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GS - I

VANADIUM DISCOVERED IN GUJARAT

- As per reports, Vanadium has been found in sediment collected from Gulf of Khambhat, Gujarat.
- Major reserves of vanadium located in China (largest producer and consumer), Russia and South Africa.
- Largest exporter: Brazil.

ABOUT VANADIUM

- Vanadium is a rare element, characterized by its hardness, silvery-grey appearance, ductility, malleability, and strong resistance to corrosion.
- It occurs naturally in approximately 65 different minerals, including patronite, vanadinite, roscoelite, and cacnotite. It can also be found in bauxite, fossil fuel deposits, and in small quantities in meteorites.
- Vanadium is primarily obtained from mined iron ore, carbonaceous shale, phyllites, and steel slag.



APPLICATIONS OF VANADIUM

- Iron & Steel Industry: Primarily as an alloying element.
- Automotive and aviation industries: Provides high fuel-efficiency due to its high strength-to-weight ratio.
- Non-metallurgical: As catalyst and in ceramic, chemical, pigments, health preparations and electronic industries.
- Nuclear Reactors: Because of low neutron-absorbing properties.
- Battery Technologies: As secondary batteries for power plants and rechargeable vanadium redox battery (VRB) for commercial applications.
- VRB is a mobile battery that converts energy stored in an electrolyte into electricity by exchanging electrons between vanadium ions separated by a membrane.

HOYSALA TEMPLES ON UNESCO WORLD HERITAGE LIST



ABOUT THE HOYSALA TEMPLES

Historical Background: The Hoysala Empire ruled parts of southern India from the 10th to 14th century. Their capital was initially located in Belur and then moved to Halebidu.

Architectural Style: The temples constructed during the Hoysala period are known for their intricate sculpture and unique architectural style. They are characterized by star-shaped bases, intricately detailed carving, and soapstone (chloritic schist) as the primary building material.

MAJOR TEMPLES

Chennakesava Temple, Belur: Dedicated to Lord Vishnu, this temple is known for its detailed carvings and sculptures, including the famous bracketed figures or Madanikas.

Hoysaleswara Temple, Halebidu: Dedicated to Lord Shiva, this temple is renowned for its extensive wall reliefs depicting stories from Hindu mythology.

Jain Basadi, Shravanabelagola: The Jain temple complex in Shravanabelagola, with its colossal statue of Bahubali (Gomateshwara), is a significant site from the Hoysala period.

ARTISTIC SIGNIFICANCE

Hoysala sculptures and temple designs exhibit a significant degree of realism. They portray not just deities, but also various aspects of daily life, dancers, musicians, flora, and fauna.

DISTINCT FEATURES

The temples often have a unique platform called 'Jagati' which one could circumambulate, and which serves the dual purpose of being a pradakshina patha (circumambulatory path) and highlighting the temple's sculptural details at an eye level.



SHANTINIKETAN ON UNESCO'S WORLD HERITAGE LIST



Rabindranath Tagore's Shantiniketan, the university town in West Bengal's Birbhum district has been inscribed on the UNESCO's World Heritage List.

Shantiniketan becomes the 41st UNESCO World Heritage site in India and the third in West Bengal, after the Sunderbans National Park and the Darjeeling Mountain Railways.

Last year, the state's Durga Puja got space in "Intangible Cultural Heritage of humanity" under UNESCO.

ABOUT SHANTINIKETAN

Established in 1901 by the Nobel Laureate Rabindranath Tagore, Shantiniketan was a residential school and centre for art based on

ancient Indian traditions and a vision of the unity of humanity transcending religious and cultural boundaries. A 'world university'- Visva Bharati- was also established here in 1921.

Shantiniketan is directly and tangibly associated with the life, works and vision of Rabindranath Tagore and the pioneers of the Bengal school of Art.

It exhibits the crystallisation of their ideas of internationalism, humanism, inclusiveness, environmentalism and a pan Asian modernism.

Other sites to find place on the list on Sunday include –

1. Ancient Jericho in Palestine
2. Zarafshan-Karakum corridor of Silk roads in Tajikistan, Turkmenistan, Uzbekistan
3. The Gedeo cultural landscape in Ethiopia
4. The cultural landscape of old tea forests of the Jingmai Mountain in China's Pu'er.

MOROCCO EARTHQUAKE



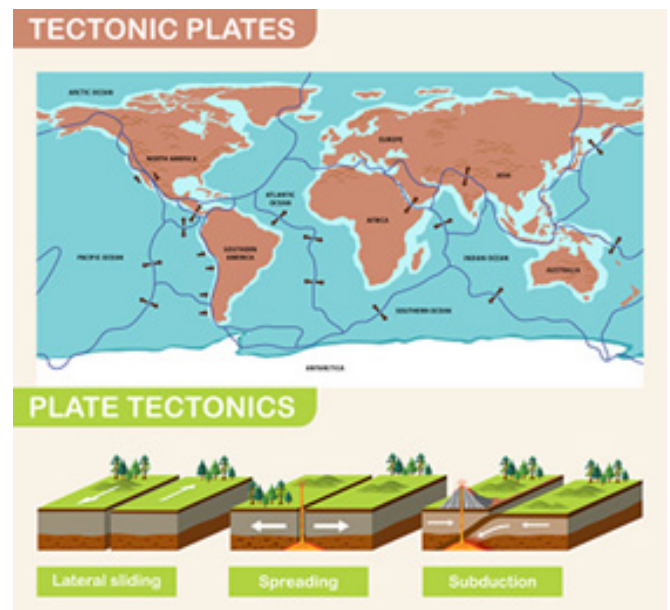
A 6.8 –magnitude –quake struck the Atlas mountains late on 8th September, 2023, southwest of the tourist centre of Marrakesh.



WHAT IS AN EARTHQUAKE?

An earthquake is a natural geological phenomenon characterized by the sudden release of energy in the Earth's crust, resulting in the generation of seismic waves.

This release of energy occurs when tectonic plates, the massive blocks of the Earth's crust, suddenly slide past each other.



LOCATION OF MOROCCO

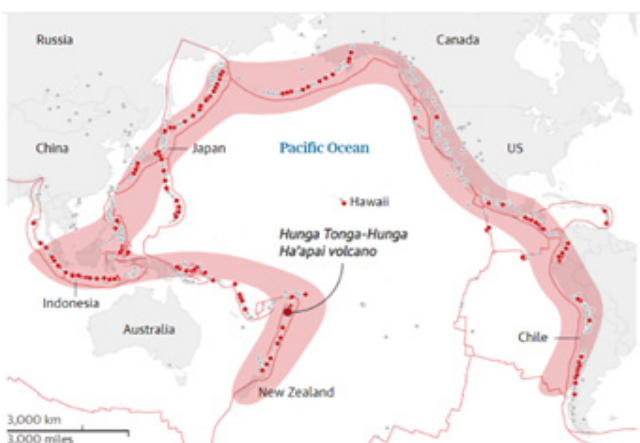
Morocco is situated at the juncture of the African and Eurasian tectonic plates, where these enormous plates come into contact, leading to the potential for seismic events.



HUNGA-TONGA ERUPTION



Recent eruption of the submerged Hunga Tonga–Hunga Ha’apai volcano triggered a fast moving and destructive underwater debris flow that severed telecommunication cables.



HUNGA-TONGA ERUPTION

It is an Undersea Volcanic Eruption consisting of two small uninhabited islands, Hunga-Ha’apai and Hunga-Tonga.

The Tonga Islands occur along the Ring of Fire – a perimeter of heightened volcanic and seismic activity that encircles the Pacific Ocean basin.

A new study shows that the rock and ash ejected during the Hunga eruption collapsed vertically and directly into the ocean and travelled as an extremely fast moving and highly destructive underwater debris flow.

WHAT IS THE RING OF FIRE?

Also called the circum-Pacific belt, the Ring of Fire is a Pacific region, home to over 450 volcanoes.

Three of the world's most four active volcanoes are there- Mount St. Helens in the USA, Mount Fuji in Japan and Mount Pinatubo in the Philippines.

90% of the world's earthquakes occur in the Ring of fire.

WHY DOES THE RING OF FIRE TRIGGER EARTHQUAKE?

The Ring of Fire triggers earthquakes due to the movement and interaction of tectonic plates, especially at subduction zones, around the Pacific Plate.

TROPICAL CYCLONES IN THE ARABIAN SEA



FREQUENT OCCURRENCE OF TROPICAL CYCLONES IN THE ARABIAN SEA

An examination of historical data on cyclones in the North Indian Ocean (covering the Bay of Bengal and Arabian Sea) from 1891 to 2020 reveals that the occurrence of "very severe cyclonic storms" has seen a recent upsurge in the Arabian Sea.

TROPICAL CYCLONES



Rapidly rotating storm system characterized by:

- o Low-pressure centre.
- o A closed low-level atmospheric circulation.
- o Strong winds, and a spiral arrangement of thunderstorms that produce heavy rain and squalls.

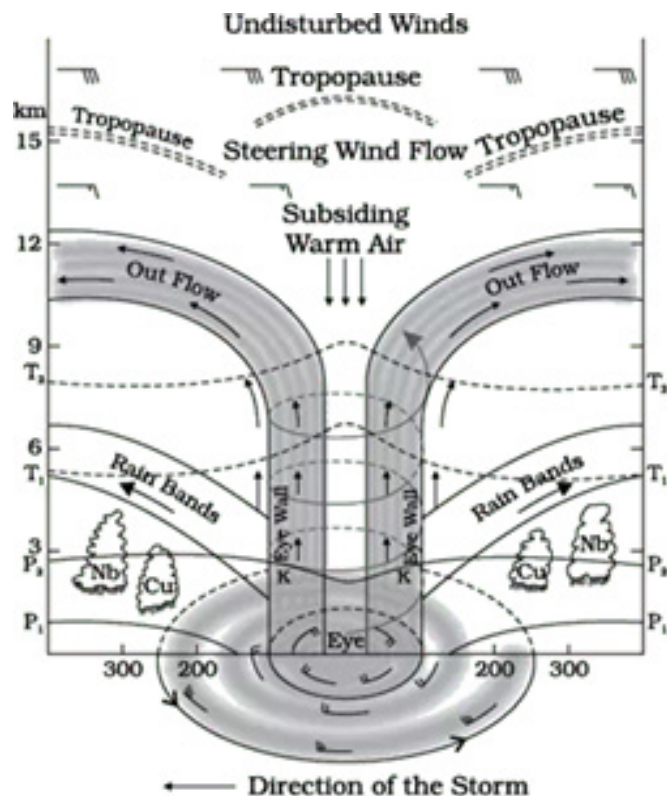


Fig: Vertical section of the tropical cyclone

CONDITIONS FOR FORMATION OF TROPICAL CYCLONE

- Large sea surface with temperature higher than 27 degree Celsius.
- Consistent source of heat is necessary as tropical cyclone is thermally induced low pressure system.
- Small variations in the vertical wind speed.
- Presence of enough Coriolis force.
- Pre existing weak low pressure area or low level cyclonic circulation.
- Upper divergence above the sea level system.

FACTORS RESPONSIBLE FOR THE SUDDEN INCREASE IN THE OCCURRENCE OF CYCLONES IN THE ARABIAN SEA.

- Rapid increase in surface temperature due to global warming.
- Currently, it is 1.2 to 1.4°C higher than it was four decades ago.
- These elevated temperatures foster active convection, heavy rainfall, and the

development of intense cyclones.

- The rising temperature enabling Arabian sea to supply ample energy for intensification of cyclones.
- Increase in mean sea level leading to rise in sea level in coastal area, due to which storms can lead to extreme events in coastal regions.

CONCERNS ASSOCIATED WITH CHANGING TRENDS

- Delayed monsoon which may disrupt the normal flow of Indian monsoon by drawing moisture away from the monsoon winds.
- Increase in Severe Rainfall Events.
- Threefold increase in widespread extreme rainfall events that lead to floods in India due to the warming of the Arabian Sea.
- Forecasting Challenge: Due to rapid strengthening of cyclones, cutting edge cyclone models struggle to predict this rapid strengthening.

WAY AHEAD

- The cyclones must be closely monitored at higher resolution and accuracy using on-site platforms.
- The Indian National Centre for Ocean Information Services (INCOIS) must be provided with greater autonomy, finance, and human resources. This would improve the collection and dissemination of data on cyclonic events.
- There must be an incorporation of the global warming signals in the weather models that can help tackle the challenges of intense cyclones in the future.
- Climate predictions suggest that the

Arabian Sea will keep getting warmer because of rising carbon emissions, leading to even stronger cyclones in the years ahead.

This highlights the need to enhance disaster management efforts in alignment with the Sendai Framework for Disaster Risk Reduction 2015-2030.

PARLIAMENTARY STANDING COMMITTEE ON TRANSPORT, TOURISM AND CULTURE PRESENTED “FUNCTIONING OF ARCHAEOLOGICAL SURVEY OF INDIA (ASI)” REPORT

The report encompasses the challenges associated with the Archaeological Survey of India (ASI) and provides recommendations for improving its functioning.

CHALLENGES IN THE FUNCTIONING OF ASI INCLUDE:

- The Centrally Protected Monuments list contains a large number of minor monuments that lack national significance.
- For example, the list includes 75 graves of colonial-era soldiers or officials of no notable importance.
- The provision of a 100-meter prohibited area and a 300-meter regulated area around all ASI-protected monuments has faced criticism from the local community.
- They find it challenging to carry out necessary repair work on their residential houses due to these restrictions. This provision was introduced in 2010 through an amendment in the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act of 1958.

- Restoration efforts are often carried out without considering the original design and beauty of the monument.

RECOMMENDATIONS FOR IMPROVING THE ASI'S FUNCTIONING INCLUDE:

- Rationalizing and categorizing the list of monuments under ASI based on their national significance, unique architectural value, and specific heritage content.
- Dividing the ASI into two separate wings: one focused on the core mandate of exploration, excavation, and conservation aspects, and another entity called the India Heritage Development Corporation (IHDC) to manage ASI's entire revenue.
- Embracing advanced technologies like LiDAR, ground-penetrating radar, and 3D scanning to enhance the accuracy and efficiency of excavations.

MEERA MATI MEERA DESH



- "Meri Maati Mera Desh" (MMMD) campaign is entering its last phase with Amrit Kalash Yatras nationwide.
- This pan India outreach initiative aims to reach every household in the country.
- In a significant collaborative effort, multiple Ministries, State governments,

Nehru Yuva Kendra Sangathan, Zonal Cultural Centers, Central Armed Police Forces, Indian Post, Miety and Coal are actively engaged in the monumental task of collecting soil from every household in villages and block levels.

- This joint initiative underscores their dedication to achieving this ambitious goal, showcasing their commitment to community service and nation-building.

ABOUT THE MISSION

- The nationwide campaign "Meri Maati Mera Desh" was launched on August 9, 2023 to honor the courageous individuals, known as 'Veers,' who sacrificed their lives for the nation.
- This initiative marks the conclusion of the 'Azadi ka Amrit Mahotsav,' which commenced on March 12, 2021 and witnessed extensive public engagement (Jan Bhagidari) through the organization of over 200,000 programs across India.
- The Amrit Kalash Yatras will reach its pinnacle at Kartavya Path in a grand ceremony on October 30th and 31st, 2023.
- During this nationwide initiative's grand culmination, a monumental Kalash, symbolizing the unity and diversity of our nation, will be placed for blending soil collected from every corner of the country and ceremoniously positioned in the Amrit Vatika and Amrit Mahotsav Memorial.

BIRTH ANNIVERSARY OF NETAJI SUBHAS CHANDRA BOSE AND MAHATMA GANDHI

- On the birth anniversary of Netaji Subhas Chandra Bose, the nation pays tribute to the freedom fighter and revolutionary leader. President Droupadi Murmu and Prime Minister Narendra Modi led the nation in paying tributes to Netaji.
- Netaji was the first to address Mahatma Gandhi as the "Father of the Nation," despite their public differences.
- The occasion is marked by leaders and citizens alike, with Prime Minister Modi and other dignitaries paying floral tributes to Netaji Subhas Chandra Bose in Parliament.
- The relationship between Gandhi and Bose, as well as their contributions to India's freedom struggle, continues to inspire and be remembered by the nation.

PM MODI ON 154TH GANDHI JAYANTI, 2ND OCTOBER 2023



- In preparation for Gandhi Jayanti, the Prime Minister had issued a unique call to action.
- For the celebration of Gandhi Jayanti Celebration 2023, PM Narendra Modi

had announced a campaign 'Ek Tareekh, Ek Ghanta, Ek Saath.'

- He had urged the citizens of India to do Shramdaan under the campaign 'Ek Tareekh, Ek Ghanta, Ek Saath.'

GANDHI JAYANTI'S SIGNIFICANCE IN THE HISTORY OF INDIA

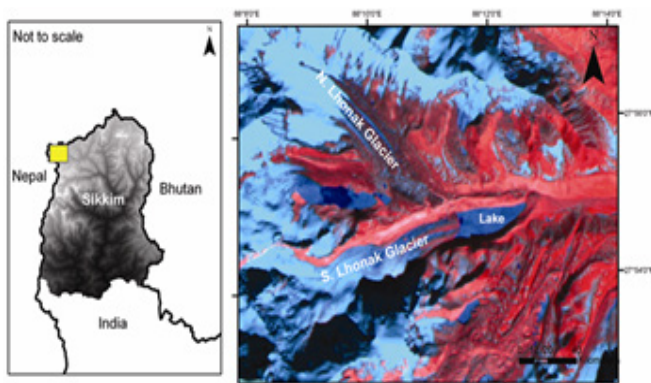
- Mahatma Gandhi learned and believed in various sources like Bhagavad Geeta, Jainism, Buddhism, the Bible, and Gopal Krishna Gokhale. His ideologies namely, truth and non-violence were the two most prominent principles.
- He chose Satyagraha as a weapon to fight for rights and put across the message through self-suffering instead of violence. He used this technique of peaceful protests in South Africa against racism and discriminatory treatment of low castes and women.
- He worked tirelessly for the upliftment of untouchables and gave them a new name Harijan (the children of God).
- Mahatma Gandhi organized satyagraha movements amongst cotton mill workers and peasants in different parts of the nation.
- Gandhiji also performed a satyagraha against the Rowlatt Act that the British had passed as the act affected fundamental rights.
- He also observed Non-Cooperation with British rule where people were asked to stop attending schools, colleges, and law courts, and not pay taxes.
- Dandi Salt March, Gandhi ji began walking from his ashram at Sabarmati towards the ocean for 3 weeks.
- He changed the Indian National Congress

a peoples' Congress and the national movement a mass movement.

- He launched the Quit India Campaign which led to a mass movement collecting ordinary people and youth to go to jails and fight against British rule.
- He made people fearless and taught them to be vocal against injustice. He is remembered for his struggle for freedom and his great movements in getting Independence with his non-violent ways.

DISASTER IN SIKKIM

- After Uttarakhand and Himachal Pradesh, Sikkim has been racked by disaster due to flash flood caused by a sudden cloudburst.
- Around 14 people have been killed and many injured.
- The cloudburst over Lhonak lake in north Sikkim triggered a flash flood in the Teesta river basin.



WHAT IS A CLOUDBURST?

- A cloudburst is an extreme amount of precipitation in a short period of time, sometimes accompanied by hail and thunder, which is capable of creating flood conditions.

DIFFERENCE BETWEEN THE SIKKIM INCIDENT AND OTHER TWO HIMALAYAN STATES

- In Uttarakhand and Himachal Pradesh, unrestricted environmental degradation in the name of development had led to enormous infrastructural damage and huge loss of lives in the deluge.
- While in Sikkim, the cloudburst caused a devastating glacial lake overflow, triggering flash flood and causing the breach of Sikkim's Chungthang Dam, the biggest hydropower project in the state.



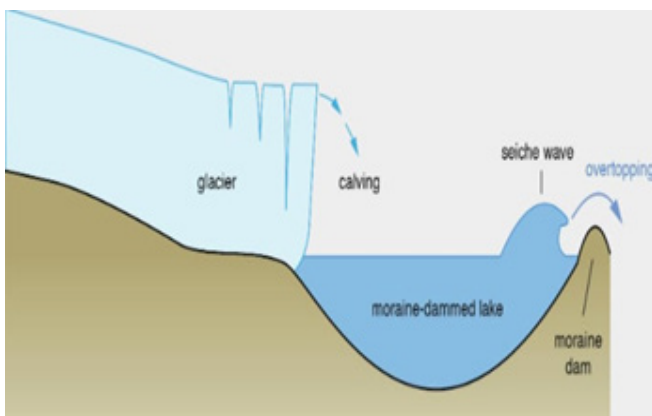
- Recently Joshimath, one of Uttarakhand's town has been declared a landslide-subsidence zone, as the town appears to be sinking, causing panic in the whole city due to the unrestricted environmental degradation in the name of development.

