power sector: Power generation is India's largest source of GHG emissions because coal provides over 70% of the country's electricity. It is unrealistic to rapidly reduce coal's share in the fuel mix, even with richer countries providing support through initiatives such as the Just Energy Transition Partnership.
 - > Aging and inefficient coal plants can be phased out, while newer plants can be cleaned up to meet more stringent emissions standards.
 - **Deployment of renewables** can also be stepped up significantly by establishing a domestic clean-energy supply
- ♦ **Transport sector:** Decarbonizing the transport sector will likely be more challenging than decarbonizing power. Though the sector has already start by electrifying two- and three-wheelers, which account for about two-thirds of India's petrol demand. Mass transportation can also be fully electrified.

Government Interventions for EV:

- Faster Adoption and Manufacturing of Electric Vehicles (FAME) scheme
- National Electric Mobility Mission Plan (NEMMP)
- National Mission on Transformative Mobility and Battery Storage
- Production Linked Incentive (PLI) scheme
- Vehicle Scrappage Policy
- Go Electric campaign





- Energy efficiency: A nationwide initiative to accelerate energy efficiency could pay significant dividends. Other expanding economies have shown that it is possible to slow growth in energy demand with efficiency measures, which then eases emissions. Energy savings would come from industry, buildings and transportation.
- Streamline demand & finances: National entities like the Solar Energy Corporation of India (SECI) and Indian Renewable Energy Development Agency (IREDA) can adopt the role of aggregator of demand for the sector at large. They can also play a role in supporting the financial process by providing payment security or leading partnerships to enable the same.

As a large developing economy with over 1.3 billion people, India's climate adaptation and mitigation ambitions are not just transformational for India but for the entire planet . India's announcement that it aims to reach net zero emissions by 2070 and to meet fifty percent of its electricity requirements from renewable energy sources by 2030 is a hugely significant moment for the global fight against climate change. India is pioneering a new model of economic development that could avoid the carbon-intensive approaches that many countries have pursued in the past – and provide a blueprint for other developing economies.



Section C [PRELIMS]

To Attempt -

Weekly Current Affairs Test, Visit

www.iasscore.in

- **G** Rafah Border Situation
- US Senate's \$95 billion bill to aid Ukraine
- **Cabinet approves Rs 6,000 crore fishery scheme**
- cs Centre to include ASHA workers in Ayushman Bharat scheme
- PM-SVANidhi boosted annual income of street vendors: Study
- **S** Nazool land

- Os Direct Tax Kitty
- **Centre Rules out MSP Law**
- **GS** Fugitive Economic Offenders
- ്യ Kyasanur Forest Disease (KFD)
- **S** X Chromosome and Autoimmunity
- Mark High-Altitude Pseudo Satellite Vehicle (HAPS)



RAFAH BORDER SITUATION

Context: South Africa asked the World Court to weigh whether Israel's strikes on Rafah, and its intention to launch a ground offensive on the city, breaches

both the U.N. Genocide Convention.

Background

- ♦ The International Court of Justice (ICJ) last month ordered Israel to take all measures within its power to prevent its troops from committing genocide against Palestinians in Gaza, in a case brought by South Africa.
- ♦ Israel has denied all allegations of genocide in connection with its war against Gaza's ruling Palestinian Islamist group Hamas.

Rafah

- Rafah sits on the Gaza-Egypt border.
- On the Palestinian side, it is the name of Gaza's southernmost governorate and its capital city, as well as of the crossing into Egypt's Sinai.



- On the Egyptian side, it is a city in the North Sinai governorate.
- Rafah was already one of the most denselypopulated cities in Gaza before the war begin, housing some 280,000 people within 23 square miles.
- Today, it is bursting at the seams as one of the sole places of refuge in the besieged enclave, now home to some 1.4 million people.

U.N. Genocide Convention

- **♦** The **Genocide Convention** is the **first human rights** treaty in the history of the United Nations, adopted on the eve of the Universal Declaration of Human Rights.
- The Convention calls on all States, and all of us, to maintain vigilance, and push for action to prevent genocide, everywhere.



US SENATE'S \$95 BILLION BILL TO AID UKRAINE

Context: The United States Senate has passed a \$95bn bill with aid for Ukraine, Israel and Taiwan.

What is the Bill?

- Among other priorities, the foreign aid package contains billions of dollars for
 - security aid for Israel
 - humanitarian help for civilians in Gaza, the West Bank, and Ukraine
 - support for Kyiv
- ♦ The bill would open the way for desperately needed funding for Ukraine as it fights Russia's invasion.
 - ➤ The legislation's funds would be used to buy weapons and air defense systems manufactured in the United States, which are deemed critically necessary by the authorities as Russia continues to attack Ukraine.
 - Along with other aid, it contains \$8 billion for the Ukrainian government.
- The bill would also allocate \$9.2 billion for humanitarian aid to Gaza, \$8 billion for Taiwan and allies in the Indo-Pacific to oppose China, and \$14 billion for Israel to fight Hamas.



CABINET APPROVES RS 6,000 CRORE FISHERY SCHEME

Context:

The government announced Rs 6,000 crore scheme in order to formalise the unorganised fisheries sector, facilitate institutional finance to micro and small enterprises and promote acqaculture insurance.

More about the news

♦ The government also decided to extend the **Fisheries**

WEEKLY

Infrastructure Development Fund (FIDF) for another three years up to 2025-26 within the already approved fund of Rs 7,522.48 crore and budgetary support of Rs 939.48 crore.

Fisheries Infrastructure Development Fund (FIDF)

- Established in: 2018-19
- **Nodal Implementing Agency:** National Fisheries Development Board (NFDB), Hyderabad
- FIDF envisages creation of fisheries infrastructure facilities both in marine and inland fisheries sectors and augment the fish production to achieve the target set under the Blue Revolution.