VULNERABILITY OF LHONAK LAKE TO A GLACIAL LAKE OUTBURST FLOOD

- Scientist from National Remote Sensing Centre in Hyderabad had reported that the Lhonak lake, at a height

of 5,245 metres above sea level was 'highly vulnerable' and warned of the possible flash floods with important infrastructure such as dams and powerhouses susceptible to damage.

- As pointed out by experts, himalayan region is a part of seismically active zone and the breach on Chungthang hydro dam reminds us of the importance of reviewing such large hydro projects in the region.
- A glacial lake outburst flood (GLOF) is a type of catastrophic flood that occurs when the dam containing a glacial lake fails, releasing a large volume of water.
- This type of flood is typically caused by rapid melting of glaciers or the buildup of water in the lake due to heavy precipitation or the inflow of meltwater.



GS - II

THREE YEARS OF THE ABRAHAM ACCORD

The Accord, known as the Abraham Accords is a normalization agreement signed between the United Arab Emirates (UAE), Bahrain, and Israel with the USA playing the role of a mediator.



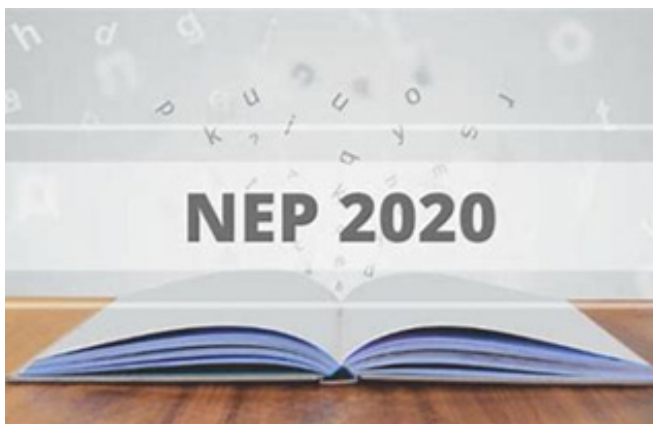
- Later, Sudan and Morocco also joined this agreement.
- The primary aim of the Accord was to normalize diplomatic relations between the involved nations.
- It was intended to bring Israel closer to the Gulf nations that share common values and mutual interests, thereby advancing the cause of peace in the region.
- Prior to this accord, Israel had a range of relationships with other countries in the region, varying from overt hostility, as seen with Sudan, to no diplomatic relations, as was the case with the UAE and Bahrain, among others.
- New joint ventures have emerged in critical sectors such as clean energy, health, and innovation.
- The Accords have fostered deeper people-to-people ties, contributing to the integration of the region.
- India has also benefited from these Accords:
 - Direct flights between these countries have eased travel, making it more convenient for people.
 - Commercial collaborations have been established between companies from these countries and the Indian private sector.
 - The formation of the IUIU (Israel, UAE, India, USA) Group became possible due to the Accords, providing an international forum to discuss common areas of mutual interest, strengthen economic partnerships in trade and investment, both within their respective regions and beyond.
 - This group is often referred to as the "West Asian QUAD."

The impacts of the Abraham Accords have been significant:

- There has been a notable increase in trade and commerce between Israel and other West Asian countries.

PARLIAMENTARY STANDING COMMITTEE ON EDUCATION, WOMEN, CHILDREN, YOUTH AND SPORTS PRESENTED “IMPLEMENTATION OF NATIONAL EDUCATION POLICY (NEP), 2020 IN HIGHER EDUCATION” REPORT

- The National Education Policy (NEP) in India is constructed on the foundational pillars of Access, Equity, Quality, Affordability, and Accountability, with the ultimate goal of transforming the country into a vibrant knowledge society.
- This transformation will be achieved by making school and college education more multidisciplinary.
- Undergraduate degrees will have a flexible duration of either three or four years, with multiple exit options within this period, along with appropriate certifications.
- The establishment of Model public universities, known as MERUs (Multidisciplinary Education and Research Universities), will provide holistic and multidisciplinary education, on par with prestigious institutions like IITs and IIMs.
- By a certain point in time, at least a specific percentage of learners passing through the school and higher education system will have exposure to vocational education.
- Furthermore, there are several recommendations within NEP:
- The introduction of the “Design Your Degree” program, which has been adopted by Jammu University, in Higher Education Institutions for personalized, interdisciplinary learning.
- The development and distribution of educational content that is tailored to local needs and languages.
- Encouraging research and innovation in the field of education, with a focus on marginalized communities.



HERE ARE SOME OF THE SALIENT FEATURES OF NEP IN THE HIGHER EDUCATION SECTOR:

- The aim is to increase the Gross Enrolment Ratio in higher education, including vocational education, significantly.
- Institutions will now have the option to offer Open Distance Learning and online programs, provided they are accredited for such offerings.

These initiatives reflect a comprehensive approach to improving the quality and accessibility of education in India, with a strong emphasis on multidisciplinary learning and flexibility in higher education.

PARLIAMENTARY PANEL ON HEALTH AND FAMILY WELFARE PRESENTED “IMPLEMENTATION OF PRADHAN MANTRI TB MUKT BHARAT ABHIYAN (PMTBMBA)” REPORT

ABOUT TUBERCULOSIS (TB)

- Tuberculosis (TB) is an infectious disease caused by the bacteria *Mycobacterium tuberculosis*, primarily affecting the lungs.
- The World Health Organization's Global TB report for 2022 indicates that roughly a quarter of the world's population, around 2 billion people, are latently infected with TB.
- In India, 3 out of every 1000 people have active TB.



- The Pradhan Mantri TB Mukat Bharat Abhiyan (PMTBMBA) aims to eliminate TB by 2025, which is five years ahead of the Sustainable Development Goals set for 2030.
- As a part of this initiative, Ni-kshay Mitras provide additional support to all on-treatment TB patients who have consented to receive support in selected health facilities.

KEY OBSERVATIONS REGARDING TB INCLUDE:

- The BCG vaccine (Bacille Calmette-Guerin vaccine for TB) does not offer sufficient protection to adolescents and adults who are at high risk of developing TB disease.
- Proper decontamination of biomedical waste is crucial in preventing the transmission of TB.
- The Ni-Kshay adoption model alone cannot be considered the mainstay of combating the disease under PMTBMBA.

RECOMMENDATIONS INCLUDE:

- Accelerating research programs to study the effectiveness of the BCG vaccine and considering the introduction of booster doses of recombinant BCG vaccine in the universal immunization program.
- Establishing a robust selection process for Ni-kshay Mitras and implementing effective monitoring mechanisms to ensure they fulfill their responsibilities diligently.

INITIATIVES AIMED AT CONTROLLING TB INCLUDE:

- The NIKSHAY Portal, which serves as the National TB information system, acting as a one-stop solution to manage information on TB patients.
- The “Find. Treat. All. #EndTB” joint initiative by WHO, the Stop TB Partnership, and the Global Fund, which seeks to diagnose, treat, and report on 40 million people with TB.
- The Moscow Declaration of 2017, which represents global efforts to combat TB.

PERSONALITY RIGHTS (PRS)

- The Delhi High Court has issued an ex-parte, omnibus injunction that prohibits entities from using a celebrity's Publicity Rights (PRs).
- An "ex-parte injunction" is a legal order that is granted to one party without hearing the other side involved in the case.
- An "omnibus injunction" is an order that is issued against any unauthorized use of a celebrity's PRs, even if such uses are not explicitly mentioned in the legal plea.
- PRs, in this context, refer to various aspects of a celebrity's persona, such as their name, voice, signature, images, or any other distinctive features that are easily recognizable by the public. These features serve as markers of a celebrity's personality.
- The exclusive right to derive commercial benefits from these distinct features belongs to the owner or creator of the PRs.
- It's important to note that PRs and their protection are not explicitly mentioned in Indian statutes. Instead, their safeguarding can be inferred from legal principles related to the right to privacy and the right to property.

GOVERNMENT FORMS A COMMITTEE ON SIMULTANEOUS ELECTIONS

The government established a committee led by former President Ram Nath Kovind to assess the viability of concurrent elections, often referred to as "one nation-one election."

- Under the concept of simultaneous elections, the voting for Lok Sabha and State Assemblies occurs concurrently, allowing voters in a particular constituency to cast their votes for both on the same day.
- Simultaneous elections used to be the standard practice until a certain point. However, due to the dissolution of some Legislative Assemblies and the Lok Sabha at various times, elections for State Assemblies and Parliament have been conducted separately.



RECOMMENDATIONS ON THE SUBJECT OF SIMULTANEOUS ELECTIONS:

- The concept of simultaneous elections was initially proposed by the Election Commission.
- Initially, the Law Commission put forward a report endorsing simultaneous elections for the Lok Sabha and State Legislative Assemblies to ensure governance stability.
- Both the Standing Committee of Parliament and NITI Aayog have

suggested that elections could be conducted in phases.

ARGUMENTS IN FAVOR OF SIMULTANEOUS ELECTIONS:

- Cost reduction in conducting elections.
- Mitigation of the extended imposition of the Model Code of Conduct, which can lead to policy paralysis.
- Minimizing the impact on the role of security forces in other security matters.

ARGUMENTS AGAINST SIMULTANEOUS ELECTIONS:

- Operational feasibility concerns, particularly in synchronizing the election cycle for the first time.
- Constitutional requirements such as the adjustment and extension of terms for the Lok Sabha and State Legislative Assemblies, along with potential amendments to provisions of the Constitution.
- The potential impact of simultaneous elections on a voter's judgment, considering that national and state issues may differ significantly.

PM WANI



- PM WANI (Wi-Fi Access Network Interface) as a scheme was approved in 2020, which aims to increase Wi-fi access throughout the country.
- The move aimed at helping accelerate the uptake of broadband Internet services.
- It was first recommended by the Telecom Regulatory Authority of India (TRAI) in 2017.

THE WANI FRAMEWORK CONTAINS THE FOLLOWING COMPONENTS:

- **Public Data Office (PDO):** It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.
- **Public Data Office Aggregator (PDOA):** It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.
- **App Provider:** It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.
- **Central Registry:** It will maintain the details of App Providers, PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

WOMEN'S RESERVATION BILL



- The women's reservation bill, formally known as the Constitution (One Hundred and Eighth Amendment) Bill, 2008, which was stuck for 27 years, is said to have been cleared by the Narendra Modi Government reserving 33 per cent seats for women in Parliament and legislative assemblies.
- Other than that, the Geeta Mukherjee Joint Committee and the Jayanti Natarajan Committee also form the basis of the details of this historic proposal.
- Currently, women occupy less than 15 per cent of Lok Sabha seats, and the figure is even lower in state assemblies, according to PRS Legislative research.



HISTORY OF WOMEN'S RESERVATION BILL

- The bill was first introduced in Lok Sabha as the 81st Amendment Bill in September 1996 by then Prime Minister Deve

Gowda-led United Front government.

- The bill failed to get the approval of the House and was referred to a joint parliamentary committee which submitted its report to Lok Sabha in December 1996.
- However, the bill lapsed with the dissolution of the Lok Sabha.
- It was reintroduced in 1998, 1999, 2002, and 2003.
- The last concrete development on the issue was in 2010 when Rajya Sabha passed the bill amid a ruckus with marshals escorting out some MPs who opposed the move.

However, the bill lapsed as it could not be passed by Lok Sabha.

ARGUMENTS FOR THE BILL

- One of the key arguments in favour of the bill is that affirmative action is needed to better the condition of women in Indian society.
- As per stats revealed by the central government, women make up 14.94 per cent of the seats in Lok Sabha while the number falls to 14.05 per cent in Rajya Sabha.
- The percentage is even lower and often falls to single digits in the state assemblies.

Again, women's representation is needed in the decision-making process to address issues such as the high percentage of crimes against women, low participation of women in the workforce, low nutrition levels, and a skewed sex ratio.

ARGUMENTS AGAINST THE BILL

- Diverse Women's Community:** Women

do not constitute a uniform or homogeneous community, akin to a caste group.

- **Constitutional Equality Concerns:** The reservation of seats for women would run afoul of the Constitution's guarantee of equality.

CHALLENGES IN RESERVING RAJYA SABHA SEATS:

- Many also contend that it is not feasible to allocate reserved seats in the Rajya Sabha due to the existing electoral system for the upper house.
- Rajya Sabha MPs are chosen through a single transferable vote method, where votes are initially allocated to the most preferred candidate and then progressively to the subsequent preferred candidates, making it incompatible with the notion of reserving a specific number of seats for any particular group – even for SCs and STs.

GST APPELLATE TRIBUNAL

The Finance Ministry notified the constitution of 31 Appellate Tribunals across 28 States and eight Union Territories for the Goods and Services Tax (GST), setting the stage to resolve a growing number of taxpayer disputes with the Revenue Department.



- The Central Goods and Service Tax Act, 2017 (CGST Act) in Section 109 mandates for the constitution of a GSTAT and its Benches.
- The GSTAT will be the specialized appellate authority for resolving disputes under the GST laws.

COMPOSITION

- The GST Tribunal will have one principal bench in New Delhi and as many benches or boards in states as decided by each state, subject to approval of the council.
- North-eastern states could opt for one bench for 2-3 states and an additional bench for very far-flung areas.
- The principal bench and state boards would have two technical and two judicial members each, with equal representation from the Centre and states.



NATIONAL JUDICIAL DATA GRID

Chief Justice of India D. Y. Chandrachud announced the onboarding of the Supreme Court on the National Judicial Data Grid (NJDG) in open court on 14th September, 2023.



ABOUT

- NJDG was established as an online platform within the framework of the eCourts Project, which serves as a comprehensive repository housing records of orders, judgments, and case specifics from a vast network of 18,735 District & Subordinate Courts and High Courts.
- This database receives continuous updates in near real-time ensuring the availability of data pertaining to the judicial proceedings and decisions within all computerized district and subordinate courts across the nation.
- Notably, all High Courts have seamlessly integrated with NJDG through web services, offering a user-friendly access portal for the litigant public.

SIGNIFICANCE

- NJDG works as a monitoring tool to identify, manage & reduce pendency of cases.

- It helps to provide timely inputs for making policy decisions to reduce delays in disposing of cases and helps in reducing case pendency.
- It also facilitates better monitoring of court performance and systemic bottlenecks, and, thus, serves as an efficient resource management tool.
- To track cases related to land disputes, Land Records data of 26 States have been linked with NJDG.

INTERNATIONAL RECOGNITION

- In the Ease of Doing Business report for 2018, the World Bank (WB) commended NJDG for its role in generating case management reports that facilitate contract enforcement.
- This recognition underscores NJDG's significance in improving the business



ANNA DAATAS



"Farmers are Anna Daatas, protect their rights and future,"-The President of India



President Droupadi Murmu presenting the Plant Genome Saviour Farmer Recognition, 2020-21 to Parappi Anma, a tribal farmer from Vithura in Kerala, in New Delhi on Tuesday. SHIV KUMAR PUSHPAKAR

DETAILED ANALYSIS

- President Droupadi Murmu called for concrete steps to conserve traditional seed varieties and ecofriendly farming practices, while inaugurating a global seminar organised by the International Treaty on Plant Genetic Resources for Food and Agriculture and the Food and Agriculture Organisation on farmers' right.



IMPORTANCE OF CONSERVING TRADITIONAL SEED VARIETIES

- Traditional seeds are the result of human selection and management, as well as natural mechanisms of evolution, and are the basis of all crop improvement.
- Traditional seed crops are an integral part of genetic diversity and are crucial for crop improvement and building resilience against climate change.
- Traditional seed systems are governed by local farmers and are crucial for securing livelihoods and adaptation to climate change.
- Traditional seed practices strengthen the social ties among the local people and promote in situ conservation of traditional crop diversity.

IMPORTANCE OF OPTING FOR ECO-FRIENDLY FARMING PRACTICES:

- Eco-friendly farming practices promote soil health, reduce water usage, and minimize the use of synthetic fertilizers and pesticides.
- Eco-friendly farming practices help to preserve the natural environment and biodiversity.
- Eco-friendly farming practices can help to mitigate the effects of climate change by reducing greenhouse gas emissions and promoting carbon sequestration.
- Eco-friendly farming practices can lead to higher yields, better crop quality, and increased profitability for farmers.

THE IDEA OF FRATERNITY IN INDIA



- The word fraternity is derived from French to mean brotherhood, friendship, community and cooperation.
- It is a sense of common brotherhood among all Indians giving unity and solidarity to social life.
- The concept of Fraternity involves the emancipation and empowerment of the people since the time of Plato.
- It remains a significant tenet of liberal political philosophy along with the idea of liberty and equality.

THE CONCEPT OF FRATERNITY IN THE INDIAN CONSTITUTION

- While submitting the Draft Constitution to the President of the Constituent Assembly (on 21 February 1948), B R Ambedkar (the chairman of the Drafting Committee) wrote that
- The drafting committee had added a clause on "fraternity" in the Preamble, even though it was not part of the Objective Resolution.
- As a result, the Preamble (adopted on 26

November 1949, came into effect on 26 January 1950 and amended by the 42nd Amendment 1976) to the Indian Constitution mentions –

1. "Fraternity assuring the dignity of the individual and unity and integrity of the Nation".
1. Article 51A (Fundamental Duties) added to by the 42nd Amendment 1976 referred to the duty of every citizen 'to promote harmony and the spirit of common brotherhood amongst all the people of India'.
- Both the Preamble and the Fundamental Duties cannot be legally enforced, but have a moral, spiritual appeal.

WHY IS FRATERNITY ESSENTIAL?

- It is one of the four pillars of constitutional morality spelt out in the Preamble of India's Constitution: justice, liberty, equality, and fraternity.
- Without fraternity, equality and liberty can't be achieved, because the idea of fraternity is closely linked to social solidarity.

CHALLENGES THAT THE CONCEPT FACE IN INDIA:

- Fraternity remains the least understood, least discussed and the least practised of the four pillars of constitutional morality.
- Inequality and prejudice.
- Politics of hate and weak democratic opposition.
- Inter-state conflicts and challenges to internal security like left-wing extremism, terrorism, cybersecurity, fake news, etc.

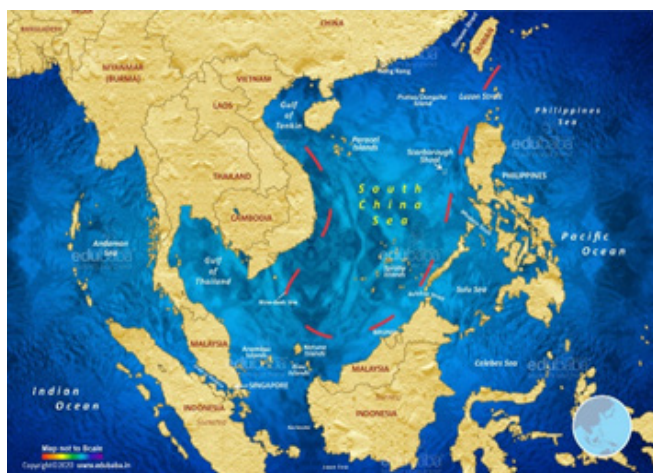
STEPS TAKEN BY THE INDIAN GOVERNMENT:

- Inter-state councils
- Zonal councils
- Social initiatives like Ek Bharat – Shrestha Bharat, National Foundation for Communal Harmony (NFCH), etc.

THREAT IN SOUTH CHINA SEA



- The United States and Vietnam warned against the 'Threat or Use of Force' in the disputed South China Sea, days after the latest clash involving Chinese vessels.



- The competing claims on the strategic waterway must be settled under international norms.

CLAIMS OF BEIJING ON THE SOUTH CHINA SEA

- Beijing claims almost the entire sea, through which trillions of dollars in trade passes annually.

- It has ignored an international court ruling that its assertion has no legal basis.
- China deploys hundreds of vessels to patrol the South China Sea and swarm reefs.

ABOUT SOUTH CHINA SEA

- South China Sea is an arm of western Pacific Ocean in Southeast Asia.
- It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
- Bordering states & territories (clockwise from north): People's Republic of China, Taiwan, the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam.
- It is connected by Taiwan Strait with the East China Sea and by Luzon Strait with the Philippine Sea.



WHAT MAKES IT SO IMPORTANT?

This sea holds tremendous strategic importance for its location as it is the connecting link between the Indian Ocean and the Pacific Ocean. (Strait of Malacca).

As per UNCTAD, 1/3rd of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.

CHALLENGES

China disregards international laws like the UN Convention on the Law of the Sea, coupled with a sense of superiority and denial.

China's assertive behaviour, along with North Korea's provocative actions, has drawn US into the tensed region, further complicating matters.

Militarization of the South China Sea makes it more challenging to manage.

Additional complications stem from the unclear geographic scope of the South China Sea, disagreements regarding dispute resolution mechanisms, varying approaches to conflict management and the uncertain legal status of the Code of Conduct (COC).

PARTNERSHIP FOR GLOBAL INFRASTRUCTURE INVESTMENT (PGII)



On the sidelines of the G20 Summit in New Delhi, a Memorandum of Understanding (MoU) has been signed between India, US, Saudi Arabia, the European Union, the UAE, France, Germany and Italy to establish the India- Middle East-Europe Economic Corridor (IMEC).