What is this new scheme?

- ♦ The Union Cabinet approved the Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY).
- ♦ PM-MKSSY is central sub-scheme under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).

Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- **Nodal Agency:** Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying
- PMMSY was introduced as part of the 'AtmaNirbhar **Bharat'** package with an investment of **Rs. 20,050** crores, the highest-ever investment in this sector.
- The scheme is being implemented in all States and UTs for a period of 5 years from FY 2020-21 to FY 2024-25.
- The Government has launched the PMMSY for the development of marine & inland fisheries.
- There are provisions of Ban Period Support to fishermen (during the period fishing is not
- The focus is on Islands, Himalayan States, and North-east & Aspirational Districts.
- ◆ Target group: fishermen, fish farmers, fish workers, micro and small enterprises, and fish farmers producers organisations, among others.
- **♦ Objectives:** To formalise the fisheries sector while focusing on micro and small enterprises in all states and Union Territories.
 - It will also address issues of aquaculture crop losses due to disease through insurance and enhance export competitiveness through value addition, value realization and value creation.
- **♦ Funding:** Rs 6,000 crore
 - ➤ About 50 per cent i.e. Rs 3,000 crore will come from public finance including the World Bank and the AFD external financing.

- The remaining 50 per cent is expected from the beneficiaries and private sector.
- Period: four years from 2023-24 to 2026-27 fiscal years

♦ Significance:

- **Employment generation:** The sub-scheme is projected to generate about 1.7 lakh new jobs, with a special emphasis on employing 75,000
- **Opportunities in MSME:** It also aims to generate 5.4 lakh continued employment opportunities in the micro and small enterprises (MSME) value chain.

National Fisheries Digital Platform

- Under PM-MKSSY, 'National Fisheries Digital Platform' will be created to provide 40 lakh small and micro-enterprises work based identities.
- It will also support 6.4 lakh micro-enterprises and 5,500 fisheries cooperatives, providing access to institutional credit.

Fisheries Sector of India

- India is the third largest fish producing country, contributing 8 percent to the global fish production and ranks second in aquaculture production.
- India is the 4th largest exporter of fish and fisheries products.
- ♦ 100% FDI is allowed under the automatic route in pisciculture and aquaculture sector in India.
- Key Policy Decisions
 - ▶ Blue Revolution Scheme
 - ➤ Creation of a new Ministry of Fisheries, Animal Husbandry & Dairying
 - Separate Department of Fisheries with the independent administrative structure
 - ➤ Fisheries Aquaculture Infrastructure and Development Fund (FIDF)
 - Pradhan Mantri Matsya Sampada Yojana (PMMSY)
 - Sagar Parikrama
 - PM Gati Shakti Master Plan



INDIA-MYANMAR FREE **MOVEMENT REGIME (FMR)**

The central government has decided Context: to scrap the India-Myanmar Free Movement Regime (FMR).

Need of the move

- Myanmar is currently under military dictatorship.
- ♦ The country is facing the rebellion of ethnic armed groups and pro-democracy forces.
- ♦ Due to the crisis, there has been a significant influx of people from Myanmar to bordering Indian states.

What is Free Movement Regime between **India and Myanmar?**

- ♦ The FMR came into existence in 2018 as a part of India's Act East policy.
- ♦ It allows cross-border movement up to 16 km without a visa.
- ♦ The agreement was brought to facilitate local border trade, improve access to education and healthcare for border residents, and strengthen diplomatic ties.
- Under the agreement, individuals were also allowed to up to two weeks in the neighbouring country by getting a one-year border pass.

Myanmar Border Sharing

♦ India and Myanmar share a 1,643-km-long porous border which is shared by multiple North Indian states like Mizoram, Manipur, Nagaland, and Arunachal Pradesh.



- ➤ Manipur shares approximately 390 km of a porous border with Myanmar, with only about 10 km fenced as of now.
- ➤ Mizoram has a porous border spanning 510 kilometres with Myanmar.
- Arunachal Pradesh shares a 520-kilometre border with Myanmar
- Nagaland's border with the country spans 215 kilometres.
- Currently, all these states come under FMR.



CENTRE TO INCLUDE ASHA **WORKERS IN AYUSHMAN BHARAT SCHEME**

Contex:

After the Central government announced its decision to include **Accredited Social Health Activists** (ASHAs) and Anganwadi workers and helpers into the free cover for health treatment under Ayushman Bharat Scheme, the Health Ministry has so far received Aadhaar details of 23 lakh anganwadi workers and helpers and over three lakh ASHA workers from various States.

What is Ayushman Bharat scheme?

Ayushman Bharat, Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) provides health coverage up to Rs 5 lakh a family a year to poor and vulnerable families.

The numbers

- In India, currently 55 crore individuals corresponding to 12 crore families are covered under the Ayushman Bharat scheme.
- The government has created approximately 28.45 crore Ayushman cards till December 20, 2023.
- A total of **6.11 crore hospital admissions** amounting to Rs 78,188 crores had been authorised under the scheme, of which 1.7 crore hospitals admissions worth over Rs 25,000 crores have been authorised during the year 2023 (Jan-Dec 2023).
- A total of 26,901 hospitals including 11,813 private hospitals have been empanelled under AB-PMJAY to provide healthcare services to scheme beneficiaries.
- The scheme has ensured gender equity in access to healthcare services with women accounting for approximately 49% of the total Ayushman cards created and approximately 48% of total authorised hospital admissions.

What is the reason behind this decision?

- ♦ The decision to include this group of healthcare workers was announced in the interim Union Budget 2024-25 recently.
- **ASHA programme** is a key component of community processes that has continuously evolved over the last decade and a half.

WEEKLY

♦ ASHA has emerged as the cornerstone of the National Health Mission and the group has been acknowledged for their substantial contribution in improving access to care for communities.

Anganwadi

- Anganwadi is a type of rural mother and child care centre in India.
- They were started in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition.
- A typical Anganwadi center provides basic health care in Indian villages.
- It is a part of the Indian public health care system.
- ♦ ASHAs are also a critical component of the Community platforms like Village Health and Sanitation Committees, Mahila Arogya Samiti and Community Based Planning and Monitoring under National Health Mission.

The numbers

- According to Health Ministry, there were over 13 lakh Anganwadi workers and over 10 lakh anganwadi helpers in the country as on 31st December 2023.
- In its annual **ASHA update 2020-21** it further adds that the country has 9.83 Lakh ASHAs in position against the target of 10.35 lakh across 35 States and UTs (i.e., all except Goa and Chandigarh) making it the world's largest community volunteer programme.



PM-SVANIDHI BOOSTED ANNUAL INCOME OF STREET VENDORS: STUDY

Context: A study that evaluated the impact of the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi), a small working capital loan scheme for street vendors, has found that the first tranche of Rs 10.000 led to an additional annual income of Rs. 23.460 for each beneficiary.

What is PM SVANiDHI?

- ♦ PM SVANiDHI is a special micro-credit facility plan to provide affordable loan of up to Rs. 10,000 to more than 50 lakh street vendors.
- ♦ The scheme is a **Central Sector Scheme** fully funded by Ministry of Housing and Urban Affairs.

- ♦ Eligibility: The Scheme is available to all street vendors engaged in vending in urban areas as on or before March 24, 2020.
 - ➤ It was announced aims to enable street vendors to resume their livelihoods, which have been hit hard due to the national lockdown.
- **♦** Implementing agency: Small **Industries Development Bank of India** is the **technical partner** for implementation of this scheme. It manages the credit guarantee to the lending institutions through **Credit Guarantee Fund Trust for Micro and Small Enterprises.**
- Salient features:
 - > Vendors can avail working capital loan of up to Rs 10,000, which is repayable in monthly instalments within one year.
 - ➤ On timely/early repayment of the loan, an interest subsidy of 7% per annum will be credited to the bank accounts of beneficiaries
 - ▶ Monthly cash back incentive on digital transactions
 - There will be no penalty on early repayment of

What are the other related schemes for street vendors?

- ♦ SVANidhi se Samriddhi: The Ministry has initiated 'SVANidhi se Samriddhi' in 125 Urban Local Bodies. selected for saturation in the first phase. In Phase 1, approximately 35 Lakh Street vendors and their families were covered.
- **♦** The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014: It was enacted to regulate street vendors in public areas and protect their rights.
- National Association of Street Vendors of India (NASVI): NASVI is an organization working for the protection of the livelihood rights of thousands of street vendors across the country.



NAZOOL LAND

Violence erupted in Uttarakhand's Context: Haldwani district after administration conducted a demolition drive at the illegal site of a mosque and madrasa, allegedly on Nazool land, killing five and injuring many more.

What is Nazool land?

♦ Nazool land is owned by the government but most often not directly administered as state property.



- ♦ The state generally allots such land to any entity on lease for a **fixed period**, generally between 15 and 99 years.
- ♦ In case the lease term is expiring, one can approach the authority to renew the lease by submitting a written application to the Revenue Department of the local development authority. The government is free to either renew the lease or cancel it — taking back Nazool land.
- ♦ In almost all major cities of India, Nazool land has been allotted to different entities for a variety of different purposes.
- ♦ Usage: The government generally uses Nazool land for public purposes like building schools, hospitals, Gram Panchayat buildings, etc.
- ♦ **Legislation:** The Nazool Lands (Transfer) Rules, 1956 is the law mostly used for Nazool land adjudication.

Emergence of Nazool land

- During British rule, kings and kingdoms which opposed the British frequently revolted against them, leading to several battles between them and the British Army.
- Upon defeating these kings in battle, the British would often take their land away from them.
- After India got Independence, the British vacated these lands. But with kings and royals often lacking proper documentation to prove prior ownership, these lands were marked as **Nazool land** — to be owned by the respective state governments.

FUNCTIONING OF 17TH LOK SABHA

Context:

The average annual sitting days of the first Lok Sabha, with Prime Minister Jawaharlal Nehru as the leader of House, was 135 days, and the 17th Lok Sabha, which concluded recently only for 55 days on average in a year.

The Data

The data is based on a statistical study of the Parliament between June 2019 to February 2024 by the non-profit PRS Legislative Research.

- The 17th Lok Sabha held 274 sittings and the four previous Lok Sabhas, all of which were dissolved before the stipulated five-year period, had fewer sittings.
- Out of the five years, Parliament sat for the lowest number of days (33 in total) in 2020.

- Less discussion, more bills: According to the study, 58% of Bills were passed within two weeks of their introduction.
 - ▶ The J&K Reorganisation Bill, 2019 and the Women's Reservation Bill, 2023 were passed within two days of their introduction.
 - 35% of Bills were passed with less than an hour of discussion in Lok Sabha. The corresponding figure for Rajya Sabha was 34.
- ♦ Less bills for scrutiny: Only 16% of the Bills were referred to Standing Committees for Parliamentary scrutiny.
- ♦ Private Members' Bills (PMB): In all, 729 PMBs were introduced in the 17th Lok Sabha, which is higher than all the previous Lok Sabhas except the 16th. However, only two of them were discussed.
 - ▶ During the same period, 705 PMBs were introduced in Rajya Sabha, and 14 were discussed.
 - Till date, only 14 PMBs have been passed and received assent. None have been passed in both Houses since 1970.
- No Deputy Speaker: The 17th Lok Sabha was the first ever to function without a Deputy Speaker, a constitutionally mandated position.