INDIA-MIDDLE EAST-EUROPE ECONOMIC CORRIDOR

- Envisioned as a network of transport corridors, including railway lines and sea lanes that can aid economic growth through integration between Asia, Arabian gulf and Europe.
- This project is a part of PGII, a western initiative for funding infrastructure project seen as a counter to China's Belt and Road Initiative.

What is PGII?

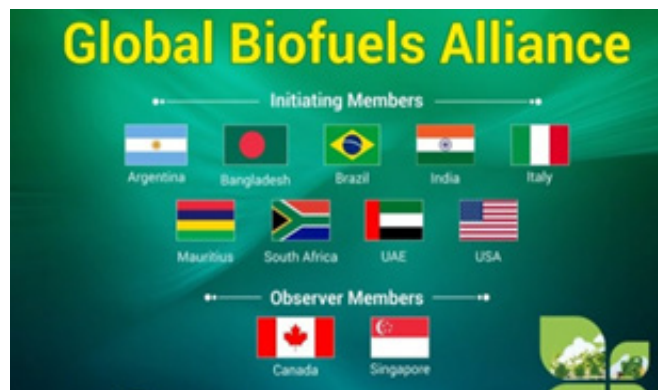
- First announced in June, 2021 during the G7 summit in the UK.
- US President Joe Biden had called it the Build Back Better World (B3W) framework.
- In 2022, during G7 summit in Germany, the PGII was officially launched as a joint initiative to help fund infrastructure projects in developing countries through public and private investment.
- It aims to mobilise nearly \$600 billion from the G7 by 2027 to invest in critical infrastructure that improves lives and delivers real gains for all of our people.
- The state purpose of PGII and Belt and Road Initiative (BRI) is to help secure funding for countries to build critical infrastructure such as roads, ports, bridges and communication setups to enhance global trade and cooperation.

WHY WAS AN ALTERNATIVE TO BRI NEEDED?

- While BRI has helped China to expand its footprint, it has been criticised for providing unsustainable debts to countries that will be unable to repay them.
- 2019 World Bank Report, among the 43 corridor economies for which detailed data was available, 12 could face a situation where debts were not sustainable, which could lead to public assets being handed over to foreign contractors or to China itself.
- India opposes BRI for passing through Indian territory illegally occupied by Pakistan.
- The G7 say their initiative is meant to be transparent, focused on building climate change resilient infrastructure, and help in achieving objectives of gender equality and health infrastructure development.

GLOBAL BIOFUELS ALLIANCE

- India launched the Global Biofuels Alliance, with Prime Minister Narendra Modi urging G-20 nations to join the initiative with a plea to take blending of ethanol with petrol to 20% globally.
- The alliance was launched by the PM of India on the sidelines of the G20 Summit, along with a host of global leaders including U.S. President Joe Biden, Brazilian President Luiz Inacio Lula da Silva, Bangladesh Prime Minister Sheikh Hasina and Italian Prime Minister Giorgia Meloni.
- Besides India, the initiating members include Argentina, Bangladesh, Brazil, Italy, Mauritius, South Africa, the UAE and the U.S. Canada and Singapore are observer countries.



- Our PM also proposed launching the G-20 Satellite Mission for Environment and Climate Observation and also urged leaders to commence work on the Green Credit Initiative.

WAY AHEAD

- Energy transition is a significant need for the 21st century world considering the challenge of climate change.
- Trillions of dollars will be required for an inclusive energy transition and for that developed countries will need to play a more active role in this regard.

G-20 AND IT'S TAKEWAYS



- G-20, comprising 19 countries and the European Union was founded in 1999.
- The G20 is a forum for finance ministers and central bank governors, which was upgraded in 2007 to include heads of state and governments.

WHAT ARE THE TAKEAWAYS FROM THE SUMMIT?

- New Delhi Declaration that forged a consensus between the G-20 nations, bitterly divided between the G-7 – EU and Russia-China on the issue of Ukraine.
- The final language is a shift from the “Bali Paragraphs”, with language critical of Russia erased on a firm proposal from G-20 hosts of past and future years- Indonesia, India, Brazil and South Africa.
- The final 83 paragraph declaration with eight paragraphs on “geopolitical issues” on which consensus was reached included language on everything from climate action, financing and fossil fuel phase out to debt restructuring, the bio-fuel alliance, health, digital infrastructure and other issues.
- Bringing the African Union into the G-20 fold will be credited to India and the future summits in Brazil and South Africa are likely to take India's Global South Initiative forward.



INDIA HOSTING THE G20 SUMMIT HAS SEVERAL OTHER BENEFITS, INCLUDING:

- Showcasing India's global leadership: India sees the G20 presidency as an opportunity to demonstrate its capacity

to serve as a bridge to the Global South, amid China's absence.

- Strengthening India's agenda: The 200+ events planned in the run-up to the 2023 Summit will strengthen India's agenda and the six thematic priorities of India's G20 presidency.

SIX THEMATIC PRIORITIES OF INDIA'S G20 PRESIDENCY

- Green development
- Climate finance
- Resilient growth
- Technological transformation
- Multilateral institutions reform
- Women led development
- Providing a platform for international cooperation to deal with global issues, outlining the country's approach to the G20.
- Uniting nations from both the North and the rapidly developing South.

AFRICAN UNION



- The African Union was admitted as a new member of the G20.



AFRICAN UNION

- The African Union (AU) is a continental union consisting of 55 member states located on the continent of Africa.
- Established in 26th May 2001 in Addis Ababa, Ethiopia, and launched in Durban, South Africa.
- The objective is to achieve greater unity and solidarity between the African countries and Africans, promote peace, security, and stability on the continent, and accelerate the political and socio-economic integration of the continent.

REASON BEHIND THE FORMATIONS OF AU

- It's predecessor, Organisation of African Unity (OAU) aimed to bring African nations together and resolve common issues through collective actions.
- Mainly focused to help liberate the colonised countries.
- However, OAU failed to boost political and economic integration among its member countries.

- Therefore, it was decided to reform the OAU during the mid- 1990, which ultimately led to the formation of the AU.

MAJOR INITIATIVES

- African Continental Free Trade Area: A free trade area established in 2018.
- Agenda 2063: A strategic framework for the socio-economic transformation of the continent over the next 50 years.
- Silencing the Guns by 2020: An initiative aimed at preventing conflicts.

INDIA-AFRICA RELATIONS CONTEXT

- India has been a significant partner to Africa historically, culturally, and economically.
- India's Africa policy has pivoted on capacity building, trade relations, and infrastructure development.
- The India-Africa Forum Summit (IAFS) is a triennial event that offers a platform for interaction between India and African countries.

SIGNIFICANCE FOR THE WORLD

- Africa is home to some of the world's fastest-growing economies, making it a significant player in global economic affairs.
- The continent is rich in natural resources, which are of global strategic interest.
- AU plays a crucial role in conflict resolution and peacekeeping on the continent.

INDIA – AUSTRALIA ECONOMIC COOPERATION AND TRADE AGREEMENT



ECTA

- Signed in April, 2022 and implemented in Dec, 2022.
- A significant milestone in the comprehensive strategic partnership.
- India stands as one of Australia's prominent partners in the Indo - Pacific region.

AIMS OF ECTA

- To boost trade, augment economic ties.
- Enhance promising India- Australia relation.
- Explore unexplored trade potential that exist between both countries.
- Helping economic ties and business to thrive on both sides.

It outlines trade in:

- Goods and services
- Rules of origin
- The Technical Barriers to Trade (TBT), sanitary and Phytosanitary measures (SPS)

- Custom procedures and trade facilitation, trade remedies, legal and institutional issues and the movement of natural person.
- Ensures Indian goods on all tariff lines get access to Australian market at zero customs duty.
- Ascertains that 90% of Australian exports by value get zero duty access to the Indian market.
- Cheaper raw materials' availability and faster approval for medicines, end double taxation.

WHY A STRONG BILATERAL RELATION BETWEEN INDIA AND AUSTRALIA IS IMPORTANT?

- Australia (14th largest economy globally) and India is one of the world's fastest growing major economy with 1.42 billion people and a technology power house and a major regional power.
- India is Australia's 6th largest export market in 2020.
- India is not only world's 5th largest economy but also Australia's 7th largest trading partner.
- By consolidating the growth of the market share of Indian products and services, the ECTA has paved the way for the emergence of new markets for Indian goods in Australia.
- It will ensure that India's labour intensive sectors (textile, leather footwear, gems and jewellery, fish products) reap substantial benefits by gaining duty free access.
- By easing Australian regulatory process ensures faster entry of Indian drugs in Australian market boosting Indian pharmaceutical sector.

- ECTA is expected to boost total bilateral trade exceeding \$45- 50 billion by 2035.
- Create an additional one million jobs and increase India's export to Australia by \$10 billion in the coming years.
- Other provision like post study visa, liberal grants of agricultural visas will expand job opportunities for Indians bolstering remittances and investment flows from Australia to India.
- Digital transformation
- Collective fight against terrorism, terror financing and cyber disinformation.
- Issues faced by global south in multilateral platforms.
- He announced the establishment of Multi- model connectivity and economic corridor linking Southeast Asia, India, West Asia and Europe.
- Also offered to share New Delhi's digital public infrastructure stack with ASEAN partners.
- He also talked about Code of Conduct for South China Sea which should be effective and in compliant with the UN Convention on the Law of the Sea (UNCLOS).



ASEAN – INDIA SUMMIT



- At the annual ASEAN- India Summit, the Prime Minister of India has presented 12 point proposal to expand cooperation between India and ASEAN.

AREAS OF CO-OPERATION

- Connectivity
- Trade

ASEAN

- ASEAN is a 10 member regional, intergovernmental organisation.
- It aims to promote economic, political, security, military, educational, and socio-cultural integration between its members and other countries in Asia.
- It was established in 1967 in Bangkok (Thailand), with the signing of the ASEAN.
- Declaration (Bangkok Declaration) by its Founding members.



FLAG OF ASEAN

- Secretariat-Jakarta (Indonesia).
- Its first founding members are Indonesia, Malaysia, Philippines, Singapore and Thailand.
- Later 5 members are Brunei
- Darussalam(1984); Vietnam(1995);
- Lao PDR and Myanmar(1997); Cambodia(1999).



ONE SUN, ONE WORLD, ONE GRID (OSOWOG)



- Conference on transnational grid interconnections for One Sun, One World, One Grid (OSOWOG) was held in New Delhi.

- The Union Minister for Power stated that OSOWOG will make the round- the clock Renewable Energy much cheaper and will also reduce the necessity for energy storage.

OSOWOG

- The initiative aims to connect different regional grids through a common grid that will be used to transfer RE power and thus realize potential of RE sources, especially Solar energy.
- It is led by India and UK in collaboration with International Solar Alliance and World Bank group.

CHALLENGES IN TRANSNATIONAL GRID INTERCONNECTIONS

- Maintaining a stable grid over a large geographical area.
- Mechanism of cost sharing as participating countries are both rich and poor nations.
- India has already established cross border interconnections with its neighbours through which electricity is exported to Nepal, Bangladesh, and Myanmar and imported from Bhutan.
- A MoU on BIMSTEC Grid Interconnection was also signed in 2018.

MALAVIYA MISSION – TEACHERS TRAINING PROGRAMME



The scheme has been launched by the Union Ministry of Education & Skill development & Entrepreneurship.

OBJECTIVES

- To provide tailored training programs for teachers and enhance the quality of education at higher educational institutions.
- It will capacitate 15 lakh teachers across India through 111 Malaviya Mission Centres. These centres were formerly known as Human Resource Development Centres.
- Seeks to make educators future ready, improve training quality, build leadership skills, and align with the goals of the National Education Policy.
- The G20 meet in Manipur focused on ICT, health care, tourism and handloom.
- In Tripura, it looked at clean energy.
- In Mizoram the focus was on business partnerships.
- In fact, it was Nagaland that had the first taste of the G20 when delegates went there during the Hornbill Festival held in December 2022.
- In Assam the G20 looked at sustainable financing solutions and the Youth20 Inception event among other issues.

G-20: WHAT'S IN IT FOR INDIA'S NORTH EAST



India's G20 presidency started in December last year and since then hundreds of meeting have been held in different states.

SIGNIFICANCE OF G-20 FOR NORTH-EAST INDIA

- The region has tremendous tourism potential including 5% share of global tourism.
- India plans to showcase Northeast region with its potential in renewable energy, tourism and business opportunities.
- Initiatives like the B20 India with a risk and

an opportunity as it seeks to balance geopolitical tensions while trying to showcase its growing power.

Therefore, the G20 is significant for Northeast India as it provides an opportunity to showcase the region's potential and promote its inclusive and sustainable economic growth.

BLACK SEA GRAIN DEAL



RUSSIA TO REVIVE THE BLACK SEA GRAIN DEAL

- Turkey's President Recep Tayyip Erdogan showed confidence that Russia would revive Black Sea Grain Deal.
- On the other hand, Russia's President Vladimir Putin said that the deal will not be restored until the West meets its obligations to facilitate Russian agricultural exports.

WHAT IS THE BLACK SEA GRAIN DEAL— AND WHY IS IT SIGNIFICANT?

EXPRESS NEWS SERVICE
NEW DELHI, SEPTEMBER 5

TURKEY'S PRESIDENT Recep Tayyip Erdogan on Monday said he was confident Russia would "soon" revive the Black Sea grain deal, under which safe passage was assured to ships carrying grain from Ukraine in the Black Sea. Russia's President Vladimir Putin, however, said the deal will not be restored until the West meets its obligations to facilitate Russian agricultural exports.



country is facing trouble exporting its own agricultural products and fertilisers because of the sanctions imposed by the West.

BLACK SEA GRAIN DEAL

- Ukraine is among the world's biggest exporters of food grains (wheat, corn etc.) and major contributor to the United Nation's Food Aid Programmes.
- After Russia's Ukraine invasion, it blocked Ukraine's ports, which led to rise in food price creating the fear of food shortage in some parts of the world.
- To tackle the situation, the UN and Turkey on July 22, 2022 got Russia to agree to the Black Sea Grain Initiative.
- It allowed cargo ships to travel from and to three Ukrainian ports of Odesa, Chornomorsk and Pivdennyi (Yuzhny).

WHY DID RUSSIA REFUSE TO EXTEND THE BLACK SEA GRAIN DEAL?

- Russia claim that the promises made to it under the deal have not been met.
- Russia is facing trouble in exporting its own agricultural products and fertilizers because of sanctions imposed by the West.
- Barriers on payment platforms, insurance, shipping and other logistics are hampering its exports.
- While Russia agreed to the deal to ensure global food security, Ukraine has exported mainly to high and middle income countries.
- On the other hand, Moscow is about to conclude a deal with six African countries to export grain.

VERDICT ON SAME-SEX MARRIAGE

- A Constitution Bench of 5 judges in the Supreme Court recently held that only the legislature can recognize or regulate same sex marriage.
- The Bench reasoned that since there was no fundamental or unqualified right to marry, the courts cannot intervene.



WHAT IS THE SPECIAL MARRIAGE ACT (SMA) 1954?

- Marriages in India can be registered under the respective personal laws Hindu Marriage Act, 1955, Muslim Personal Law Application Act, 1937, or under the Special Marriage Act, 1954.
- It is the duty of the Judiciary to ensure that the rights of both the husband and wife are protected.

SOME POSITIVE OUTCOME OF THE VERDICT

- The Supreme Court on Tuesday held that transgender persons in heterosexual relationships have the right to marry under existing law.
- A Constitution Bench headed by Chief Justice of India D.Y. Chandrachud held that "transgender persons in

heterosexual relationships have the freedom and entitlement to marry under the existing statutory provisions".

- Chief Justice D.Y. Chandrachud held that Regulation 5(3) of the Adoption Regulations, which bars unmarried partners from being prospective adoptive parents, was ultra vires the Juvenile Justice (JJ) Act and violative of the fundamental rights of queer couples.
- Justice Bhat said that the Central Adoption Resource Authority (CARA) and the Centre should appropriately consider the realities of de facto families, where single individuals were permitted to adopt and then start living in a non matrimonial relationship.

EARLIER VIEWS OF SUPREME COURT ON SAME-SEX MARRIAGES:

- Marriage as a Fundamental Right (Shafin Jahan v. Asokan K.M. and others 2018)
- LGBTQ Community entitled to all Constitutional Rights (Navjet Singh Johar and others v. Union of India 2018): The SC held that members of the LGBTQ community "are entitled, as all other citizens, to the full range of constitutional rights including the liberties protected by the Constitution".

WHAT ARE THE ARGUMENTS IN FAVOUR OF SAME SEX MARRIAGE?

- Equal Rights and Protection Under the Law: All individuals, regardless of their sexual orientation, have the right to marry and form a family.
- Strengthening Families and Communities: Marriage provides social and economic benefits to couples and their families which will also benefit the same-sex people.
- Biological gender is not 'absolute': The

Supreme Court of India says that biological gender is not absolute, and that gender is more complex than just one's genitals. There is no absolute concept of a man or a woman.

- Global Acceptance: In 32 countries, same-sex marriage is legal.

WHAT ARE THE ARGUMENTS AGAINST SAME SEX MARRIAGE?

- Religious and Cultural Beliefs: Many religious and cultural groups believe that marriage should only be between a man and a woman.
- Procreation: Some people argue that the primary purpose of marriage is procreation, and that same-sex couples cannot have biological children.
- Issues with Adoption of Childrens: When queer couples adopt children, it can lead to societal stigma, discrimination, and negative impacts on the child's emotional and psychological well-being, especially in Indian society where acceptance of the LGBTQIA+ community is not universal.

WHAT COULD BE THE WAY FORWARD?

- Raise Awareness
- Legal Reforms: Amendments in the Special Marriage Act, 1954 to allow same-sex couples to legally marry and enjoy the same rights and benefits as opposite-sex couples.
- Collaboration: The legalisation of same-sex marriage requires a concerted effort from all stakeholders, including the LGBTQIA+ community, the government, civil society, and religious leaders.

MONEY BILL

Before the SC: When is a 'Money Bill' not one?

APURVA VISHWANATH
16 SEP 2023, 06:00 PM IST

A SEVEN-JUDGE Bench of the Supreme Court with three judges dissenting has held that the Speaker's use of the Money Bill route to pass key legislation, Chief Justice of India D.Y. Chandrachud made the observation while hearing a plea challenging certain amendments to the Prevention of Money Laundering Act (PMLA). The bench will eventually decide whether a law was validly categorised as a Money Bill or only an ordinary law.

Money Bill
Article 110 of the Constitution deals with Money Bills. A Money Bill is one that in the opinion of the Lok Sabha Speaker deals with taxation, appropriation of public funds – the Consolidated Fund of India or the Contingency Fund of India. A Money Bill can only be introduced in Lok Sabha, and the Speaker certifying it as a 'Money Bill' cannot be challenged in court.

Since the additional clause, the government has introduced several key legislations as Money Bills, bypassing Rajya Sabha. The Opposition has argued that this was done only because the government did not have the numbers to get these passed in Rajya Sabha.

Before the Bench
The constitutionality of these key laws – PMLA, Aadhaar Act, and the 2017 amendment altering service conditions of teachers – will be examined in light of whether they qualified as Money Bills. While PMLA and

Aadhaar Act have been substantially upheld by the SC, the court had struck down the 10th Amendment as unconstitutional. In July 2022, a three-judge Bench comprising Justices A.M. Khanwilkar, Dinesh Maheshwari, and J. Chandrachud had upheld the PMLA and the vast powers of the ED. However, the Bench had left the validity of amendments to the PMLA through the Money Bill route open for a larger Constitution Bench to hear.

The Finance Act passed in 2015, 2016, 2018, and 2019 brought in several amendments to the PMLA. Finance Bills passed during the Budget are introduced as Money Bills under Article 110.

LONGER VERSION ON
indianexpress.com/tag/indian-express

- A 7 judge bench of the Supreme Court is going to hear a batches of pleas challenging the centre's use of the Money Bill route to pass key legislations.
- The CJI has made the observation that the bench will examine whether a law was validly categorised as a Money Bill or only to circumvent scrutiny in Rajya Sabha.
- Article 110 of the Constitution of India deals with Money bills.
- A money bill is one that in the opinion of the speaker of Lok Sabha deals with taxation, appropriation of public funds – the Consolidated Fund of India or Contingency Fund of India.
- Under article 110 (1), it deals only with matters specified in article 110 (1) (a) to (g) – taxation, borrowing by the government and appropriation of money from the consolidated fund of India.
- Article 110 (1) (g) – any matter incidental to any of the matters specified in articles 110 (1) (a) – (f) can also be a Money bill. This additional clause helped government to introduce key legislations as Money Bill.
- Money Bill can be introduced only in Lok Sabha.
- It need not be passed by Rajya Sabha.