Article 93 of the Constitution requires that the Lok Sabha elect a Speaker and a Deputy Speaker as soon as possible.



INDIA'S UPI AND RUPAY CARD **SERVICES GO GLOBAL**

Context: Prime Minister Narendra Modi along with President of Sri Lanka and Prime Minister of Mauritius jointly inaugurated the Unified Payments Interface (UPI) services in Sri Lanka and Mauritius.

What is UPI?

- ♦ Unified Payment Interface (UPI) is an advanced version of the Immediate Payment Service (IMPS). It facilitates real-time, round-the-clock funds transfer between bank accounts.
- ♦ UPI merges multiple bank accounts into a single mobile application, allowing users to seamlessly transact across participating banks.
- Its simplicity, security, and interoperability have made it a game-changer in the digital payments ecosystem.

Key Features and Benefits:

- Instant Transactions: UPI enables lightning-fast transactions. Whether you're splitting a restaurant bill or paying utility bills, UPI ensures near-instant settlements.
- Mobile-Centric: UPI thrives on mobile devices. A simple app or USSD code (*99#) connects users to their bank accounts. No need for physical cards or cumbersome paperwork.
- 24x7 Availability: UPI doesn't take weekends off. It operates round the clock, making it convenient for users with varying schedules.
- Security Measures: UPI employs robust security features like two-factor authentication, PINs, and biometrics. Users can transact confidently, knowing their money is safe.
- Seamless Integration: UPI integrates effortlessly with various services: bill payments, online shopping, and even donations. QR codes simplify merchant payments.

Impact on Financial Inclusion:

- UPI has democratized digital payments:
 - ➤ Rural Empowerment: Even in remote villages, vendors accept UPI payments. Farmers, artisans, and small businesses benefit.
 - ➤ **Financial Literacy:** UPI encourages financial literacy. People learn about banking, digital security, and budgeting.

Impact

- ♦ 100 Billion Transactions: UPI handled over 100 billion transactions last year.
- ♦ **GEM Trinity:** Bank accounts, Aadhar, and mobile phones facilitated transactions worth Rs 34 lakh crores (approx. 400 billion USD).



DIRECT TAX KITTY

t: India's net direct tax collections picked up pace over the past month to rise 20.25% year-on-year by February 10, compared to a 19.4% uptick on the same date in January, as per data released by the Finance Ministry.

Data

Net direct tax is calculated by deducting refunds from gross tax inflows

- From Rs 14.7 lakh crore on January 10, net direct tax collections, had hit Rs 15.6 lakh crore by Saturday, constituting 80.23% of the revised estimates for direct taxes for this year.
- Personal Income vs Corporate Income: Growth in the Personal Income Tax (PIT) revenues continued to outstrip Corporate Income Tax (CIT), with a 26.91% uptick in net PIT collections vis-à-vis a 13.6% rise in CIT inflows so far this year.

PERSONAL INCOME TAX

- Income from Salary
- Income from House Property
- Income from Profits and Gains of Business or Profession
- Income from Capital Gains
- Income from Other Sources
- Revenue collection from direct taxes in 2023-24 is set to surpass the budgetary estimate by Rs 1.22 lakh crore.
- Indirect Tax collection: Not just direct taxes, there has been buoyancy in indirect tax collections as well. Revenue collection from Goods and Services Tax (GST) soared to Rs 16.69 lakh crore in the first 10 months of the current financial year, which is 11.6% higher when compared with the collection during the same period last year.

Interim Budget for 2024-25

♦ In the interim budget, the government increased the **direct tax revenue target** for the current

CORPORATE INCOME-TAX (CIT)

• Income-tax paid by domestic companies, and foreign companies on their income

financial year to Rs 19.45 lakh crore from the original budgetary estimate of Rs 18.23 lakh crore.



CENTRE RULES OUT MSP LAW

Context: The ongoing farmer protests in India have once again brought the issue of Minimum Support Price (MSP) to the forefront. As farmers take to the streets demanding legal guarantees for MSP, the government faces a delicate balancing act.

What Is MSP?

- Minimum Support Price (MSP) is the price set by the government at which it directly purchases agricultural products from farmers if the open market prices fall below this threshold.
- ♦ The primary purpose of MSP is to protect farmers against drastic price fluctuations during market volatility.
- It ensures a safety net for farmers, especially during bumper production years.
- It covers 22 crops, including paddy, wheat, maize, arhar (pigeon pea), cotton, and mustard seeds and Fair and Remunerative Price for sugarcane.

The MSP is calculated based on different cost components:

- **A2 Cost:** This includes actual paid-out expenses such as seeds, fertilizers, pesticides, labor, and other direct costs incurred during cultivation.
- **A2+FL Cost:** In addition to A2, this covers the imputed value of family labor involved in farming. It recognizes the contribution of family members who work on the farm without receiving a direct wage.
- **C2 Cost:** The most comprehensive, C2 encompasses A2+FL and adds rental value of owned land and interest on capital (including machinery and equipment). It represents the total cost of production and ensures a reasonable return on investment for farmers.
- ♦ The MSP is recommended by the Commission for Agricultural Costs and Prices (CACP) based on various factors:
 - Cost of Production: The CACP considers the cost incurred by farmers in cultivating a crop, including expenses on seeds, fertilizers, labor, and machinery.
 - Demand and Supply: The availability of a particular crop in the market influences its MSP. If there's excess supply, the MSP may be adjusted accordingly.
 - Price Trends: Domestic and international price trends impact the MSP. The government aims to provide a price that covers production costs and ensures a reasonable profit for farmers.
 - **Terms of Trade:** The balance between agricultural and non-agricultural sectors affects the MSP. The government strives to maintain a fair exchange between these sectors.

Significance of MSP

Income Security: MSP assures farmers a minimum income for their produce. It encourages them to invest in agriculture without fear of losses.

- Market Stability: By setting a floor price, MSP prevents drastic fluctuations in crop prices. This stability benefits both farmers and consumers.
- Food Security: MSP ensures adequate food production. It incentivizes farmers to grow essential crops like wheat, rice, and pulses.

The Swaminathan Commission's Recommendation

- The MS Swaminathan Commission, in its report, recommended that the government should raise the MSP to at least 50% more than the weighted average cost of production (C2+ 50% formula).
- This formula includes the imputed cost of capital and land rent, providing farmers with a fair return on their investment.

Earlier Events

Committee Formation: Over two years ago, during the previous farmer protests against the three contentious farm laws, the Union Government established a committee to examine the MSP mechanism further. This committee included farmers' representatives, central and state governments, agricultural economists, and scientists.

Benefits of Legal Status of MSP

- **♦** Providing Income **Security:** MSP provides procurement by the government at a minimum guaranteed price. Legalising it would ensure that farmers have a guaranteed and fair compensation.
- Prevention of Distress Sales: With guaranteed procurement by government at MSP farmer would not resort to distress sales in case price of crops falls below MSP level.
- **Encourages Crop Diversification:** The legalisation of MSP would lead to procurement of crops beyond rice and wheat which forms bulk of the government procurement now, which in turn would incentivise farmers to diversify their crops.

Issues with Legal Status for MSP

- **♦** Infrastructure: Establishing the necessary infrastructure for MSP enforcement may be complex. Adequate storage facilities are crucial for procuring produce at MSP rates, especially when buyers are scarce.
- ♦ Resource Constraints: The government might lack the physical resources to store large quantities of crops. Balancing procurement costs and expenditure becomes a critical concern.
- ♦ Fiscal burden: Providing legal guarantee to MSP will greatly increase the food subsidy bill which is already 1.9% of gdp in 2022.



WEEKLY

- Market distortion: It will disincetivise private traders from procuring cereals as price fluctuations will make it economically unviable.
- WTO subsidy Principle: It will violate the subsidy principle of WTO according to which subsidies which are market distortionary should be abolished.

World's Largest Decentralized Grain Storage Plan in Cooperative sector: Government has approved a plan to create warehouses, custom hiring centers, primary processing units and other agri infrastructure for grain storage at PACS level, through convergence of various GOI schemes, including AIF, AMI, SMAM, PMFME, etc. This will reduce wastage of food grains and transportation costs, enable farmers to realize better prices for their produce and meet various agricultural needs at the PACS level itself. 27 States/ UTs and National level Cooperative Federations such as National Cooperative Consumers Federation (NCCF) and National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), have identified more than 2,000 PACS for creation of storage capacity under the Pilot Project.



FUGITIVE ECONOMIC OFFENDERS

Context: Fugitive economic offenders will be extradited to India, Finance Minister Nirmala Sitharaman said in Lok Sabha.

Who are 'fugitive economic offenders' (FEO)?

- FEO is defined as an individual against whom a warrant of arrest in relation to a scheduled offence has been issued by any court in India and the value of the offence is at least Rs. 100 crore.
- The offender has left the country so as to avoid criminal prosecution and refuses to return to face criminal prosecution.
- Money laundering, forging official stamps or money, dishonouring checks and activities that mislead creditors are some of the offences that are included in the FEO legislation.

Fugitive Economic Offenders Act, 2018

- About: It aims to seize the property of economic offenders who have fled the nation to avoid being prosecuted or who refuse to come back to face charges.
- ♦ **Declaration of FEO**: A **special court** (established under the **PMLA**, **2002**) may designate someone

- as a fugitive economic offender after hearing the application.
- ➤ It has the authority to seize any property, whether it is located in India or outside, including Benami properties and proceeds of crime.
- ➤ Upon confiscation, the **central government** will become the sole owner of the property and have all rights and titles (such as any charges on the property).
- Bar on Filing or Defending Civil Claims: The Act allows any civil court or tribunal to prohibit a declared fugitive economic offender from filing or defending any civil claim.



KYASANUR FOREST DISEASE (KFD)

Context: Karnataka is grappling with the outbreak of Kyasanur Forest Disease (KFD), commonly known as monkey fever.

What is Monkey Fever?

- Monkey fever is caused by the Kyasanur Forest disease virus (KFDV), a member of the Flaviviridae virus family.
- ➤ The KFD virus is an **arbovirus** belonging to the Flaviviridae family.

Arboviruses are **arthropod-borne viruses**: i.e., infections transmitted mainly by small animals like arachnids and insects.

- The virus was first identified in 1957 when it was isolated from a sick monkey in the Kyasanur Forest of Karnataka.
- Transmission to humans primarily occurs through tick bites or contact with an infected animal, particularly a sick or recently deceased monkey.
 - ➤ There is no evidence of **person-to-person transmission**.
- Prevention of monkey fever involves several strategies.
 - A vaccine is available and used in endemic areas of India.
 - Other preventative measures include using insect repellents, wearing protective clothing in tick-infested areas, and avoiding contact with potentially infected animals.
- ♦ Treatment: There is no specific treatment for KFD. Management of the disease includes early hospitalisation and supportive therapy.







X CHROMOSOME AND **AUTOIMMUNITY**

Context: A

groundbreaking study has illuminated the intricate relationship between the X chromosome and autoimmunity.

What are autoimmune Diseases?