- For example, Union Budget.
- Under article 110 (3) – the decision of the speaker is final whether a bill is a money bill or not.
- However, in 2018 Aadhaar Case, the SC said that speaker's decision will be subjected to judicial scrutiny.

HAMAS, THE PALESTINIAN MILITANT GROUP

What is Hamas, the Palestinian militant group?

NEWS ANALYSIS

Hamis Jithari

"We have decided to put an end to all of the occupation's crimes. The time is over for them (Israel) to (continue to) act without accountability," said Mohammed Deif, the shadowy commander of al-Qassam Brigades, Hamas's military wing, on October 7. His audio statement was rebroadcast on TV after Hamas launched an unprecedented attack that caught Israel by surprise. "Thus, we announced the 'al-Aqsa Flood' operation," he said. The next day, Hamas carried out its largest attack on Israel from Gaza, killing at least 300 people and leaving the bloodiest blow to Israel in decades. In response, Israel has declared war on the outfit, killed over 100 Gazans in an air strike and is preparing for a major ground offensive. The Palestine issue is back to the fore of the West Asian conflict.

The roots
The roots of Hamas go back to the Muslim Brotherhood. The Brotherhood, established by Egyptian Islamist Hasan al-Banna in 1928, made a presence in the British-ruled Palestine in the 1930s. Its focus had been on reorienting Muslim society, while the Palestine Liberation Organisation (PLO), founded in 1964, championed the Palestinian nationalist sentiments.

The Brotherhood's approach was that the time for "jihad" had not come yet and they should first rebuild a strong, pious Islamic society – they called it "the upbringing of an Islamic generation". During this time, Israel established

contacts with the Brotherhood leadership in the occupied territories. Sheikh Ahmed Yassin, the spiritually challenged, half-blind cleric of the Brotherhood, established al-Mujama'at al-Islami (The Islamic Centre) in 1971. Israel recognised the Centre first as a charity and then as an association, which allowed Yassin to raise funds, build mosques and set up educational institutions, including the Islamic University of Gaza. But the 1979 Islamic Revolution in Iran changed the landscape of Islamic politics across West Asia. Islamist organisations, having witnessed the political success of the Muslims in Iran, started becoming politically more ambitious and active.

The rise
Hamas was established after the first intifada broke out in 1987. The occupied territories were swept by a mass uprising. The Brotherhood found it an opportunity to enter the struggle against the occupation. On December 14, the Brotherhood, under the leadership of Yassin, issued a leader, asking Palestinians to stand up to the Israeli occupation. In January, they issued another leaflet under the name Harakat al-Mujama'at al-Islamiyyah (the Islamic Resistance Movement) – in short, Hamas, which means "and" in Arabic. In 1989, Hamas launched its first attack, abducting and killing two Israeli soldiers.

Unlike the PLO, which was modelled around the leftist guerilla national movements in the third world, Hamas had a consistently different vision. The charter it issued on August 18, 1988 was studied with anti-Semitic remarks. According to the charter, Palestine is "an Islamic Waqf land consecrated for Muslim generations until Judgement Day". "there is no solution to the Palestine problem except jihad" and "all peace initiatives are a waste of time and acts of absurdity". It opposed the Oslo agreement, which allowed the formation of the Palestinian Authority. When the PLO recognised Israel, Hamas rejected the two-state solution and vowed to liberate the whole of Palestine "from the [Jordan] River to the [Mediterranean] Sea".

The evolution
In the 1990s and early 2000s, Hamas conducted several suicide attacks, targeting Israelis. In 2000,

when the second intifada broke out, Hamas was in the driving seat. Israel had taken a policy of targeted assassinations. In March 2004, Israel killed Sheikh Yassin with a helicopter-fired missile in Gaza city. Abdel Aziz al-Rantisi, Yassin's successor, was killed in April 2004. Khalid Mshal, another top leader, survived an attempt on his life by Mossad in Jordan. Hamas continued to remain defiant, targeting Israeli troops and settlers. In 2005, faced with Hamas's violent resistance, Israel unilaterally decided to pull out of Gaza.

Hamas's violent tactics and Israel's collective punishment of Palestinians in return seemed to have helped the Hamas gain popularity. In the 2006 legislative elections in the Palestinian territory, the Hamas won 78 out of the 132 seats, while the Fatah party, the PLO's backbone, got only 45 seats. In its election manifesto, Hamas showed, for the first time, signs of moderation. It dropped the call for the destruction of Israel, which was mentioned in the 1988 charter, and said its first priority was to change the situation for Palestinians.

Hamas turned the government, but faced opposition from Israel and most international powers. Assassinations rose between Fatah and Hamas in the West Bank. Palestinian President Mahmoud Abbas dissolved the Hamas government. This led to violent clashes between Fatah and Hamas. Fatah ousted Hamas from the West Bank and Hamas ousted the former from Gaza in 2007.

Since then, Hamas is the government in Gaza. While Hamas never gave up its right to armed resistance, the organisation sig-

nalled changes in its outlook over the years. It still refuses to recognise Israel but offered Israel a lasting ceasefire if Israel returned to the 1967 borders. In 2007, it adopted a new charter from which the anti-Semitic remarks of the original charter were expunged. The new document stated Hamas is not seeking war with the Jewish people – but with Zionism that drives the occupation of Palestine. "Hamas advocates the liberation of all of Palestine but is ready to support the state on 1967 borders without recognising Israel or ceding any rights," it said. But its today's attack, which indiscriminately targeted both Israeli troops and civilians, suggests that Hamas has returned to its original tactics.

Israel Prime Minister Benjamin Netanyahu has vowed to destroy the one-time Israeli "resistance" across West Asia, he threatened. But Israel will have to factor in two realities when it sets the goals of its military operation. Hamas may not have the capability to push Israel back to the 1967 borders. But the Islamist group has emerged as the main pillar of Palestine's political landscape, which in the past had largely been driven by secular nationalism. A solution to the Israel-Palestine problem cannot be reached without taking Hamas into consideration – unless Hamas is totally destroyed.

Two, Hamas survives. Over the years, Hamas has lost most of its founding leaders, it has been categorised as a terrorist outfit and faced Israeli attacks frequently. But it survived, to fight another day. This is its 36th anniversary. Suggest this time.

around the leftist guerilla national movements in the third world, Hamas had a completely different vision.

- According to the Charter, it issued on 1988,
- Palestine is "an Islamic Waqf land consecrated for muslim generations until Judgement Day".
- There is no solution to the Palestine problem except jihad" and all peace initiatives are a "waste of time and acts of absurdity".
- It opposed the Oslo agreement, which allowed the formation of the Palestinian Authority.
- When the PLO recognised Israel, Hamas rejected the two-state solution and vowed to liberate the whole of Palestine "from the Jordan River to the Mediterranean Sea".
- In 2017, it adopted a new charter from which the anti-Semitic remarks of the original charter were expunged.
- The new document stated Hamas is not seeking war with the Jewish people but with Zionism that drives the occupation of Palestine.
- Hamas advocates the liberation of all of Palestine but is ready to support the state on 1967 borders without recognising Israel or ceding any right.

- The roots of Hamas go back to the Muslim Brotherhood.
- The Brotherhood, established by Egyptian Islamist Hasan al-Banna in 1928 made a presence in the British ruled Palestine in the 1930s.
- Its focus had been on reorienting Muslim society, while the Palestine Liberation Organisation (PLO), founded in 1964, championed the Palestinian nationalist sentiments.
- Unlike the PLO, which was modelled

AGE OF CONSENT UNDER POCSO ACT

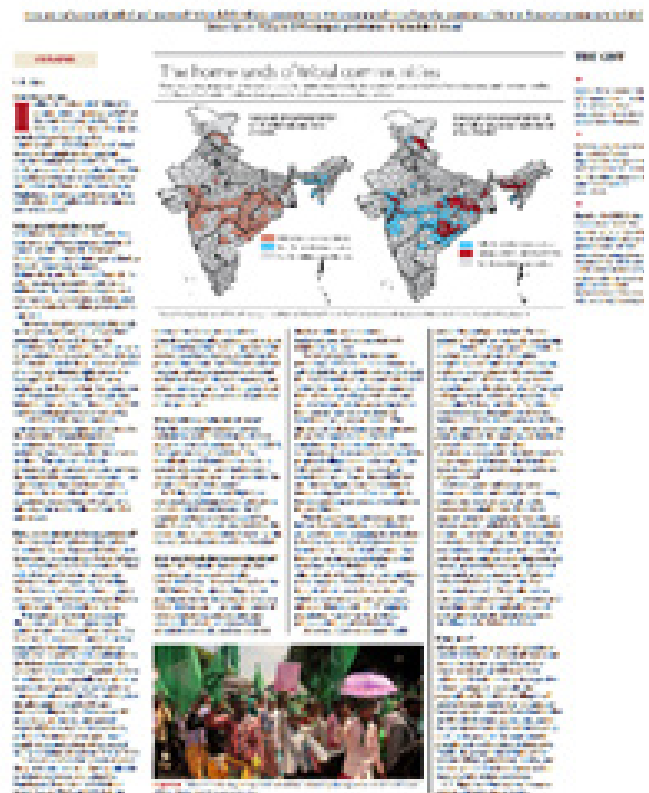
- The Ministry of Law and Justice received the report regarding the 'Age of Consent under the Protection of children from sexual offences act, 2012'.
- This report was submitted by the 22nd Law Commission, which was led by Justice(Retired) Ritu Raj Awasthi.

HIGHLIGHTS OF THE RECENT REPORT

- The age of consent under the Protection of Children from Sexual Offences (POCSO) Act in India is 18 years.
- The Law Commission of India has recommended the government to retain the existing age of consent under the POCSO Act, noting that reducing it might have damaging effects on fighting child marriage and child trafficking.
- The Commission has suggested making amendments in the legislation to better deal with cases involving tacit approval of children, though not consent in law, in the 16-18 age group.
- The Commission has also advised courts to be cautious while going through cases under POCSO as criminal intention may be missing in certain cases as adolescent love.

STATUS OF INDIA'S SCHEDULED AREAS

The state of India's Scheduled Areas



- There are 705 Scheduled Tribes (ST) communities – 8.6% of the country's population live in 26 states and 6 UTs.

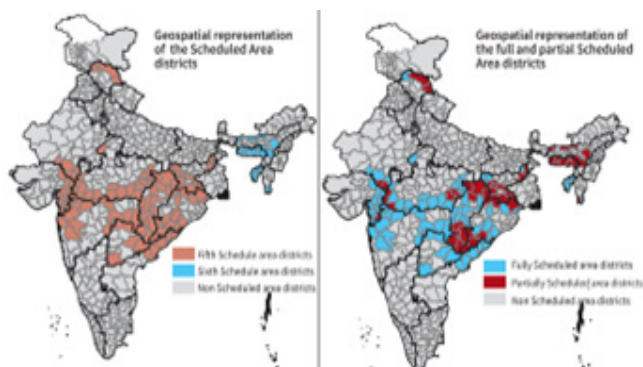
CONSTITUTIONAL PROVISIONS

- Article 244 of the Indian Constitution – the most important constitutional provision for ST.
- Article 244 (1) provides for the application of Fifth Schedule provisions to Schedule Areas notified in any state other than Assam, Meghalaya, Tripura and Mizoram.
- 6th Schedule applies to these states as per article 244 (2).

SCHEDULED AREAS

- It covers 11.3% of India's land area.

- Notified in 10 states – Andhra Pradesh, Telangana, Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh, Rajasthan, Gujarat, Maharashtra and Himachal Pradesh.



Despite persistent demand, villages with ST population have been left out of the Scheduled Areas.

- 59% of India's STs remain outside the purview of Article 244.
- They are denied laws which are applicable to scheduled areas including Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and the Biological Diversity Act, 2002.

HOW ARE SCHEDULED AREAS GOVERNED?

- The President of India notifies India's scheduled areas.
- States with Scheduled areas need to constitute a Tribal Advisory Council with up to 20 ST members.
- They will advise the Governor on matters referred to them regarding ST welfare.
- The Governor will submit a report every year to the President regarding the administration of Scheduled Areas.
- The national government can give directions.

OPERATION AJAY



Operation Ajay is an initiative launched by the Indian government to facilitate the return of Indian citizens from Israel and Palestine amidst the Israel-Hamas war.

ABOUT THE OPERATION

- The operation involves special chartered flights and other arrangements to bring back Indian citizens from the war zone.
- Indian Navy ships will also be used if necessary.
- External Affairs Minister S Jaishankar has assured that the Indian government is fully committed to the safety and well-being of its nationals abroad.

APPEALS PENDING WITH STATE INFORMATION COMMISSIONS

3.21 lakh appeals pending with Information Commissions: report

The Hindu Bureau
NEW DELHI

More than three lakh appeals and complaints are pending in 27 State Information Commissions across the country and the backlog has been steadily increasing, according to a new report.

Of the 3,21,537 pending appeals, the maximum number was reported in Maharashtra (1,15,524) followed by Karnataka (41,047). Tamil Nadu declined to provide the information.

The Report Card on the Performance of Information Commissions in India, 2022-23 said that the 2019 assessment had found that as of March 31 that year, a total of 2,08,347 appeals/complaints were pending in the 26 Information Commissions from which data was obtained, which climbed to 2,86,325 as of

Case backlog

The time taken to dispose a complaint filed was computed using the average monthly disposal rate and the pendency

Information Commission	Estimated time for disposal
West Bengal	24 years and 1 month
Chhattisgarh	4 years and 4 months
Maharashtra	4 years
Madhya Pradesh	2 years and 11 months
Odisha	2 years and 7 months
Madhya Pradesh	1 year and 11 months
Karnataka	1 year and 11 months
Nagaland	1 year and 7 months
Narva	1 year
Madhya Pradesh	1 year

performance of Information Commissions across the country, and on information accessed under the Right to Information (RTI) Act by the Sarvekshak Sangathan (SSS), a citizens' group working to promote transparency and accountability in governance.

October 12, 2022 marks 18 years of implementation of the RTI Act in India. The report says that 2,30,382 appeals and complaints were registered between July 1, 2012 and June 30, 2022 by the 26 Information Commissions for whom relevant information was available.

During the same time period, 2,14,098 cases were disposed of by 26 Information Commissions for which information could be obtained. Under the RTI law, Information Commissions are the final appellate authority.

June 30, 2022 and then crossed three lakh as of June 30, 2022.

Many deficient

Four Information Commissions - Jharkhand, Telangana, Mizoram and Tripura - are deficient as no new Information Commissioners were appointed upon in-

competent denoting office. Six Information Commissions are currently headed by the Central Information Commission, and the State Information Commissions of Manipur, Chhattisgarh, Maharashtra, Bihar, and Punjab. The report has been compiled based on the per-

- More than three lakh appeals and complaints are pending in 27 State Information Commissions across the country and the backlog has been steadily increasing, according to a new report.
- Out Of the 3,21,537 pending appeals, the maximum number was reported in Maharashtra (1,15,524) followed by Karnataka (41,047).

ABOUT STATE INFORMATION COMMISSION

- State Information Commission is a quasi-judicial body, established by the state government under the provisions of the Right to Information Act (2005) that investigates complaints and makes decisions on appeals related to state government agencies, financial institutions, public sector companies, and so forth.
- Accordingly, all the states have constituted the State Information Commissions through Official Gazette Notifications.

- The State Information Commission consists of a State Chief Information Commissioner and not more than ten State Information Commissioners.
- The Governor appoints the commissioners on the advice of a committee that includes;
 - Chief Minister as Chairperson,
 - The Leader of the Opposition in the Legislative Assembly
 - State Cabinet Minister nominated by the Chief Minister.
- TENURE: The State Chief Information Commissioner and a State Information Commissioner hold office for a term of 5 years or until they attain the age of 65 years, whichever is earlier (RTI amendment 2019).
- REAPPOINTMENT: They are not eligible for reappointment.
- SALARY AND ALLOWANCE: The pay, allowances, and other service conditions of the State Chief Information Commissioner and a State Information Commissioner shall be as stipulated by the Central Government (RTI amendment 2019).

DISTRICT OFFICER UNDER POSH ACT



- The Supreme Court has instructed the Indian government and all states and union territories to promptly appoint district officers under the Protection of Women from Sexual Harassment (POSH) Act, 2013.

DIRECTIONS GIVEN BY THE SUPREME COURT

- Principal Secretaries of the Ministry of Women and Child Development of every state/UT to ensure the appointment of a District Officer in every district within four weeks under Section 5 of the POSH Act.
- Each appointed District Officer would constitute Local Complaints Committees to receive complaints from women employed in small establishments with less than 10 workers or cases in which the assailant is the employer himself (Section 6 of the Act).
- The Chairperson and every Member of the Local Committee shall hold office for a period, not exceeding three years, from the date of their appointment as specified by the District Officer
- Identify a 'nodal person' within the Department to oversee the

implementation of the PoSH Act and coordinate with the Centre.

- Each State/UT Government is to submit a consolidated report of its compliance with the directions to the Centre within eight weeks.

POSH ACT, 2013

- Defined sexual harassment
- Any one or more of the following 'unwelcome acts or behaviour' committed directly or by implication
 - Physical contact and advances
 - Sexually coloured remarks
 - Showing pornography
 - Any other unwelcome physical, verbal or non verbal conduct of a sexual nature.
- Every employer is required to constitute an Internal Complaints Committee (ICC) at each office or branch with 10 or more employees.
- ICC has power similar to those of Civil Court in respect of summoning and examining any person on oath and requiring the discovery and production of documents.
- Complaint must be made within three months from the date of the incident.

VIENNA CONVENTION

- External Affairs Minister said that Canada's inability to provide safety and security to Indian diplomats challenges the most fundamental aspect of Vienna Convention on Diplomatic Relations.

VIENNA CONVENTION ON DIPLOMATIC RELATIONS, 1961

- It was established to define the fundamental principles and terms governing how countries must treat each other's diplomatic representatives.
- It was adopted on 14th April, 1961 by the UN Conference on Diplomatic Intercourse and Immunities held in Vienna, Austria.
- It aims to foster friendly relations and maintain effective communication channels between nations.
- Around 193 countries ratified that convention.
- India ratified it through the Diplomatic Relations (Vienna Convention) Act, 1972.

MAJOR PROVISIONS

- Diplomatic immunity – exemption from certain laws and taxes in the host country where they are posted.
- Article 29 – diplomats are not subject to arrest or detention.
- Article 11.1 of the Convention empowers the host country to establish reasonable and appropriate limits on the size of a foreign diplomatic mission.
- Article 9 - It allows the receiving State to declare the head of the mission or any

member of the diplomatic staff persona non grata or unwelcome without the need for an explanation, and this notification can be made at any time.

ELIMINATION OF CHILD MARRIAGE IN ASSAM



- On October 17, hundreds of villagers across 20 districts of Assam took a pledge to eliminate child marriage.
- This was a significant show of solidarity, motivated by the Government's direction.

BACKGROUND

- Earlier in the month, various government departments encouraged officials and stakeholders to participate in the 'Child Marriage Free India' campaign.
- The campaign aims for a child marriage-free Assam.

NATIONWIDE RESPONSE

- All over the country, from police stations to courtrooms, and community centers, there was a massive turnout of individuals against child marriage.
- The 'Child Marriage Free India' campaign is led by women activists and 160 civil society organizations.

- The goal is to eliminate child marriage in over 300 districts of India by 2030.

CHILD MARRIAGE STATISTICS

- As per UNICEF estimates, if the current rate persists, millions of girls in India will be subjected to child marriages until at least 2050.
- The National Family Health Survey-V (NFHS 2019-21) shows that nationally 23.3% of women between 20-24 were married before 18. In Assam, this figure is higher at 31.8%.

PROHIBITION OF CHILD MARRIAGE ACT 2006:

- The act says that child marriages are illegal but not void.
- They are voidable only when the minor partner asks the court to declare the marriage void.
- The Act prescribes 18 years as the minimum marriageable age for women, while for men it is 21 years
- The Act punishes child marriage with imprisonment which may extend to 2 years or with a fine which may extend to Rs 1 lakh or both.
- The punishment also extends to anyone who performs or conducts any child marriage

ETHICS COMMITTEE

- The Lok Sabha Ethics Committee was in news in relation to Nishikant Dubey's complaint against Mahua Moitra.

THE ETHICS COMMITTEE

- Members are appointed by the Speaker of Lok Sabha for a period of one year.

HISTORY OF ETHICS COMMITTEE

- A Presiding Officers' Conference held in Delhi in 1996 first mooted the idea of ethics panels for the two houses.
- Then Vice President and then RS Chairperson K R Narayanan constituted Ethics Committee on March 4, 1997.
- To oversee the moral and ethical conduct of members and examine cases of misconduct.
- In case of Lok Sabha, a study group of the House Committee of Privileges recommended constitution of Ethics Committee in 1997, but it could not be taken up.
- The Committee of Privileges finally recommended the constitution of Ethics Committee during 13th Lok Sabha.
- The late speaker G M Balayogi constituted an ad hoc Ethics Committee in 2000 which became permanent part of the house only in 2015

PROCEDURE FOR COMPLAINTS

- Any person can complain against a members through another Lok Sabha MP, along with evidence of the alleged misconduct.