♦ Autoimmune diseases are conditions in which your immune system mistakenly damages healthy cells in your body. Instead of protecting you from diseases and infections, your immune system mistakenly targets and attacks parts of your own body as if they were foreign invaders. This abnormal response leads to inflammation and damage to various organs and tissues.

Common Autoimmune Diseases:

- ➤ Type 1 diabetes: Damages the pancreas.
- ➤ Rheumatoid arthritis (RA): Attacks the joints.
- > Systemic lupus erythematosus (lupus): Can affect multiple body systems.
- ➤ Crohn's disease, psoriasis, and multiple sclerosis

Xist RNP Complex and Autoimmunity:

- ♦ Xist, a long non-coding RNA (IncRNA) associated with the X chromosome, plays a pivotal role.
- ♦ Its associated ribonucleoprotein (RNP) complexes participate in the formation of immune complexes recognized by the immune system.
- ♦ Intriguingly, male mice producing Xist were more susceptible to severe autoimmune disease.
- Autoantibodies targeting Xist and related proteins were also found in people with autoimmune diseases, hinting at a potential trigger for autoimmunity.

X Chromosome and Autoimmune Risk:

- ♦ The presence of a second X chromosome has been linked to an increased risk of autoimmune diseases in both sexes.
- Specific genes on the X chromosome, which escape the usual inactivation process, contribute to this heightened risk.
- ♦ Experimental studies reveal that inducing the formation of these immune complexes in male mice increases disease severity and alters immune cell profiles.
- Thus, the X chromosome plays a crucial role in driving autoimmune risk, particularly among women.

Transforming Detection and Monitoring:

- ♦ Identifying autoantibodies targeting Xist-associated proteins could revolutionize autoimmune disease detection and monitoring.
- ♦ These findings offer new therapeutic targets and hold promise for developing more sensitive testing and preventive approaches.

Implications for Autoimmunity:

- ♦ Exploring X chromosome-related mechanisms opens new avenues for comprehending and combating these complex conditions.
- Ongoing research investigates spontaneous germinal center formation in mice and the role of nerve growth factor receptors in autoimmunity.

Chromosomes

Chromosomes are thread-like structures found inside the nucleus of animal and plant cells. Each chromosome consists of protein and a single molecule of deoxyribonucleic acid (DNA). These remarkable entities carry the genomic information from cell to cell, serving as the blueprints for life itself.

Composition:

- Chromosomes are composed of DNA and histone
- The long, thin DNA fibers are coated with nucleosomes, which are formed by these packaging proteins, especially histones.

Hereditary Traits:

- Chromosomes play a crucial role in heredity.
- They contain the specific instructions that make each type of living creature unique.
- These instructions are passed from parents to offspring.

Cell Division:

- During cell division, chromosomes ensure that DNA is divided equally between the daughter cells.
- Any irregularities in this process can lead to various diseases and deformities.

Health Implications:

- Chromosomal aberrations, such as changes in structure or number, can cause genetic disorders like Down's syndrome and Turner's syndrome.
- Defective chromosomes may even contribute to certain types of leukemia in humans.

CURRENT AFFAIRS WEEKLY

HIGH-ALTITUDE PSEUDO SATELLITE VEHICLE (HAPS)

Context:

THE NATIONAL Aerospace Laboratories (NAL) in Bengaluru has successfully completed the first test of a solar-powered "pseudo satellite", a new age unmanned aerial vehicle (UAV) that can significantly increase India's surveillance and monitoring capabilities in the border areas.

About

- High-altitude pseudo satellites, or HAPS, are unmanned air vehicles that can hold a fixed position.
- Operational height: HAPS operate in the stratosphere, closer to Earth than many satellites but further up than drones and conventional aircraft.
 - ➤ The high-altitude pseudo satellite vehicle, or HAPS, can fly at altitudes of 18-20 km from the ground, almost double the heights attained by commercial airplanes.

Significance:

Solar-Powered Operation: A distinguishing feature of India's HAPS is its reliance on solar power for sustained operation.

- Advantages of a satellite: due to its ability to generate solar power, it can remain in air for months, even years, offering it advantages of a satellite.
- Cost effective: But because it does not require a rocket to get into space, the cost of operating HAPS is several times lower than that of a satellite that is usually placed at least 200 km from the earth.
- Better solution: HAPS can be very useful in disaster situations as well.

What is the need?

- Need of continuous surveillance of border areas: The need for development of high-endurance, high-altitude flying instruments arose from the desire to have continuous surveillance of border areas to detect changes or movements, particularly in the wake of the Doklam standoff in 2017.
- **♦** Issue with the present system:
 - ➤ **Battery-powered UAVs** can remain in air for a limited period of time and can scan relatively smaller areas.
 - > Satellites placed in low-earth orbits and meant to observe the Earth usually move in their orbits and are not watching constantly.
- HAPS is a still-developing technology, and the recent successful test flight puts India among a very small group of countries currently experimenting with this technology.









PRELIMS **TEST SERIES** 2024 ECTIONAL 2800⁺ QUESTIONS

Scan QR Code for more **Details & Test Schedule**



PROGRAMME FEE ₹ 4.500 (+GST)



Tests as per Changing Pattern of the UPSC Prelims



Concept & Essential Skills Builiding through Tests and their Discussion



Level-wise Questions for gradual improvement & exam readiness



One-on-one mentorship for Personlised Guidance



Emphasis on both Static & Current Events as per the evolving format





SECTIONAL TESTS (GS)

100 QUESTIONS



CURRENT AFFAIRS TESTS 100 QUESTIONS



MOCK TESTS (GS & CSAT) **100 & 80 QUESTIONS**





Section D [QUIK BYTES]

- **68** BAPS Hindu Mandir
- **G** Berrechid Plain
- ✓ Janaspandana
- Women make up only 9% of Information Commission: RTI
- ✓ Voters in India
- SC refuses to stay law to appoint ECs
- Microfinance institutions (MFIs)
- **MSCI** Index
- Olive Ridley turtles
- ്ര Great Indian Bustard
- **S** Key proteins could predict dementia: Study

BAPS Hindu Mandir



'BAPS Mandir', the first traditional Hindu temple in the United Arab Emirates has been inaugurated.