- The speaker can refer to the committee any complaint against an MP.
- Thus, it examines the cases of misconduct and recommends appropriate action.
- It is engaged in maintaining discipline and decorum in Parliament

CENSORSHIP REGIME IN INDIA

India expanding censorship regime, creating uneven playing field: study

The Freedom House report says that India resorting to AI-enabled digital repression it finds that the environment for human rights online has deteriorated in 29 countries; the report covers developments between June 2022 and May 2023

The Hindu Bureau
NEW DELHI

According to a new report by Freedom House, a Washington-based non-profit organisation, global Internet freedom has declined for the 13th consecutive year. The environment for human rights online has deteriorated in 29 countries, with only 20 countries registering net gains. The report, titled "Freedom on the Net 2023: The Repressive Power of Artificial Intelligence", has raised a red flag on the increasing use of artificial intelligence by governments for censorship and spread of disinformation.

The report, the 13th edition of an annual study of human rights online, covers developments between June 2022 and May 2023. It evaluates Internet freedom in 70 countries.

As per the report, the sharpest rise in digital repression was witnessed in Iran, where authorities shut down Internet service, blocked WhatsApp and Instagram, and increased surveillance in a bid to quell anti-government protests. China, for the ninth straight year, was ranked as the world's worst environment for Internet freedom, with Myanmar the world's second most repressive for online freedom.

People faced legal repercussions for expressing themselves online in a record 55 countries this year, and the number of countries where authorities carry out widespread arrests and impose multi-year prison terms for online activity has risen sharply over the past decade, from 18 in 2014 to 31 in 2023.

The report also detailed how elections were a trigger for digital repression. Ahead of election periods, "many incumbent leaders criminalised broad categories of speech, blocked access to independent news sites, and imposed other controls over the flow of information to sway balloting in their favour," the report noted.

Digital repression
Detailing AI-enabled digital repression in India, the report said, "Indian Prime Minister Narendra Modi and his Hindu nationalist Bharatiya Janata Party (BJP) have incorporated censorship, including the use of automated systems, into the country's legal framework. The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules require large social media platforms to use AI-based moderation tools for broadly defined types of content – such as speech that could undermine public order, decency, morality, or the country's sovereignty, integrity, and security, or content that officials had previously ordered removed."

Citing the government's order to YouTube and Twitter (now X) "to restrict access within India to a BBC documentary about communal violence during Mr. Modi's tenure as Chief Minister of the State of Gujarat," the report stated, "Because the government ordered the restriction of the documentary, the IT Rules require the two platforms to use automated scanning tools to sweep up any additional posts that share the film." Warning of adverse repercussions for Indian democracy, the report noted, "As the country prepares for general elections in 2024, the government's expanding censorship regime is creating an uneven playing field by silencing criticism of and independent reporting on the ruling party."

The report evaluates countries on five censorship methods – Internet connectivity restrictions, blocks on social media platforms, blocks on websites, blocks on VPNs, and forced removal of content – and India engaged in all of them except one (VPN blocking).

India also figured among the list of countries that "blocked websites hosting political, social, or religious content", deliberately disrupted ICT networks, used pro-government commentators to manipulate online discussions, and conducted "technical attacks against government critics or human rights organisations".

On a range of 1 to 100, where 100 represented highest digital freedom, India scored 50, while Iceland, with 94, has the best Internet freedom.

Internet freedom
The table lists scores on Internet freedom for select countries according to Freedom House's "Freedom on the Net" report. Rankings are on a scale of 1 to 100 with 100 being most free.

Country	Status	Total score
Armenia	Free	94
Australia	Free	93
Germany	Free	91
U.S.	Free	90
Brazil	Partly free	64
Latvia	Partly free	63
India	Partly free	50
Pakistan	Not free	26

Conditions for human rights online deteriorated in 29 countries while 20 countries saw gains.

and indirectly via different legislations and authorities, in different domains like Indian Penal Code, Code of Criminal Procedure, Central Board of Film Certification, Press Council of India, Cinematograph Act, 1952, Cable Television Act etc.

- Example of Censorship- The Govt. of India recently has censored BBC on a documentary about PM Modi's Gujarat riot.

CURRENT CONTEXT

- As per a recent report published by Freedom House, a Washington based nonprofit organisation, "global Internet freedom has declined for the 13th consecutive year. The environment for human rights in online has deteriorated in 29 countries, and India is in top 7 with score of 50 only where 100 represents highest digital freedom." Said in its "Freedom on the Net 2023" report.

WHAT IS CENSORSHIP?

- Censorship is proclaimed to be a tool that is placed to keep a fair check on what comes into the public domain and how this information or data fulfills certain commonly acceptable standards to maintain harmony, peace and social order.
- The term 'censorship' in Indian law is always a debatable issue for laymen, politicians, thinkers, organizations and various other groups.

WHAT ARE THE INDIAN LAWS ON CENSORSHIP?

- Censorship is exercised in India directly

GS - III

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY PROJECT (LIGO) INDIA

NEXT SCIENCE MOVE AFTER CHANDRAYAAN-3 AND ADITYA L1

- LIGO-India, the Laser Interferometer Gravitational-Wave Observatory in India, is indeed a planned advanced gravitational-wave observatory with significant scientific importance. Here are some key points about LIGO-India:
- Location: LIGO-India is planned to be located in the Hingoli district of Maharashtra, India.
- Expected Completion: As of your provided information, it was expected to be completed by 2030.



- Government Approval: LIGO-India had received in-principle approval from the Indian Government.
- Implementing Departments: The observatory will be built by the Department of Atomic Energy and the Department of Science and Technology in India.

SIGNIFICANCE OF LIGO-INDIA:

- LIGO-India is expected to make significant contributions to our

understanding of the universe, especially in the field of astrophysics. Its significance includes:

- Exploring Cosmic Mysteries: LIGO-India, as part of the global LIGO network, will help researchers gain insights into the mysteries of the universe. It will play a crucial role in the study of celestial phenomena, such as the nature of black holes, neutron stars, and other astrophysical events that generate gravitational waves.
- Precise Localization: LIGO-India will improve the ability to precisely locate the source of gravitational waves in the sky. This is essential for further observations and follow-up studies of events detected through gravitational waves.

WORKING OF LIGO:

The Laser Interferometer Gravitational-Wave Observatory (LIGO) detects gravitational waves using a highly sensitive interferometer setup. Here's a simplified overview of how it works:

- **Vacuum Chambers:** LIGO consists of kilometer-long vacuum chambers arranged perpendicularly to each other. These chambers create an ultra-low-pressure environment, free from air molecules that could interfere with the measurements.
- **Reflective Mirrors:** At the ends of these vacuum chambers, highly reflective mirrors are placed. These mirrors are used to bounce laser beams back and forth.
- **Laser Beams:** Laser beams are released simultaneously in both vacuum chambers. They travel back and forth between the mirrors.
- **Gravitational Wave Detection:** Under

normal circumstances, the laser beams in both chambers would return to the starting point simultaneously. However, if a gravitational wave passes through the observatory, it will cause a minuscule change in the distance between the mirrors in one of the arms. This change creates a phase difference between the laser beams, which is detected.

- **Gravitational Waves:** Gravitational waves are ripples in the fabric of space-time caused by the most energetic and violent processes in the universe, such as the collision of black holes, neutron stars, and other cataclysmic events. These waves were predicted by Albert Einstein in his general theory of relativity.

LIGO, including LIGO-India, has already made groundbreaking discoveries in the field of gravitational wave astronomy, providing valuable insights into the cosmos and confirming Einstein's predictions.

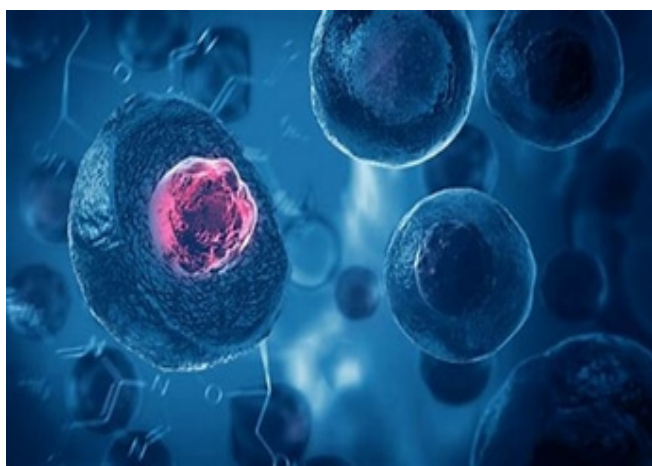
DELHI HIGH COURT PERMITTED STEM CELL THERAPY FOR TREATMENT OF AUTISM SPECTRUM DISORDER (ASD)

STEM CELL THERAPY (SCT):

- **Regenerative Medicine:** SCT is a branch of regenerative medicine that aims to repair damaged cells within the body. It does this by reducing inflammation and modulating the immune system. Regenerative medicine focuses on developing and applying new treatments to heal tissues and organs and restore lost function due to aging, disease, damage, or defects.
- **Process:** SCT typically involves several key steps, including the harvesting process of collecting stem

cells from a donor, conditioning the patient's body to prepare it for the stem cell transplant, the actual transplantation of stem cells, and the recovery period during which the body integrates the transplanted cells.

- **Regulation:** In many countries, including India, stem-cell-derived products are regulated as new drugs. This means that doctors and researchers using SCT need to obtain appropriate permissions and adhere to regulations set by the government to ensure safety and efficacy.



TYPES OF STEM CELLS:

- **Embryonic Stem Cells:** These stem cells are derived from embryos and have the potential to develop into any cell type in the body. They play a critical role in the early stages of development.
- **Adult Stem Cells:** These stem cells are found in various tissues in the body and are responsible for tissue maintenance and repair. They can differentiate into specific cell types related to their tissue of origin.
- **Induced Pluripotent Stem Cells (iPS Cells):** These are stem cells that scientists can create in the laboratory by reprogramming adult cells. iPS cells have characteristics similar to embryonic stem cells and can differentiate into various cell types.

ABOUT AUTISM:

- **Autism Spectrum Disorder (ASD):** Autism is a neurological and developmental disorder that falls under the broader category of Autism Spectrum Disorder. It affects how individuals interact with others, communicate, learn, and behave. ASD is characterized by a range of symptoms and severity, which is why it's referred to as a spectrum disorder.
- **Prevalence:** Autism can be diagnosed in individuals of all ages, not just children. The prevalence of autism has been increasing, and it affects people worldwide.
- **Symptoms:** Symptoms of autism can include social challenges, communication difficulties, repetitive behaviors, and a range of strengths and differences in thinking and learning.
- **Management and Intervention:** Early diagnosis and intervention can significantly improve outcomes for individuals with autism. Various therapies and interventions are used to support individuals with autism in developing their social and communication skills.

RESERVE BANK OF INDIA (TREATMENT OF WILFUL DEFAULTERS AND LARGE DEFAULTERS) DIRECTIONS, 2023 RELEASED

With these directions, RBI has expanded scope for regulated entities that can classify borrowers as wilful defaulters, broadened definition of wilful default, and re-named identification process.

KEY HIGHLIGHTS OF DIRECTIONS –

APPLICABILITY

All regulated entities, including banks, NBFCs, Co-operative Banks, Regional Rural Banks, Local Area Banks, and All India Financial Institution AIFI including NABARD, SIDBI, EXIM Bank, NHB and NaBFID.

DEFINITION

- A wilful defaulter is a borrower or a guarantor who has defaulted without being constrained to do and the outstanding amount is Rs lakh and above.
- A large defaulter is one whose amount in default is Rs crore and above.

REVIEW AND FINALISATION ON WILFUL DEFAULT-

- Within six months of an account being classified as a non-performing asset NPA.
- Earlier, there was no specific timeline.

IDENTIFICATION PROCESS-

- **Identification Committee:** Wilful defaulter classification after examining evidence from an identification committee, which will then issue a show-cause notice.
- **Review Committee:** Considers the

proposal of the Identification Committee for classification as a wilful defaulter.

OTHER PROVISIONS

- No additional credit facility can be granted to a wilful defaulter and it remains in effect for up to 1 year after removal from List of Wilful Defaulters.
- Lender will be able to proceed against guarantor even without exhausting the remedies against principal debtor.

RESERVE BANK OF INDIA (RBI) INTRODUCES BASEL-III CAPITAL FRAMEWORK FOR ALL INDIA FINANCIAL INSTITUTIONS (AIFIS)

- Exercising power under Section 45L of the RBI Act 1934 RBI has mandated AIFIs to maintain a capital adequacy ratio (CAR) of 9% by April 2024 (July 2024 for NHB).
- It was done as AIFIs are being seen as key institutions to promote the flow of credit to economic sectors they cater to.

Mandate will be applicable to AIFI's named:

- EXIM Bank (Export-Import Bank of India),
- NABARD (National Bank for Agriculture and Rural Development),
- NaBFID (National Bank for Financing Infrastructure and Development),
- NHB (National Housing Bank), SIDBI (Small Industries Development Bank of India)
- SIDBI (Small Industries Development Bank of India)

ABOUT BASEL-III NORMS

- Basel-III norms were adopted by financial regulators to improve the banking sector's ability to absorb shocks arising from financial and economic stress.
- It was developed by Basel Committee on Banking Supervision in the aftermath of the financial crisis of 2007-08.
- It mandates banks to maintain a CAR or Capital to Risk-weighted Assets (CRAR) at least 8%.
- CRAR is a ratio that compares the value of a bank's capital (or net worth) against the value of its various assets weighted according to risk.
- RBI mandates banks to maintain a minimum CAR of 9%.

REMISSION

- Supreme Court favoured remission to convicts who have served a long period of incarceration if they show reformation.
- Remission refers to the reduction in the duration of sentence without changing the nature of punishment.
- It is mostly granted on the basis of good conduct, reformation, health grounds etc.
- Article 72 and 161 of the Constitution allows the President and the Governor respectively to pardon, suspend, remit, or commute a sentence.
- Criminal Procedure Code (CrPC) from Section 432 to 435 also lays the procedure for remission.

PRADHANMANTRI VISH-WAKARMA YOJANA (PMVY)



The 13,000 crore Pradhan Mantri Vishwakarma Yojana (PMVY) has been launched with an aim to equip crafts people, particularly from the Other Backward Classes (OBC) community, with the technology to augment their skills for the modern market.

This scheme, named after the divine architect and craftsman Vishwakarma, seeks to preserve and enhance the guru-shishya parampara (teacher-pupil tradition) of passing down skills within families engaged in various artisanal trades.



THE SCHEME

- The Vishwakarma scheme aims to enhance the accessibility and quality of products and services offered by traditional artisans and craftsmen.
- It offers collateral-free enterprise development loans of 1 lakh (first tranche to be repaid in 18 months) and 2 lakh (second tranche to be repaid in 30 months).
- A concessional rate of interest of 5% will be charged from the beneficiary, with interest subvention cap of 8% to be paid by the Ministry of Micro Small and Medium Enterprises.
- Under the skills development component, five-day training workshop is provided for beneficiaries with a daily stipend of Rs. 500.
- It will also provide them with a voucher of Rs. 15,000 to buy toolkits necessary to their craft.

PROJECT CHEETAH



The first batch of eight cheetahs from Namibia which arrived on September 17, 2022, officially launching Project Cheetah, India's cheetah introduction programme completes one year.



WHY HAVE AFRICAN CHEETAHS BEEN INTRODUCED IN INDIA?

- The goal of the introduction of African cheetahs is to establish viable cheetah metapopulation in India.
- It will allow the cheetah to perform its functional role as a top predator and provides space for the expansion of the cheetah within its historical range thereby contributing to its global conservation efforts.



STATUS OF THE PROJECT

- In total, 20 adult African cheetahs have been imported so far. The first batch of eight cheetahs arrived on September 17, 2022 and another batch of 12 cheetahs

from South Africa arrived on February 18, 2023.

- On the first anniversary of the project, all the surviving 14 adult cheetahs and one cub are in captivity and there is talk of them being radio-collared again and released once the winter sets in.

IMPACT OF THE PROJECT ON THE CONSERVATION OF OTHER ENDANGERED SPECIES

- The project has led to diversion of financial resources from much needed conservation projects like the ones for the Great Indian Bustard and the translocation of Asiatic lions.
- Project Cheetah has also been called upon as a means to save grasslands and other open natural ecosystems.

However, given the challenges that the cheetahs have faced in surviving even in captivity and the lack of sufficient suitable habitats for them, the idea of using African cheetahs to conserve grasslands and grassland dependent species needs to be pondered upon.

IMPORTANCE OF PROTECTING ECO-SENSITIVE ZONE



WHAT IS ECO-SENSITIVE ZONE?

- Eco-sensitive areas within 10 km of protected areas, national parks and wildlife sanctuaries are referred to as eco-sensitive zones (ESZ) or ecologically fragile regions.
- The term ESZ is used to describe areas of land that require special protection from human activity.
- The main objective is to regulate specific activities around these zones to minimize the negative impacts on the fragile ecosystem of the region.

LEGAL & REGULATORY FRAMEWORK

- **Environment (Protection) Act, 1986:** The Central Government can prohibit and regulate any activity in the ESZ areas, under Section 3(2)(v) of this act.
- **Wildlife Protection Act, 1972:** Provides for the protection of wild animals, birds, plants, and helps ensure the ecological and environmental security of India.

CRITERIA FOR DECLARING ESZ

- **Species-based:** Presence of endangered species, endemic species, or any species of ecological value.
- **Ecosystem-based:** Presence of sacred groves, frontier forests, and other valuable ecosystems.
- **Geomorphological features:** Origins of river, unique geological formations, etc.

ACTIVITIES IN ESZ

There are three categories of activities in ESZ:

- **Prohibited Activities:** Such as commercial mining, setting up of saw mills, polluting industries, major

hydroelectric projects, etc.

- **Regulated Activities:** Like felling of trees, establishment of hotels and resorts, driveways, and the like that can be carried out with certain restrictions.
- **Permitted Activities:** Those that are allowed and don't need any specific clearance or permission.

IMPORTANCE OF ESZ

- Eco-sensitive zones serve as 'shock absorbers' around national parks, animal refuges and protected areas.
- An ESZ is an area of land that is home to some of the world's most important and sensitive ecosystems and most diverse and unique wildlife, as well as provides a vital buffer for humans against the impacts of climate change.
- Conservation of biodiversity by protecting the habitats of various species.
- Protects tribal or indigenous communities as many ESZs are home to tribal communities, and declaring these areas as ESZ ensures their protection and sustenance.
- Sustainable development which ensures that the development in these zones is in harmony with nature.

CHALLENGES

- **Land-use conflicts:** Since many ESZs are rich in minerals, they face threats from mining and other extractive industries.
- **Man-animal conflicts:** Due to increased human activities in or around ESZs, the number of man-animal conflicts has increased.
- **Deforestation:** Illegal logging and tree felling remain major concerns.

GM CROP



- The adoption of science based technologies for crop improvement such as genetic engineering for developing genetically modified (GM) crops as a supplement to conventional breeding methods has become an absolute necessity to address the complex challenge of achieving global food and nutritional security under the fast changing climate.
- According to the Global Food Security and Nutrition report, 2019, it is difficult to achieve the 'Zero Hunger' target by 2030.

ABOUT GM CROP

- GM foods are derived from plants whose genes are artificially modified, usually by inserting genetic material from another organism, in order to give it a new property, such as increased yield, tolerance to a herbicide, resistance to disease or drought, or to improve its nutritional value.
- Probably the best known variety of GM rice is golden rice which involves the insertion of genes from a plant -- both daffodils and maize have been used --

and a soil bacterium to create a grain that is enriched with Vitamin A.



- BT Cotton was commercialised as the first GM Crop in India more than 20 years ago and has been viewed globally as a great success story in terms of economic advantage to farmers and to the nation.



SIGNIFICANCE

- It will help boost the vibrant genetic engineering research sector in the country and enable the generation of new crop varieties with improved traits.
- It can ensure higher yield and make crops resistant to disease and climate change.
- It can promote self reliance and sustainability in agriculture.
- Global economic gains contributed by GM crops (1996-2018) have amounted to \$224.9 billion in economic benefits

to more than 16 million farmers, 95% of whom are from developing countries.

CONCERNS / CHALLENGES

- Major opposition to GM cross can be stated as a trust deficit and sense of precaution. Lack of transparency in the regulatory process and conflict of interest are the major reasons.
- In India, entities striving to bring GM crops to market are also responsible for conducting safety assessments via field trials, which raises concerns about the impartiality of the data.
- The pesticide industry's efforts to influence policymakers and regulators have obstructed reforms globally. Their business model aims only at making profit.

PRADHAN MANTRI MATSYA SAMPADA YOJANA (PMMSY)

- In 2020, Prime Minister Narendra Modi understood the immense potential of the Blue Economy and initiated systemic development of the sector, including carving out a Fisheries Ministry.
- A significant sum of 20,050 crore was allocated for the Pradhan Mantri Matsya Sampada Yojana (PMMSY) in 2020, committing the biggest-ever investment in the history of Indian fisheries.



SIGNIFICANCE OF PMMSY AS A SCHEME

- Over the years, PMMSY has addressed critical gaps in the fisheries value chain from fish production, productivity and quality to technology, postharvest infrastructure and marketing.
- As it completes three years, the PMMSY has successfully pulled inland fisheries from traditional waters and infused technology, inspiring many talented and enterprising youth to venture into fisheries.
- The PMMSY has empowered fisherwomen to explore remunerative options and alternative livelihoods, such as ornamental fisheries, pearl culture, and seaweed cultivation.
- A recently launched 127crore Seaweed Park in Tamil Nadu's Ramanathapuram district is a truly pioneering step by the Modi government.



- India is now counted among the world's top three countries in fish and aquaculture production and is also the biggest shrimp exporter in the world.

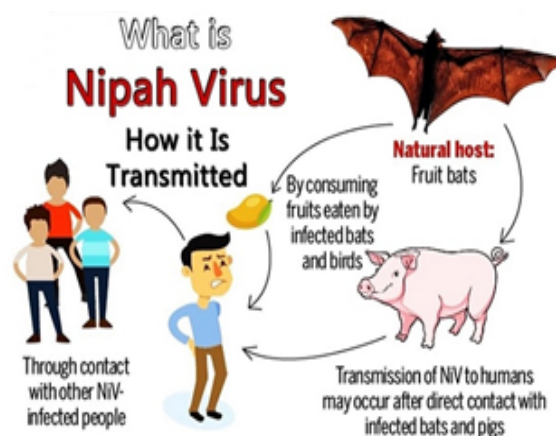
NIPAH VIRUS



- The resurgence of Nipah infection in Kerala has sparked worries about this deadly viral illness.
- Nipah, although not as easily transmissible as COVID-19, carries a considerably higher fatality rate, ranging from 40% to 70%.

WHAT IS A NIPAH VIRUS INFECTION?

- Nipah is a zoonotic disease which transmits to humans through infected animals or contaminated food.
- Direct person-to-person transmission through close contact with an infected individual is also possible.
- Symptoms include fever, headache, cough, sore throat, difficulty in breathing, and vomiting.
- In severe cases, Nipah infection can also progress to disorientation, drowsiness, seizures, and encephalitis (brain swelling), ultimately leading to coma and death.



TRANSMISSION OF NIPAH VIRUS

- **HISTORICAL EPIDEMICS:** The Nipah virus made its initial appearance in Malaysia (1998) and Singapore (1999), earning its name from a Malaysian village where it was first identified.
- The primary means of transmission from animals to humans is through the consumption of tainted food.



ANIMAL HOST RESERVOIR:

- Fruit bats, often referred to as flying foxes, serve as the recognized carriers of the virus.
- They pass it on to other animals such as pigs, dogs, cats, goats, horses, and sheep.
- Human infection generally occurs through direct contact with these animals or the consumption of food tainted by their saliva or urine.

NIPAH VIRUS SPREAD AND MORTALITY

- **GRADUAL SPREAD:** In contrast to the swift transmission of SARS-CoV-2, the Nipah virus spreads at a slower pace.
- **ELEVATED MORTALITY:** During outbreaks, Nipah has exhibited mortality rates reaching as high as 68-75%.
- **CONFINED OUTBREAKS:** It is noteworthy that Nipah outbreaks have consistently remained localized and were relatively swiftly contained. The virus's limited infectiousness and a low rate of human-to-human transmission contribute to this containment.
- **RESTRICTIVE IMPACT OF HIGH FATALITY RATES:** The virus's elevated fatality rates also serve as a deterrent to its transmission.



GLOBAL STOCKTAKE REPORT



- Ahead of the just concluded G-20 summit, the United Nations climate secretariat made public a 'synthesis report' on the results of three meetings held so far to discuss progress achieved by countries in achieving the goals of the Paris Agreement of 2015.
- The synthesis report is linked to a broader initiative known as the "global stocktake," which is scheduled to occur every five years.
- In 2015, when countries committed in Paris to keep global temperatures from rising beyond 2 degrees Celsius by the end of the century and "as far as possible" below 1.5 degrees Celsius, they also agreed to periodically review, or take stock of efforts, made by individual countries in containing greenhouse gases and transitioning their fossil-fuel dependent energy systems to renewable sources.
- While countries have laid out their Nationally Determined Contributions (NDC), they are expected to increase their ambitions every five years.
- While the latest NDC were submitted in 2020, a stocktake also aims to push

countries to set higher targets before the next NDCs are publicised in 2025.



- The report lays out 17 key findings that overall suggests that the world is not on track to achieve Paris Agreement targets, though there was still a “rapidly narrowing” window for countries to get their act together.

KEY FINDINGS

- Governments need transition of their economies away from fossil fuel businesses and that states and communities must strengthen efforts, ensuring that the economic transition be equitable and inclusive.
- Renewable energy has to be scaled up and all ‘unabated fossil fuels’ (for example, coal plants without carbon capture and storage mechanisms) are to be rapidly eliminated.



- Deforestation and land degradation have to be halted and reversed.
- Agricultural practices critical to reducing emissions and conserving and enhancing carbon sinks have to be encouraged.
- Support for adaptation and funding arrangements for averting, minimising and addressing loss and damage from the impact of climate change.
- Access to climate finance in developing countries need to be enhanced.

WHAT IMPACT DID THE GLOBAL STOCKTAKE REPORT HAVE?

- While the report is expected to set the template for the forthcoming conference template for the forthcoming conference, it did resonate in the G-20 Leaders Declaration, said to be among the most significant outcomes of the summit.
- This document for the first time formally recognises the massive jump in finance necessary for the world to transition to a renewable energy to reach net zero by 2050.

THE COMPLEX PATH TO BIOFUEL SUSTAINABILITY

WHAT IS BIOFUEL?

- Any hydrocarbon fuel that is produced from an organic matter in a short period of time.
- The International Energy Agency defines biofuels as 'liquid fuels derived from biomass and used as an alternative to fossil fuel based liquid transportation fuels such as gasoline, diesel and aviation fuels.
- It may be solid, liquid or gaseous in nature.

DIFFERENT CATEGORIES OF BIOFUELS

FIRST GENERATION

- Made from food sources such as sugar, starch, vegetable oil or animal fats using convention technology.
- Example-Bioalcohol, Biodiesel, Vegetable oil, Bioethers, Biogas.

SECOND GENERATION

- Produced from non food crops or portions of food crops that are not edible and considered as wastes.
- Example-Stems, Husks, Wood chips etc.
- Thermochemical reactions and biochemical conversion processes are used for producing such fuels.

THIRD GENERATION

- Produced from micro organisms like algae. Example-Butanol.

FOURTH GENERATION

- It use genetically modified crops to enhance biofuel production.

THE CHALLENGES IN INDIA

- In India, biofuel is synonymous with first-generation (1G) ethanol, which is primarily sourced from food crops.
- The policy target in India of achieving 20% ethanol blending with petrol (E20) by 2025- 26 is expected to be met almost entirely by 1G ethanol made from sugar cane and food-grains.
- Second-generation(2G) ethanol, which is made from crop wastes and residues, is unlikely to contribute much to achieving this target due to several challenges related to feedstock supply chain and scaling up.
- Diverting the surplus produce towards energy or specifically growing a crop for energy may not be a sustainable strategy.
- Due to already stagnated crop yields and alarming global warming, the same area under cultivation will produce less.
- The agriculture sector is one of the hardest to abate in terms of direct greenhouse gas (GHG) emissions. So, increasing GHG emissions from this sector for motor fuel production in order to decrease GHG emissions from the transport sector is an unnecessary balancing loop that would achieve little net benefit.
- In India, the ethanol blending policy has been a good strategy to deal with the surplus sugar production.
- 'Sustainable biofuels' are produced from crop residues and other wastes, with low water and GHG footprint.

INDIA'S SUPPLY CHAIN OPPORTUNITY



- The announcement at the G20 Leaders' Summit on the landmark India-Middle East-Europe Economic Corridor (IMEC) has the potential to make India an Asian hub in global supply chains.
- This is significant amid the efforts to cut dependence on China-centric global supply chains.

WHAT ARE SUPPLY CHAINS?

- A supply chain includes every step (beginning with the producers of the raw materials) that is involved in getting a finished product or service to the customer.
- It refers to the geographical location of stages of production (design, production, assembly, marketing, service activities) in a cost-effective manner.

WHY IS GLOBAL SUPPLY CHAINS MOVING FROM CHINA?

- Today, China is a major actor in global value chains, accounting for nearly 20% of global manufacturing trade and an even greater share of many intermediate global value chain inputs that are essential for production.

However, even before the Covid-19 pandemic, Western firms had begun to reduce their reliance on China and its popularity as a sourcing market among Western buyers was diminishing.

- While China once offered some of the world's lowest labor costs, wages have been steadily rising, diminishing its cost advantage for manufacturing.
- Also, the country's trade war with the US is forcing multinational companies to rethink their global sourcing strategies.

WHY IS INDIA BEING CONSIDERED AN ATTRACTIVE SUPPLY CHAIN HUB?

- Southeast Asia has beckoned foreign companies with cheap wages, fiscal incentives and improved logistics.
- India boasts a vast and young workforce that can support various industries, from manufacturing to IT services.
- Vietnam and Thailand are big winners in supply-chain shifting. But over time, India can become a complementary Asian manufacturing hub to China by reaping gains from foreign technology transfers and creating value-adding jobs.
- This is seen in the ramped-up manufacturing of iPhones in the country, early technology transfer in the product cycle of the technologically advanced Mercedes Benz EQS to India, and Foxconn Technology Group developing a chip-making fabrication plant in Gujarat.
- India's attractiveness to foreign investors is also linked to geopolitical and economic factors.
- India's strengths in IT, software, and services can be leveraged for advanced supply chain technologies and solutions.

- As companies seek to diversify supply chains post-pandemic, India presents a viable alternative.
- India's strategic pacts with global partners provide preferential trade benefits.

SO, WHAT MUST INDIA DO GOING FORWARD?

- India can learn from China's experience.
- Promotion of export-oriented foreign direct investment (FDI).
- Local companies need smart business strategies to join global supply chains.
- Business strategies like meagers, acquisitions and alliances with multinationals and large local businesses are rational approach.

AYUSHMAN BHAV HEALTH SCHEME

The Aayushman Bhav Scheme initiated by the Health Ministry aimed at providing a comprehensive nationwide healthcare initiative to saturate coverage of healthcare services, reaching every village and town.



- The Ministry will also launch Ayushman Apke Dwar 3.0 Programme, which will allow eligible beneficiaries enrolled under the PMJAY scheme to download their health card on their own.

ABOUT AYUSHMAN BHAV CAMPAIGN

- A comprehensive nationwide healthcare initiative ensures saturation coverage of healthcare schemes, reaching every village and town.
- By combining awareness campaigns, medical camps, and inclusive strategies, the initiative seeks to bridge the gap and extend healthcare benefits to the last mile.
- Ayushman Bhav aims to provide Ayushman cards, generate ABHA IDs, and raise awareness about vital health schemes and disease conditions, such as non-communicable diseases, tuberculosis, and sickle cell disease.
- 'Seva Pakhwada' from September 17th to October 2nd, 2023 to ensure that every individual receives essential health services.

AYUSHMAN BHAV PROGRAM ACTIVITIES

- Ayushman Apke Dwar 3.0 - aims to ensure full saturation of health schemes, leaving no eligible beneficiary deprived of essential benefits.
- Ayushman Sabha: At the village level will be spearheaded by the village health, sanitation, and nutrition committee.
- This campaign will actively work towards extending the benefits of central and state government health schemes to their intended recipients.
- It will focus on generating awareness about the significance of Pradhan Mantri Jan Arogya Yojna (PMJAY) health insurance scheme cards and Ayushman Bharat Health Accounts (ABHA) numbers.

RETAIL INFLATION EASES, FOOD PRICES STILL BITE

- India's retail inflation eased slightly to 6.83% in August, from the 15 month high of 7.44% in July.
- But the rise in food prices remained elevated at around 10% and rural consumers continued to face over 7% inflation.

WHAT IS RETAIL INFLATION?

Retail inflation refers to the increase in the prices of goods and services that households buy for day-to-day living.



- It's typically measured by the Consumer Price Index (CPI).
- When we say retail inflation "eases," it means that the rate at which prices are rising has slowed down, which is generally considered good for consumers and the economy.

REASONS FOR HIGH FOOD PRICES DESPITE EASING RETAIL INFLATION

Several factors can contribute to a situation where food prices remain high even if overall retail inflation is slowing.

- **Supply Chain Disruptions:** Events like natural disasters, pandemics, or trade restrictions can disrupt the supply of food products, leading to price spikes.
- **Demand-Supply Mismatch:** If there's a sudden increase in demand or a fall in supply for specific food products, prices can increase.
- **Global Factors:** Food prices can be influenced by global market conditions. For instance, if a major grain-producing country faces a crop failure, it can lead to increased prices worldwide.
- **Cost Push:** An increase in the cost of inputs (like fuel, labor, or transportation) can push food prices higher.
- **Speculation:** In some cases, traders or middlemen might hoard essential commodities in anticipation of future price rises, leading to short-term price spikes.

INDIA'S FALLING COTTON PRODUCTION



ABOUT COTTON'S PRODUCTION

- Cotton has a roughly two-thirds share in India's total textile fibre consumption.
- Along with that, cottonseed is the country's third largest domestically

produced vegetable oil (after mustard and soyabean) and it's second biggest feed cake/meal after soyabean.

- Between 2000-2001 and 2013-14, India's cotton production in terms of lint almost trebled from 140 lakh to 398 lakh bales of 170 kg each.
- This was significantly enabled by Bt technology.
- However, India's cotton production has been declining in recent years due to a combination of factors, including pest infestations, drought, and declining demand for cotton.

SOME REASONS FOR INDIA'S FALLING COTTON PRODUCTION

- **Pest infestations:** Cotton crops in India are prone to pest infestations, which can reduce the crop yield and quality.
- **Drought:** Drought can also affect cotton production, as cotton requires a lot of water to grow.
- **Declining demand for cotton:** Demand for cotton has been declining due to price volatility and the rise of synthetic alternatives. As a result, India's share of the global cotton market has fallen from 17% in 2013 to 13% in 2020.



- **Lower yields:** Cotton production and yields have plummeted, and the country is witnessing a sharp decline in cotton exports, reaching a 19-year low.

INDIA HAS TAKEN SEVERAL MEASURES TO ADDRESS THE DECLINE IN COTTON PRODUCTION

- **Promoting research and development:** The Indian government has been promoting research and development in cotton production to develop new varieties of cotton that are resistant to pests and drought.
- **Providing financial assistance:** The government has been providing financial assistance to farmers to encourage them to adopt new technologies and practices to improve cotton production.
- **Encouraging crop diversification:** The government has been encouraging farmers to diversify their crops to reduce their dependence on cotton and mitigate the risks associated with cotton production.
- **Improving irrigation facilities:** The government has been improving irrigation facilities to ensure that cotton crops have access to sufficient water.

INCREMENTAL CASH RESERVE RATIO (I-CRR)

The Reserve Bank of India (RBI) has decided to discontinue the Incremental Cash Reserve Ratio (I-CRR) in a phased manner.

CASH RESERVE RATIO (CRR)

- A percentage of Net Demand and Time Liabilities, banks must keep with the central bank (RBI) to control liquidity.
- RBI doesn't pay interest on this deposit, except in extraordinary circumstances like 1999's Banking slowdown.

- RBI can fix any amount of CRR, legally there is no minimum floor or maximum ceiling.
- All Scheduled Commercial Banks (SCB) must keep CRR.
- However, RBI may prescribe separate % norms/slabs for Regional Rural Banks (RRBs) and Cooperative Banks.

WHAT IS INCREMENTAL CASH RESERVE RATIO (I-CRR)?

- Additional requirement imposed by RBI on banks' liabilities to manage excess liquidity and stabilize the economy.
- A temporary 10% Incremental Cash Reserve Ratio (I-CRR) is imposed on banks on August, 2023 to absorb surplus liquidity generated by various factors, including the return of Rs. 2000 notes to the banking system.

HEAT INDEX



ABOUT HEAT INDEX

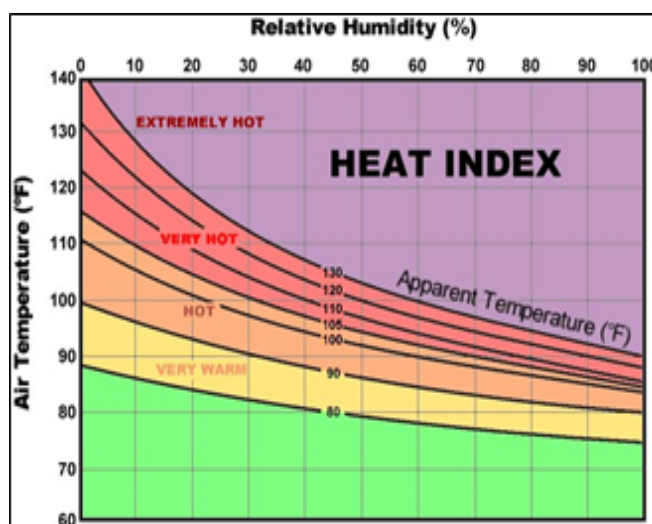
- Measure of how the temperature feels to humans.
- Relative humidity is an important factor that determines heat index, along with air temperature.
- India's first-ever heat Index was

introduced by the Indian Meteorological Department in 2016.

- The heat index provides the citizens accurate and updated information on the heat conditions specific to their areas.

HOW IS THE HEAT INDEX CALCULATED?

- It is calculated based on actual temperatures and relative humidity levels.
- The heat index is calculated based on the result obtained from the heat index graph when relative humidity is compared against actual temperatures.



- It helps to understand the impact of humidity on high temperatures and how it contributes to human discomfort during hot weather.
- High heat index values indicate a greater risk of heat related stress and health issues.
- It serves as a warning for potential heat related illness and dangers.

USEFUL TOOL FOR PUBLIC HEALTH

- Individuals and communities can take proactive steps to protect public health during heat waves.
- It assists in making informed decisions

and formulating heat action plans to ensure the well-being of the population.

JAPAN'S MOON MISSION



Japan launched a lunar exploration spacecraft on 7th September, hoping to become the world's fifth country to land on the moon early next year.

ABOUT THE MISSION

- The rocket took off from Tanegashima Space Station in Southern Japan as planned and successfully released the Smart Lander for Investigating Moon (SLIM) and X-ray Imaging and Spectroscopy Mission (XRISM).
- Dubbed the “moon sniper”, Japan aims to land SLIM within 100 metres of its target site on the lunar surface.
- The mission aims to build new science through the use of ultra-high-resolution X-ray spectroscopy.
- It will study high-temperature gases in space.
- As for its lunar mission, if it happens to be successful, Japan will join the ranks of just five countries that have achieved a soft

landing on the Moon.

- India recently became only the fourth country to accomplish soft landing on the Moon and the first to do so in the south pole region.

CRYPTOCURRENCY AND IT'S THREATS



Crypto currencies (crypto), drug mafias, tax havens and cyber intrusions pose major threats to the global financial ecosystem and a global collaborative effort is hence needed to counter such challenges as stated by our Finance Minister.

FM flags threats to financial system from crypto, tax havens

India's G20 Presidency calls for a framework for handling issues relating to crypto-assets; FM also urges fintech industry to guard against threats

The Hindu Bureau
MUMBAI

Union Finance & Corporate Affairs Minister Nirmala Sitharaman on Tuesday said cryptocurrencies (crypto), drug mafias, tax havens and cyber intrusions posed major threats to the global financial ecosystem and a global collaborative effort was needed to counter such challenges.

Bracing for risks

Finance Minister Nirmala Sitharaman calls for a collaborative effort across the globe to counter rising financial threats

- The FM cites drug mafias, tax havens, round tripping and tax evasion as serious threats to global finance
- Ms. Sitharaman urges the fintech industry to invest heavily to protect user data and financial transactions
- Fintechs in India are enhancing financial inclusion and influencing India's financial ecosystem, the minister adds



BENEFITS OF CRYPTO CURRENCIES

- Faster and cheaper transactions compared to traditional financial systems by eliminating the need for intermediaries such as banks.

- Crypto currencies are decentralized as they are not controlled by any central authority making them immune to government interference.
- Some crypto currencies have a limited supply, which protects them from inflation as their supply is determined by mathematical algorithms, not by Governments or Central banks.
- Crypto currencies use advanced encryption techniques to secure transactions and protect users' privacy.
- Potential for higher returns as they are highly volatile.
- Crypto currencies can provide access to financial services for people who are unable or unwilling to use traditional banking services.
- Crypto currencies use blockchain technology, which provides a transparent and tamper-proof record of all transactions.