About

- The BAPS Hindu Mandir in Abu Dhabi is the first Hindu temple in UAE.
- The temple is built on a 27-acre site in Abu Mreikhah, near Al Rahba off the Dubai-Abu Dhabi Sheikh Zayed Highway, at a cost of around ₹700 crore.
- It incorporates intricately designed pink sandstone and marble façade with seven spires that represent each of the Emirates of the country.
- The temple has been made of 40,000 cubic metres of marble, 1,80,000 cubic metres of sandstone and over 1.8 million bricks.
- The temple's design draws inspiration from Vedic architecture and sculptures.
- Many of the statues and carvings have been done by artisans in India and have been shipped to Abu Dhabi.
- The vast complex includes a large amphitheatre, a gallery, a library, a food court, a majlis and two community halls with space for 5,000 people.

What is BAPS?

- BAPS stands for the Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha (BAPS).
- The organisation is named after **Bhagwan Swaminarayan,** a religious leader who lived in the late 1700s.
- It is a socio-spiritual Hindu faith with its roots in the **vedas** and was pioneered by Bhagwan Swaminarayan (1781-1830) in the late 18th century and established in 1907 by Shastriji Maharaj (1865-1951).
- The Akshardham temples in Delhi and Gujarat are also run by BAPS.

Berrechid Plain



In Berrechid province, Morocco, which is historically known for its fertile land (breadbasket), there is a serious problem due to ongoing drought.

About

- The Berrechid plain has historically been known as Morocco's granary for its vast production of cereals and fodder.
- Over the past two decades, the plain has seen a disorderly intensification of irrigation.
- More than 88 per cent of Berrechid's vast agricultural lands are not irrigated, with farmers relying instead on rain.

Irrigation crisis

- Like in Morocco, water is incredibly precious in all of the Near East and North Africa.
- Freshwater availability in the region is around onetenth of the global average, having decreased by 78 percent between 1962 and 2018, compared with a global reduction of 59 percent over the same period.

Janaspandana



The second edition of the State-level Janaspandana, a public grievance redressal programme evoked massive response with over 20,000 people attending it with 12,372 petitions on various grievances in Karnataka.

What is Janaspandana?

- Janaspandana is a call centre that helps address various grievances of the citizens.
- Under this programme, the Chief Minister of Karanataka reach out directly to people to address their concerns and issues with promise of speedy solutions.

Women make up only 9% of Information Commission: RTI



Merely 9 per cent of Information Commissioners at the central and state levels appointed since 2005 were women while retired government officials dominated such postings cornering 58 per cent of the total appointments, as per a new report.

Key-highlights of the Report

- **Title:** 'Report Card on the Performance of Information Commissions in India 2022-23'
- 12 Information Commissions -- Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Telangana, Uttarakhand and West Bengal -never had a woman commissioner since they were constituted.
- Of the 29 Information Commissions across the country, only 5 per cent chiefs ever were women and at present, none of the information commissions was headed by a woman.

Voters in India

Nearly 97 crore people are registered to vote in the forthcoming Lok Sabha elections and around 1.85 crore of them are in the 18-19 age-group, as per the the Election Commission (EC).

Important Facts

Total: A total of over 96.88 crore voters are registered across the country.





- New addition: More than 2 crore young electors, spanning the 18-19 and 20-29 age groups, have been added to the electoral roll.
- **Female voters:** There has been a remarkable increase in female voter registrations, pointing at efforts towards gender parity. Female voter enrollment surpassed male voters during 2024 data, with over 1.41 crore newly enrolled female electors.
- **PwD:** Around 88.35 lakh Persons with Disabilities (PwD) have been flagged in the electoral roll database, ensuring accessibility and inclusivity on polling day.

SC refuses to stay law to appoint ECs

The Supreme Court refused, for a second time, to ban a contentious new law on the appointment of election commissioners.

About the Bill:

- Background: The Bill replaces the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991.
- Aim: The bill provides details related to the appointment, qualifications, search committee, selection committee, term of office, salary, resignation and removal, leave, and pension of the chief election commissioner and other election commissioners.

• Provisions of the Bill:

- ➤ As per the provisions of the bill, the CEC and ECs will be appointed by the **President of India** on the recommendation of a selection committee.
- However, the panel will consist of three members
 the prime minister, the Union cabinet minister, and the leader of the opposition.
- Recommendations of the Selection Committee will be valid even when there is a vacancy in this Committee.
- ➤ A **Search Committee** headed by the Cabinet Secretary will propose a panel of names to the Selection Committee.
- ➤ Eligibility for the posts includes holding (or having held) a post equivalent to the Secretary to the central government.
- ➤ The salary and conditions of service of the CEC and ECs will be equivalent to that of **Cabinet Secretary.** Under the 1991 Act, it was equivalent to the salary of a **Supreme Court Judge.**
- ➤ Eligibility criteria: The CEC and ECs must:
- ➤ be persons of integrity,
- ▶ have knowledge and experience in the management and conduct of elections, and
- ➤ be or have been Secretary (or equivalent) to the government.



- **Term and reappointment**: Members of the Election Commission will hold office for six years, or until they attain the age of 65 years, whichever is earlier.
 - ▶ Members of the Commission cannot be reappointed. If an EC is appointed as a CEC, the overall period of the term may not be more than six years.