DISADVANTAGES OF CRYPTOCURRENCIES

- Price volatility
- High energy consumption for mining activities
- Use in criminal activities

SAMARTH SCHEME

A certificate distribution ceremony was organised by AVA Creations Social Impact Foundation (AVACSIF) in collaboration with the Ministry of textiles, GOI.



ABOUT THE SCHEME

- It is a flagship skill development scheme.
- It was launched to meet the demand of skilled workers in the textile sector.

OBJECTIVE

- To provide demand driven, placement oriented skilling programme to incentivize the efforts of the industry in creating jobs in the organized textile and related sector.
- Promote skilling and skill upgradation in the traditional sectors of handloom, handicrafts, sericulture and jute.
- Promote sustainable livelihood either by wage or self employment to all sections of the society.

FOOD AND CLIMATE CHANGE

- Global climate is warming up at an unprecedented rate.
- It will continue to rise as a result of greenhouse gas emission such as methane, carbon dioxide etc.



DOES OUR FOOD CONTRIBUTE TO CLIMATE CHANGE?

- The journal Nature in a report published in March, 2023, highlighted that global food consumption alone could add nearly 1 degree Celsius to warming by the year 2100.
- Studies have revealed that the Global Food System – growing, processing, transporting, distributing, consumption and disposal of food – makes up a third of greenhouse gas emission every year.
- Research shows that production of paper and pulp for food packaging alone generates an average of 59.9 million tonnes of carbon dioxide per year.
- Carbon dioxide is emitted throughout the

food supply chain from sources such as energy use from cultivation machinery and product transportation.

WHICH FOOD CAUSE THE MOST GREENHOUSE GAS EMISSIONS?

- Animal based food such as red meat, dairy and farmed shrimps.

WHAT ARE THE REASONS?

- Meat production requires extensive grassland which are created by cutting down of trees releasing carbon dioxide stored in the forest.
- Cows and sheep emit methane as they digest grass and plants.
- Cattle's waste on pastures and chemical fertilisers used on crops for cattle feed emit nitrous oxide.
- Shrimp farms often occupy coastal lands and when mangroves are cut down to create shrimp farms, huge amounts of carbon are released into the atmosphere.

FOOD WASTE AND CLIMATE CHANGE

- Around 1/3rd of all food produced in the world goes waste – equal to 1.3 billion tonnes of fruits, vegetables, meat, dairy, seafood and grains.
- When the wasted food goes to landfill and rots, it produces methane.
- WWF Report about 6- 8% of all human caused greenhouse gas emissions could be reduced, if we stop wasting food.

REFORMING THE FOOD SYSTEM

- In 2021, some world leaders agreed to decrease agriculture sector emissions.
- 111 countries making up 45% of global methane emissions, signed an agreement

to reduce methane emissions by around 30% by 2030.

STEPS BY DIFFERENT COUNTRIES

- National Food Security Act by Indian government aims to produce diverse range of foodgrains – millets, sorghum and maize, which are nutritious and highly resistant to climate induced stress.
- Climate Smart Agriculture solutions in China and Vietnam have been able to reduce methane emission in rice cultivation.
- Climate focused food system bills passed by US. Food Donation Improvement Act have been passed to reduce food waste and insecurity.
- AI technique is being tried to reduce overproduction and waste of food.

WAY FORWARD

- Reforming the food system will require new corporate practices and new laws at national and international levels.
- Need to change individual behaviour – quit wasting food and eat less meat.

UNMANNED AERIAL VEHICLES



- The Chief of Defence Staff General Anil Chauhan recently ordered two studies to be conducted on major military platforms used by the three Services.
- According to defence sources, these platforms are unmanned aerial vehicles (UAV) and armoured helicopters. The study on UAVs has since been completed with a recommendation to acquire 31 MQ9B high altitude long endurance (HALE) UAVs and 155 medium altitude long endurance (MALE) UAVs from USA.

SOME OF THE ADVANTAGES OF USING UAV IN DEFENCE SECTOR

- **Better Surveillance, and Target Acquisition (RSTA):** Drones provide real-time information on targets' positions, terrain, and enemy movements to commanders on the ground.

- **Reduced Cost:** Drones are cheaper than conventional aircraft in terms of both price and maintenance.
- **Crew safety:** Because drones are unmanned, they also reduce the risk of pilots being injured mid-flight.
- **Faster deployment:** Compared to conventional aircraft, drones are faster and easier to deploy. They are easier to operate and don't need training as extensive as most aircraft. Many drones don't need a runway, and other types can easily fit in a backpack.
- **Increased flexibility:** While the military-industrial complex has developed technology that prioritizes this need, drones are the best example. On top of this, drones can even be fully automated.
- **Improved Situational Awareness:** Drones can provide military commanders with real-time video and other intelligence data, giving them a better understanding of the battlefield and enemy movements.
- The portal provides activity-based support material on Mission Chandrayaan-3, which is India's third lunar mission.
- Also, there will be inspiring stories in the form of graphic novels depicting events that shaped ISRO's journey up to Chandrayaan 3.
- The aim of the portal is to develop scientific temper among school students and promote interest in space science.
- Addressing the children, Dr. Somnath, Chairman of ISRO emphasised, India completed the Chandrayaan 3 Mission by using indigenous technologies.
- He requested the students to watch the launch of Gaganyaan on 21st October 2023 at 0800 hrs and inspired young minds to become researchers by inculcating critical thinking.
- Promoting interdisciplinary-multidisciplinary learning and problem-solving is the need of the hour in India to propel the nation to greater heights by nurturing a culture of scientific thinking and achieving the vision of NEP 2020.

APNA CHANDRAYAAN



- Apna Chandrayaan is a web portal launched by the Union Minister for Education and Skill Development & Entrepreneurship, Shri Dharmendra Pradhan, on October 17, 2023.
- These activities will equip students with the versatile skills required to tackle the complex challenges of the 21st century, ultimately contributing to India's progress and innovation on the global stage as Vishwa Guru infused with the core value of "Vasudhaiva Kutumbakam".
- In an another event, signalling a road map for India's future space ambitions, Prime Minister Narendra Modi has "directed" the Indian Space Research Organisation (ISRO) to set up an Indian crafted, indigenous space station by 2035 and land an Indian on the moon by 2040.

ABOUT THE PORTAL

STATE - OWNED NBFC's PUT UNDER PCA NORMS



- The Reserve Bank of India (RBI) has announced that state-owned Non-Banking Financial Companies (NBFCs) will be subjected to the Prompt Corrective Action (PCA) framework, effective from October 2024.
- This move marks a significant shift in regulatory standards for NBFCs, aligning them more closely with those applicable to commercial banks.

PROMPT CORRECTIVE ACTION (PCA)

- RBI initiated the Scheme of Prompt Corrective Action (PCA) in 2002.
- In early 2018, there were 12 banks under PCA framework. Of these, 11 were PSBs.
- Due to recapitalization & corrective measures, there were only six banks (all PSBs) under the PCA framework as of March 2019.

IMPLICATIONS OF PCA FRAMEWORK

- Under the PCA framework, NBFCs will face stringent restrictions like those imposed on banks.

- These include limitations on dividend distribution, remittance of profits and other financial activities.
- The PCA is triggered when certain risk thresholds (related to capital ratios, asset quality, profitability etc.) are breached, aiming to prevent the deterioration of financial health.
- NBFC is a company which is engaged in the business of loans and advances, acquisition and selling of shares, bonds, debentures or leasing insurance, chit-fund etc.
- They play a crucial role in providing credit to the unbanked areas and to the small-scale industries. They're vital for financial inclusion, particularly in areas where traditional banking hasn't penetrated.

GAGANYAAN MISSION

The Indian Space Research Organisation (ISRO) is set to undertake the first of several test flights for the Gaganyaan mission, India's first manned space mission.



OBJECTIVE

- To launch the crew module into outer space and safely return it to Earth with recovery from the Bay of Bengal.

TEST VEHICLE ABORT MISSION (TVD1)

- The first test, termed TVD1, involves a

single-stage, liquid-fuelled rocket specially developed for this abort mission.

- The crew module in this test will be 'unpressurised' and identical to the one planned for actual space deployment.
- Payloads: Crew Module (CM) and Crew Escape Systems (CES).
- The test simulates an abort condition at a Mach number of 1.2 (approx. 330 meters per second, the speed of sound) relevant to the Gaganyaan mission's expected conditions.
- CES will separate from the test vehicle at around 17 km altitude, followed by an autonomous abort sequence, parachute deployment, and a safe sea landing approx. 10 km off the Sriharikota coast.

SIGNIFICANCE AND SUBSEQUENT MISSIONS

- The success of the TVD1 is crucial as it will pave the way for the first unmanned Gaganyaan mission.
- A subsequent test flight is planned for the next year, which will include "Vyommitra," a female robot astronaut, to simulate crew presence and responses.
- These milestones are critical preparatory steps before the final manned Gaganyaan mission, aiming for low earth orbit deployment.

STRATEGIC IMPORTANCE

- The Gaganyaan mission is a significant leap for India's space program, demonstrating advancements in indigenous technology and promoting self-reliance in space exploration.
- Success in these missions will position India among the leading countries

capable of manned space travel, contributing to broader scientific knowledge and potential international collaborations.

REVIEW OF MARITIME TRANSPORT 2023

- As per recent reports of the United Nations Conference on Trade and Development (UNCTAD), international shipping emissions increased by 20% in the last decade.



FINDINGS OF THE REPORT

- Rising Emissions: GHG emissions from international shipping in 2023 were 20% higher than a decade earlier.
- Advocacy for Green solutions: The report calls for collaboration, swift regulation and investment in green technologies.
- Decarbonisation challenges: Full decarbonisation by 2050 will require massive investments and may raise logistics costs, especially for vulnerable shipping-reliant nations.
- Balancing goals: Balancing environmental and economic goals is crucial in the maritime sector.
- Digital solutions: Adoption of digital

solutions like AI and blockchain is recommended for sustainability.

URBAN UNEMPLOYMENT RATE

- The Periodic Labour Force Survey (PLFS) carried out by the National by the National Sample Survey Office (NSSO) has reported that unemployment rate in urban areas of the country has shown a decrease during the period of April-June 2023.

Urban unemployment rate drops to 6.6% in Q1

For men, it decreased from 7.1% to 5.9% and for women, it decreased from 9.5% to 9.1%, show NSSO data; the labour force participation rate in the urban areas increased from 47.5% to 48.8%.

The Hindu Business
NEW DELHI

The Periodic Labour Force Survey (PLFS), carried out by the National Sample Survey Office (NSSO), has reported that unemployment rate in urban areas of the country has shown a decrease during the period April-June 2023.

Similarly, the labour force participation rate (LFPR) for persons aged 15 and above and the worker-population ratio (WPR) have also improved during the period.

This national survey processed details from 1,639 first-stage sampling units (PSUs) and 1,62,961 people from 44,890 urban houses.

The LFPR in urban areas increased from 47.5% in April-June 2022 to 48.8% in April-June 2023. While it hovered around 73.5% for men during this period, for women, the LFPR increased from 20.9% to 23.2% during this period,



The survey processed details from 1,639 first-stage sampling units and 1,62,961 people from 44,890 urban houses, NSSO says.

the Ministry of Statistics and Programme Implementation said in a release here on Monday. The WPR in urban areas increased from 43.9% in April-June 2022 to 45.3% for persons aged 15 and above. For men, it increased from 68.3% to 69.2% and for women, it increased from 16.9% to

20.1% during this period.

Decreasing trend The PLFS claimed a decreasing trend in unemployment rate (UR) for persons aged 15 and above.

"UR in urban areas decreased from 7.6% in April-June 2022 to 6.6% in April-June 2023 for persons of age 15 years and above,"

the PLFS report said.

For men, it decreased from 7.1% to 5.9% during this period and for women, it decreased from 9.5% to 9.1%.

Key indicators

The Centre also claimed improvement in key labour market indicators in urban areas compared with those in pre-pandemic period (April-June 2018 to October-December 2019).

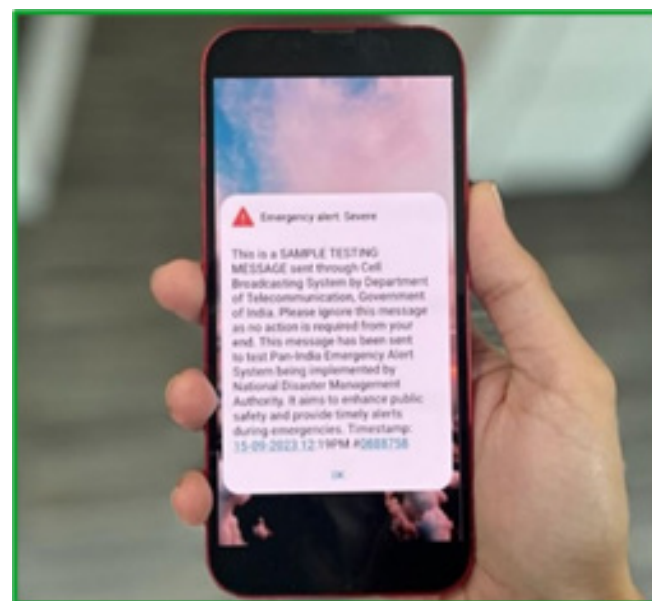
The LFPR ranged from 46.2% to 47.8% during the pre-pandemic period and in the latest report it was 48.8%.

The WPR was between 41.8% and 44.1% before the pandemic and now it is 45.5%.

The unemployment rate ranged between 7.8% and 9.7% during the pre-pandemic period and at the latest survey it was 6.6%, which according to the Centre, is lower than the unemployment rates observed in the quarters covered in the pre-pandemic period.

- The unemployment rate ranged between 7.8% and 9.7% during the pre-pandemic period and at the latest survey, it was 6.6%, which according to the Centre is lower than the unemployment rates observed in the quarters covered in the pre-pandemic period.

CELL BROADCAST ALERT SYSTEM



- The Department of Telecommunications in collaboration with the National Disaster Management Authority will be conducting a Cell Broadcast Alert System testing on 30th October in Assam.

UNEMPLOYMENT

- Unemployment is often used as a measure of the health of the economy.
- The most frequent measure of unemployment is the unemployment rate, which is the number of unemployed people divided by the number of people in the labour force.

KEY INDICATORS

- The LFPR ranged from 46.2% to 47.8% during the Pre-pandemic period and in the latest report it was 48.8%.
- The WPR was between 41.8% and 44.1% before the pandemic and now it is 45.5%.

- It aims to enhance emergency communication during disasters and ensure the safety and wellbeing of citizens.

CELL BROADCAST ALERT SYSTEM

- It is a state-of-the-art technology that allows the sending of critical and time sensitive messages for disaster management to all mobile devices within a designated geographical area irrespective of whether the recipients are residents or visitors.
- It will ensure that important emergency information reaches as many people as

possible promptly.

- It can disseminate CMAS alerts, which is the best standard in the world for issuing alerts.
- Countries like Japan, Canada, United Arab Emirates, Israel, Korea etc. are adopting this technology

SALIENT FEATURES OF CELL BROADCAST

- Real time and location based alerts.
- Mobile numbers are not required. SMS can reach one million people in a few seconds.
- Works even when there is network jam.
- Date is not required, works in multiple languages simultaneously.
- Complies with all emergency standards.
- Cell broadcast is commonly used to deliver emergency alerts, such as severe weather warnings- tsunami, flash floods, earthquakes etc., public safety messages, evacuation notices and other critical information.
- It is used by government agencies and emergency services to inform the public about potential threats and keep them informed during critical situations.

ROLE OF FARMER PRODUCERS' ORGANISATIONS (FPOS)



- In the past two years, Eastern Uttar Pradesh (UP) has seen significant growth in vegetable and fruit exports. This growth is attributed to Farmer Producers' Organizations (FPOs) that have played a pivotal role in promoting cluster-based farming, facilitating technology adoption, and helping farmers market their produce.

WHAT ARE FPOS?

FPOs are voluntary organizations controlled by their farmer-members who actively participate in setting their policies and making decisions to improve their own socio-economic situation and that of their communities.

OBJECTIVES

To Leverage economies of scale in production and marketing to enhance productivity through efficient, cost-effective and sustainable resource use for ensuring sustainable income-oriented farming.

ROLE OF FPOS IN MODERNIZING INDIAN AGRICULTURE:

- FPOs help reduce farmers' costs through bulk purchases of inputs and enable better marketing of farm products. They aggregate produce and offer bulk transport solutions.
- FPOs promote the modernization of agriculture, particularly benefiting small and marginal farmers who may lack access to modern equipment.
- FPO encourage collective farming, addressing productivity challenges associated with limited farm size.
- FPOs empower farmers by enhancing their bargaining power and income levels, enabling them to compete with large corporate enterprises.
- FPOs provide access to modern technologies, credit, capacity-building, and training, and ensure traceability of agricultural produce.
- Farmers within FPOs have easier access to funds and support services from the government, donors, and service providers.
- FPOs play a crucial role in eliminating non-transparent intermediaries in agricultural marketing, leading to better incomes for farmers.
- FPOs minimize post-harvest losses through value addition and efficient management of value chain facilities.

ISSUES FACING FPOS

- Inadequate Professional Management.
- Weak Financials – FPOs primarily comprise small and marginal farmers with limited resources, hindering their ability to provide quality products and services

initially.

- Inadequate Access to Credit – Credit guarantee schemes require FPOs to have a minimum of 500 shareholder members, leaving many small FPOs without access to credit benefits.
- Lack of Risk Mitigation Mechanism – Existing insurance schemes cover production risks for farmers but do not address business risks for FPOs.
- Inadequate Access to Markets – FPOs struggle with limited connections to industry players, retailers, and other market participants.

HIMALAYAN REGION- NEED FOR EIA



This article discusses the importance of Environmental Impact Assessment (EIA) with respect to the fragile Himalayan ecosystem adequately considered in the existing EIA system.

WHAT IS ENVIRONMENTAL IMPACT ASSESSMENT (EIA)?

- As per UNEP - EIA is a tool used to identify the environmental, social and economic impacts of a project prior to decision making.

NEED FOR EIA IN HIMALAYAN REGION

- Recent events like the Teesta dam breach (Sept 2023) in Sikkim and Himachal Pradesh floods and landslides underscore the environmental toll of our development model, particularly in mountainous regions.
- The Himalayan region's unique ecological importance, serving as a water tower and provider of ecosystem services, is not adequately considered in the existing EIA system.
- The differentiated risk management approach used in the regulatory system doesn't account for the special ecological features of the Indian Himalayan Region (IHR).
- Unplanned construction has disrupted natural water flow, leading to frequent landslides and instability in the Himalayan slopes.
- The construction of dams without proper environmental impact assessment could submerge arable lands, and biodiversity hotspots, and displace villagers, affecting fisheries and fish ecology.

GREEN ENERGY CORRIDOR

The Cabinet Committee on Economic Affairs, has approved the Green Energy Corridor (GEC) Phase-II – Inter-State Transmission System (ISTS) for a 13 GW Renewable Energy Project in Ladakh.

WHAT IS GREEN ENERGY CORRIDOR (GEC)?

- It is an initiative aimed at integrating and evacuating renewable energy into India's power grid, promoting sustainable growth and enhancing energy security.
- Implementing agency- Power Grid Corporation of India Limited (POWERGRID).



OBJECTIVES OF GEC

- Synchronize renewable energy (wind and solar) with conventional power sources.
- Achieve 500 GW of installed electricity capacity from non-fossil fuels by 2030.
- Evacuate 20,000 MW of large scale renewable power.
- SIGNIFICANCE
 - Enhance India's long term energy security.
 - Promote eco friendly growth by reducing the carbon footprint.
 - Create employment opportunities for both skilled and unskilled workers.

NAVIGATING THE AI FRONTIER

Navigating the AI frontier

■ Chinmoy Barma

With the three industrial revolutions, the world around us fundamentally changed. They had a profound impact on society, transforming agrarian economies into industrialised ones, as high demand for technology substituted capital and energy for labour. Steam propelled the original industrial revolution, electricity the second, machinery the third, and now, is artificial intelligence (AI) propelling the fourth industrial revolution?

Artificial intelligence is a branch of computer science and technology that focuses on creating systems, machines or software pro-

has the potential to add USD 957 billion, or 15 per cent of the current gross value, to India's economy by 2035, thereby impacting a vast number of industries and changing the way we work, live and beyond. Many people fear that AI will lead to significant job displacement; they worry that AI-powered machines will replace human labour. The fear is obvious and legitimate. According to the World Economic Forum, AI would take away 85 million jobs globally by 2025; but it would also generate 97 million new jobs. It will not be justified to say that AI will take our jobs; people using AI to do the same job will.

further when it is used in legislation, the judiciary, hiring, etc. The fear of 'ChatGPT' generating pro-US answers to the questions asked is very logical, as it is owned by OpenAI, a company based in the US. Such biases can divide society, attack a country's sovereignty, destabilise a region, etc. For intra-border biases, it's important to have country-specific AI systems that understand the region better, and for inter-border biases, we can use machine learning as a subset of AI systems to feed regional information and train it to eliminate biases.