Microfinance institutions (MFIs)



Reserve Bank of India (RBI) slammed microfinance institutions (MFIs) for charging higher rates to borrowers, thus cautioning against irresponsible practices.

- Microfinance institutions (MFIs) are financial companies that provide small loans to people who do not have any access to banking facilities.
- The definition of "small loans" varies between countries.
- In India, all loans that are below Rs. 1 lakh can be considered as microloans.
- **Different categories of institutions** are involved in providing microfinance in India, such as:
 - ➤ Commercial banks
 - Credit unions
 - ➤ NGOs (Non-Governmental Organizations)
 - ➤ Sectors within government banks
 - ➤ Cooperatives

MSCI Index



The gap in weightage between Indian and Chinese equities on the MSCI index is narrowing.

- Morgan Stanley Capital International (MSCI) is an investment research firm that provides stock indexes, portfolio risk and performance analytics, and governance tools to institutional investors and hedge funds.
- MSCI is perhaps best known for its benchmark indexes—including the MSCI Emerging Market Index and MSCI Frontier Markets Index—which are managed by MSCI Barra.
- MSCI added five Indian stocks to its Global Standard index.
- Punjab National Bank and Union Bank of India were added to the large-cap category
- Bharat Heavy Electricals and NMDC were included in the mid-cap category.
- **GMR Airports Infrastructure** was moved to the midcap category from small-caps.

Olive Ridley turtles

Dead **Olive Ridley turtles** continue to wash up on the beaches of Visakhapatnam coast in this current breeding season. The deaths are attributed to trawling activities and pollution from industries among others.

About Olive Ridley Turtles:

- They are the smallest and most abundant of all sea turtles found in the world.
- Major nesting sites in India: Rushikulya rookery coast (Odisha), Gahirmatha beach (Bhitarkanika National park) and mouth of the Debi River.
- Scientific name: Lepidochelys olivacea; also known as the Pacific ridley sea turtle.
- Presence: Found in warm waters of the Pacific, Atlantic and Indian oceans.
- Conservation Status:
 - ➤ IUCN Red List: Vulnerable
 - ➤ **Schedule I** of Indian Wildlife (Protection) Act, 1972
 - ➤ CITES Appendix I
- Features:
 - ➤ Known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs.
 - ➤ These are carnivores and feed mainly on jellyfish, shrimp
 - ➤ The eggs hatch in 45 to 60 days, depending on the temperature of the sand and atmosphere during the incubation period.

Great Indian Bustard



The **Great Indian Bustard (GIB)** has not been spotted at the **Rollapadu Wildlife Sanctuary** in Nandyal district of Andhra Pradesh and its surrounding areas for the last couple of years, which is an indication that the bird is at risk of local extinction.

About Great Indian Bustard:

- The Great Indian Bustard (Ardeotis nigriceps), is a bustard native to the Indian subcontinent. Bustards are large terrestrial birds found in dry grasslands and steppe regions. It is also known as the Indian Bustard; it is among the heaviest of flying birds in existence.
- It is the **State bird of Rajasthan** and is considered India's most critically endangered bird.
- It is considered the flagship grassland species, representing the health of the grassland ecology.
- The GIB is now found in a small number only in western Rajasthan, while Gujarat claims to have a few females left in its Banni Grassland Reserve.

WWW.WWW.WWW.SHORT NEWS

- Population: Less than 150 individuals of these birds persist in a few fragmented pockets of Rajasthan and Gujarat.
- As per the last count of the GIB in 2018, there were around 127 birds in the Desert National Park or the DNP in Rajasthan.
- Protection Status:
 - ➤ International Union for Conservation of Nature Red List: **Critically Endangered**
 - ➤ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I
 - ► Convention on Migratory Species (CMS): Appendix I
 - ➤ Wildlife (Protection) Act, 1972: Schedule 1

Key proteins could predict dementia: Study

In a first, researchers from China's Fudan University have identified key proteins in the brain that could predict **dementia**, **Alzheimer's disease**, **and vascular dementia** nearly 10 years before diagnosis.

Key-findings

- Out of a total of 1,463 plasma proteins or blood proteins in the human body, the team found that four were associated with dementia.
 - ▶ GFAP
 - ▶ NEFL
 - ➤ GDF15
 - ▶ LTBP2
- **Blood proteins** are proteins present in blood plasma that serve a variety of functions, including the transport of lipids, hormones, vitamins, and minerals.

Alzheimer's disease

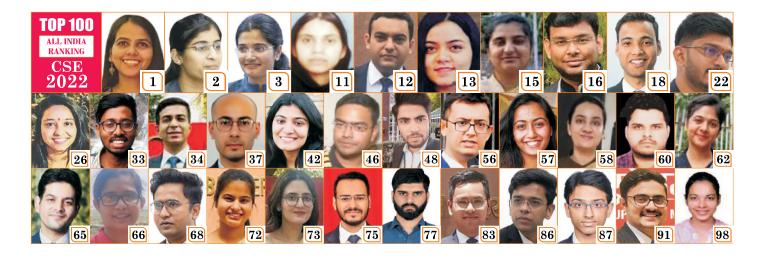
- It is a neurological disorder which causes brain cells to degenerate and die. This leads to loss of memory, problems with words in speaking or writing, poor judgment, changes in mood and personality, confusion with time or place, etc.
- At the first stage, these symptoms are mild but they become more severe with time.
- Alzheimer's is the most common cause of dementia among older adults.
- Alzheimer's disease is thought to be caused by the abnormal build-up of proteins in and around brain cells. One of the proteins involved is called amyloid, deposits of which form plaques around brain cells and the other protein is called tau.
- There is currently no cure or therapy for dementia, which is a progressively degenerative brain disease resulting in loss of brain function and memory.



GSSCORE







SUCCESS IS A PRACTICE WE DO!