Ethical challenges arising from the very use of AI can have repercussions on society. According to a Capgemini report, 85 per cent of the

social challenges in the field of agriculture, health, education etc.

- AI has the potential to add \$957 billion or 15% of the current gross value to India's economy by 2035.

POTENTIAL THREAT

- Job loss due to replacement of human labour by AI machine.
- Privacy concern – AI can collect and analyse vast amount of private data – prone to misuse – violation of Article 21.
- Here, the Digital Personal Data Protection Bill, 2023 can be a solution to protect citizen's privacy.

ARTIFICIAL INTELLIGENCE

- AI is a branch of computer science and technology that focuses on creating systems, machines or software programmes capable of performing tasks that typically require human intelligence.
- AI is propelling the 4th Industrial Revolution.



POTENTIAL OF AI

- National Strategy on Artificial Intelligence, 2018 by NITI Aayog
- Highlighted the potential of AI to solve

- It can create discrimination in content, automation etc. as AI is being used in legislations, judiciary, hiring process etc.

Ex. ChatGPT's pro US answers, as OpenAI is based in US.

- Such biases can divide society, attack on country's sovereignty, destabilise a region.
- Ethical challenges – greater repercussion on society.
- As per Capgemini report, 85% of the surveyed organisations in India have encountered ethical concerns from the use of AI, ranging from economic impact to humanitarian.
- Advancement of AI benefiting the wealthier disproportionately, exacerbating economic inequality.
- There should be collaboration between academia, civil society and regulators to ensure human centric AI empowers humanity.

GS - V

SRIMANTA SANKARADEVA

- He was a Vaishnav-saint, scholar, playwright, and social-religious reformer, born in 1449.
- Propagated a form of Vaishnavism, called Ek-Sarana-Hari-Naam-Dharma (considered Lord Krishna to be one, eternal and absolute).
- His religious system was strictly monotheistic.
- Poetic works: Kirtana-ghosha, Harischandra-upakhyana, Kurukshetra-yatra, etc.



CONTRIBUTION

- Fountainhead of Ankiya-Naat (traditional Assamese one-act plays), Borgeets, Bhaonas, and Sattriya dance (classical Indian Dance form).
- Began the practice of setting up Namghars or houses of recitation and prayers.
- Visual arts: Sapta vaikuntha, Vrindavani

vastra, etc.

- Values: Humanism, spiritualism, scientism, egalitarianism, etc.

EARLY LIFE & BACKGROUND

- Born in 1449 in Alipukhuri, Nagaon, Assam.
- He belonged to the Kayastha community.
- He lost both parents at a young age and was brought up by his grandmother.

RELIGIOUS PHILOSOPHY

- Sankardeva propagated the Neo-Vaishnavism movement in Assam.
- He emphasized a monotheistic form of worship centered on Lord Krishna and believed in Bhakti (devotion) as the path to salvation.
- Advocated for a caste-less society and brought various communities together through his teachings.

SOCIAL INTEGRATION

- By promoting a caste-less version of Vaishnavism, Shankardeva's teachings led to a more inclusive Assamese society.
- His influence can be credited for the assimilation of various tribal and non-tribal groups into a unified cultural identity.

LEGACY

- Founded Neo-Vaishnavism monasteries known as 'Sattras' that continue to be centers of Assamese culture and religious practices.
- His teachings have shaped Assamese culture, art, literature, and music, fostering unity among various ethnic and community groups in the region.

- Annual festivals and observances, like the 'Raas Leela', are celebrated in his honor and depict episodes from Lord Krishna's life.

DEATH

Sankardeva passed away in 1568, but his teachings and cultural contributions continue to resonate throughout Assam.

RICE FARMING AND IT'S CHALLENGES IN ASSAM

- The agrarian character of the state is dominated with 86% of the small and marginal farmers who jointly own on an average 0.63 ha landholding.
- During 2020-21, Assam had total rice area of 2.36 million hectares with total rice production of 5.21 million tonnes and average productivity of 2.21 t/ha.



WHAT ARE THE CHALLENGES?

- Annual floods and relentless riverbank erosion.
- Small and fragmented landholdings create difficulties in adoption of modern technologies.

Other challenges –

- Biotic and abiotic stresses.

- Limited access to modern technologies.
- Unavailability of quality seed.
- Poor irrigation facilities.
- Limited access to credit, market.
- Change in climate pattern.

IMPACT OF CLIMATE CHANGE IN PADDY CULTIVATION

- Assam is highly prone to the impact of climate change, causing multiple hazards and disaster (soil erosion, landslide, cyclones, chronic floods, occasional droughts).
- Annual mean temperature in the state has increased by 0.59 degree Celsius over the last 60 years (1951-2010) and likely to increase by 1.7- 2.2 degree Celsius by 2050.
- Extreme rainfall events will increase by 38%.
- The Assam State Action Plan for Climate Change (Version 2.0 2021-30) mentions that continued warming of the atmosphere and ensuing changes in the precipitation pattern is impacting the state's water resources, agriculture, forest, its unique biodiversity and habitat.
- Since 2018, International Rice Research Institute (IRRI) has been working as a knowledge partner with Assam Agricultural University (AAU) in rice value chain through the World Bank funded Assam Agri- Business and Rural Transformation Project (APART).
- There are some vital initiatives taken by International Rice Research Institute (IRRI) and Assam Agriculture University (AAU).

SOME THE INITIATIVES ARE

- i. Shuttle breeding programme.
- ii. Agri- Alliance Programme and biotechnological interventions.

- These resulted in development of Stress Tolerant Rice Varieties (STRVs) – Ranjit Sub 1, Bahadur Sub 1.
- This collaboration has prioritized human resource development in the field of rice research.
- The campaign set out to achieve nine world records during this massive tree-planting drive.
- Individuals, self-help groups, frontline workers, educational institutes, and government personnel are joining the effort to plant one crore commercially viable saplings setting their sights on a place in the record books.

ONE CRORE TREES PLANTED IN AMRIT BRIKSHYA ANDOLAN



Around one crore saplings were planted at various locations of the State Assam over one week as curtains came down on the Amrit Brikshya Andolan.



WHAT IS AMRIT BRIKSHA ANDOLAN?

- The Assam Government organized a campaign called "Amrit Brikshya Andolan" aimed at increasing the state's green cover by planting saplings, primarily of commercial trees.
- To make the state greener & give it's residents financial aid.
- Financial Aid after Planting 100 Rupees.
- Financial Grant in 3rd Year 200 Rupees.

OBJECTIVE

- To plant one crore saplings across Assam, involving thousands of people from various regions of the state. Assam government intends to plant eight crore saplings in 2024 and an additional 10 crore saplings in 2025.
- To make the state greener & give it's residents financial aid.
- Financial Aid after Planting 100 Rupees.
- Financial Grant in 3rd Year 200 Rupees.

IMPACT OF CLIMATE CHANGE IN ASSAM

- Assam government today admitted that the impacts of climate change and global warming are being observed in the State, affecting the environment and different sectors.
- Climate change has begun to significantly impact various sectors including water resources, agriculture, forestry, power, rural development, and health.

AGRICULTURE

- Impact on Paddy Cultivation: Abnormal rainfall patterns coupled with unseasonal floods have hampered both Rabi (winter) and Kharif (summer) paddy crops.

- **Tea Cultivation:** The combination of prolonged droughts and increasing temperatures is leading to higher instances of pest attacks on tea plantations.

WATER RESOURCE

1. **Surface Water:** A noticeable decrease in water levels of various water bodies poses a threat to biodiversity.
2. **Groundwater:** There's an alarming depletion in groundwater levels across regions, raising concerns over long-term water availability and sustainability.

BIO-DIVERSITY & ECOSYSTEM

1. **Flora and Fauna:** Climate change is instigating discernible alterations in the ecosystem, leading to changes in the distribution, behavior, and population dynamics of various species.



2. **Threats to Biodiversity:** Decreasing water levels in natural habitats threaten species, especially aquatic ones, leading to reduced populations or even extinction in certain cases.

HEALTH

1. **Heat-related Illnesses:** There's a surge in instances of heat strokes, primarily due to soaring temperatures and prolonged heatwaves.
2. **Vector-borne Diseases:** Global warming is escalating the geographic spread of

diseases carried by vectors (like mosquitoes). This includes diseases like malaria, dengue, and chikungunya, among others.

POWER & DEVELOPMENT

While not explicitly mentioned in the provided data, it's worth noting that climate change impacts power generation, especially hydropower due to irregular water flow. Rural development is also at risk as irregular weather patterns can disrupt infrastructural developments, livelihoods, and local economies.

SMALL TEA GROWERS IN STATE

There are 1,25,484 small tea growers in Assam who cultivate tea in 1.17 lakh hectares of land (stated in a written reply during the Question Hour in the Assam Legislative Assembly by Minister of Industries & Commerce and Public Enterprises Bimal Borah).

GROWTH CONDITION OF TEA

- **Tea** is a beverage made from the *Camellia sinensis* plant. It is the world's most consumed drink, after water.
- **Climate:** Tea is a tropical and sub-tropical plant and grows well in hot and humid climates.
- **Temperature:** The ideal temperature for its growth is 20°-30°C and temperatures above 35°C and below 10°C are harmful for the bush.
- **Rainfall:** It requires 150-300 cm annual rainfall which should be well distributed throughout the year.
- **Soil:** The most suitable soil for tea cultivation is slightly acidic soil (without calcium) with porous sub-soil which permits a free percolation of water.

PROBLEMS FACED BY SMALL TEA GROWERS

- **Fluctuating Prices:** Small tea growers are often subject to the volatility of market prices, largely due to their limited bargaining power with middlemen and brokers.
- **Climate Vulnerabilities:** Tea crops are sensitive to climatic changes. Unexpected weather patterns, driven by global climate change, can adversely affect yield and quality.
- **High Production Costs:** Small scale growers grapple with the high costs of inputs like fertilizers, labor, and machinery, often with minimal returns due to fluctuating market prices.
- **Limited Access to Quality Inputs:** They may struggle to obtain high-quality saplings, fertilizers, and pesticides, impacting both the quantity and quality of their produce.
- **Credit Constraints:** Accessing institutional credit can be challenging, pushing them towards local moneylenders who charge high interest rates, trapping them in debt.
- **Land Tenancy Issues:** Some small tea growers face challenges with unclear land titles or land fragmentation, bringing in issues of security and operational efficiency.

WAY FORWARD

- Strengthening Institutional Support by establishing dedicated agencies or departments to oversee and support small tea growers, which can act as a bridge between growers, markets, and research institutions.
- Investment in Research & development to develop climate-resilient tea varieties, innovative farming techniques, and

sustainable pest control measures.

- Review and reform land tenure systems, ensuring that growers have clear rights to their lands and deter land fragmentation.
- Leverage technology to provide real-time market data, weather predictions, and virtual training sessions.
- Foster a collaborative environment where growers, industry leaders, governments, NGOs, and researchers can regularly discuss challenges and co-create solutions.

OIL TO INVEST RS 25,000 CR. TO ACHIEVE NET ZERO TARGETS



Oil India Limited (OIL) has set an ambitious target of transforming itself to a 'Net-Zero' emission company by 2040 through a range of initiatives, including adopting cleaner energy sources, investing in renewable energy projects and implementing advanced technologies to minimize greenhouse gas emissions.

WHAT IS NET ZERO?

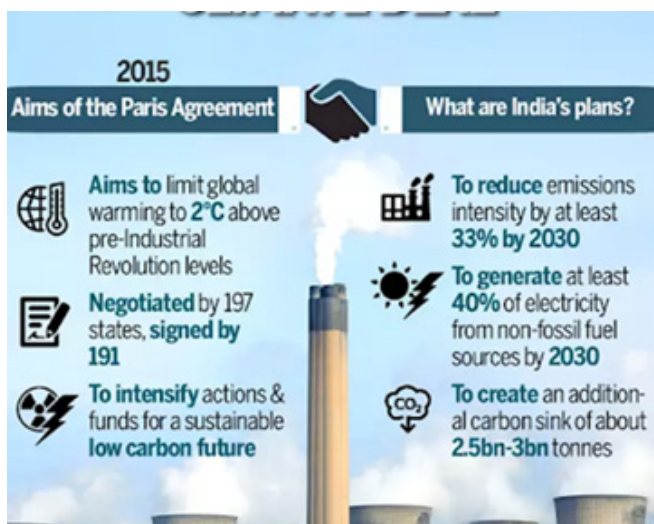
- It is referred to as carbon neutrality.
- It refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from

the atmosphere.

- Essentially, a net zero target aims to ensure no net increase in greenhouse gases in the atmosphere.

INDIA'S NET ZERO PLAN

- India came out with the target to achieve net zero by 2070, as it promised in the previous COP meeting (COP26).
- In the COP27 held in Egypt in November 2022, India deliberated upon the mechanism to achieve the aforesaid target.
- India also promised to meet its 50% energy demand from renewable sources of energy.



CHALLENGES FOR INDIA

- Heavy dependency on coal for energy.
- Rapid industrialization and urbanization leading to increased energy demands.
- Balancing development needs with environmental concerns

WHAT STEPS HAVE BEEN TAKEN BY INDIA TO ACHIEVE NET- ZERO EMISSIONS BY 2070?

- **Renewable Energy Expansion:** India pledged to increase its non-fossil fuel energy capacity to 500 GW by 2030.

- **Carbon Intensity Reduction:** India plans to reduce the carbon intensity of its GDP by at least 33%–35% by 2030 compared to 2005 levels.
- **Green Hydrogen Mission:** India launched the National Hydrogen Mission in 2021 to develop green hydrogen as a fuel and energy storage solution, aiming for a transition to a hydrogen-based economy.
- **Afforestation and Land Restoration:** India committed to restoring 26 million hectares of degraded land by 2030.
- It also plans to create an urban forest in 200 cities by 2030.
- **Energy Efficiency:** Programs such as the Perform Achieve and Trade (PAT) scheme aim at improving the energy efficiency of major energy-intensive industries.
- **International Collaboration:** India co-founded the International Solar Alliance (ISA) to mobilize solar energy solutions and investments in solar-rich countries.

POWER CRISIS



- The power requirement has been rising exponentially in the State and will shoot up to 4,000 MW by the end of 2026.
- To meet the gap the State government has tied up with various sources for an additional 2,678.22 MW.

- While the State is far from self-sufficient in power generation, matters stand worsened by the failure of the authorities to ensure full capacity utilization of the existing hydel and thermal plants.
- For putting an end to the people's power woes, thrust has to be accorded to power generation.
- Aside from ensuring full capacity utilization of all the plants, it is imperative that we explore prospects of setting up smaller hydel projects that can easily meet local demand. The same applies for promoting solar power on a mass scale.
- Any deficiency in production will cause the State to remain dependent on outside sources, resulting in high power tariff for the consumers.

WAY FORWARD

- Enhance renewable Energy Capacity.
- Modernize Existing Infrastructure.
- Energy Efficiency Measures.
- Decentralized Power Generation.
- Public-Private Partnerships (PPP).
- Increasing Grid Connectivity.
- Revamping Regulatory Framework

CAG FLAG LAPSES IN MOITRI



- A CAG report states in-stances of irregularities in the tendering process, inflated cost estimate and excess payment have been detected in an audit of the MOITRI scheme.

ABOUT THE MOITRI SCHEME

- Mission of Overall Improvement of Thana for Responsive Image (MOITRI) scheme launched in July 2016.
- It aimed to create modern and citizen-friendly infrastructure in 345 police stations within five years. (2017-18 to 2021-22).

KEY FEATURES

- The condition of the police stations to be improved through the help of digitalization and make it more flexible for people to get any information or make any complaint using the digital facilities.
- To improve physical infrastructure of the Police stations.
- The government will refurbish 346 police stations within 2023 under the scheme.
- Assam government will categorize all the police stations and there will be three

- categories such as Rural, Town & Metro.
- The 346 police stations covered under the MOITRI scheme will be transformed into centers for PSDS (Public Service Delivery System).
- The main motive of the scheme is to convert and remodel all the police stations in such a way that distance between the common people and the police force is abridged.
- The prisoners of different genders will be separated as the government will ensure different cells for females. Also, a separate entrance for women to the police stations will be ensured.
- The government will also ensure children are able to enter along with women to the police station through a different entry gate.

BORDER DISPUTE: ASSAM PROPOSES 4TH ROUND OF TALKS WITH MIZORAM



Assam government has intimated its proposal to hold the fourth round of minister level talk on the interstate border dispute issue with Aizawl soon.

HISTORICAL BACKGROUND

- The root of the conflict can be traced back to the colonial time.
- During colonial times, Mizoram was known as Lushai Hills, a district of Assam.

Mizoram was granted statehood in 1987 by the State of Mizoram Act, 1986.

- Assam became a constituent state of India in 1950 and lost much of its territory to new states that emerged from within its borders between the early 1960s and the early 1970s.
- The boundary between Assam and Mizoram is demarcated based on two notifications from the British era: the 1875 notification, which is accepted by Mizoram, and the 1933 notification, which is endorsed by Assam.
- These discrepancies in the historical records are a major cause for the border disputes.
- Mizoram became a Union Territory in 1972 and was accorded statehood in 1987. The boundary dispute has been lingering since then.
- The primary points of contention are the stretches in three districts: Cachar, Karimganj, and Hailakandi in Assam, bordering Kolasib in Mizoram.
- Several peace talks and dialogues have been initiated over the years, but a permanent solution remains elusive.
- Land ownership claims, encroachments, cultural differences, and economic interests exacerbate the disputes.
- Simmering border dispute resulted in a plethora of violent activities along the Mizoram-Assam border for decades.
- Violence broke out between the police forces of the two states on July 27, 2021 leaving five Assam police personnel killed.

WAY FORWARD

- Need for a well-documented, comprehensive dialogue between the

two states with the Centre's mediation.

- Using satellite imagery and ground surveys to identify and agree upon boundary markers could be a practical step.
- Fostering cultural exchange and people-to-people contact between the two states can help in reducing animosity and misunderstanding.

ASSAM TO USE EVM IN RURAL POLL

The Assam Cabinet has approved the amendment of certain provisions of the Assam Panchayat Act to introduce Electronic Voting Machines (EVM) in Panchayat elections and disqualify elected representatives for violating legal age of marriage.



REORGANISING PANCHAYATI RAJ SYSTEM

- Approved to amendment of certain provisions of Assam Panchayat Act, 1994.

Following provisions to be added-

1. Indirect election for Post of President in Gaon Panchayat – new GP President will be elected from the 10 GP members.
2. Introduction of Political Symbol in elections of Zilla Parishad and Anchalik Panchayat – no party symbols for candidates contesting GP elections.
3. No confidence motion cannot be initiated for first 2.5 years of term of President and VP

of Gaon Panchayat (AP) and Zilla Parishad(ZP).

4. Reservation of seats for SC/ST by rotation in wards of GPs having more than 10% SC/ST population.
5. Constitution of Ward Sabha.



6. Categorisation of Districts to be on the basis of Population Density and reorganisation of GPs to be done accordingly.

7. State level Recruitment Commission to conduct the Grade III and Grade IV recruitments in Panchayat.

8. Introduction of EVMs in panchayat election.

9. Constitution of District Delimitation Commission to decide the size of ZP/AP/GP constituencies- commission to consist of DC (as chairman), CEO, ZP (as Member Secretary) and Election Officer (as Member).

10. Disqualification of elected representatives of Panchayats upon violation of legal age of marriage.

11. Disqualification of members of political party due to Anti-Defection.

12. Audit of ZP accounts by the Accountant General of Assam.

13. ZP members may be allotted to some departments for monitoring and supervision as is done in Guwahati Municipal Corporation (GMC) – President of ZPs to nominate members to supervise and monitor progress of activities of different departments at the district level, as decided by the Govt.

LOCALISED ACTION FOR CLEAN AIR

- Earlier this year, Guwahati found itself on the global list of 100 most polluted cities as well as in the list of top 10 most polluted cities of Asia.
- It has recorded Air Quality levels equals to Delhi- NCR and even more severe at times in the recent past.



- This data is primarily based on monitoring of PM 2.5
- PM 2.5, a fine particulate matter that poses serious health risks when present in the atmosphere.
- Sources – vehicle emissions, industrial process and biomass burning.
- The city has experienced a substantial number of days categorised as 'poor' and 'very poor' in terms of Air Quality Index- (AQI) in the recent past.

BACKGROUND

- The climate of North East India is changing, which includes changing rainfall patterns over the region, resulting in overall drying up of the region.
- At present, seven cities from three north-eastern states, namely, Dimapur (Nagaland), Byrnihat (Meghalaya), Guwahati, Nagaon, Nalbari, Sivasagar and Silchar (Assam), find a place on the list of 131 non-attainment cities under the National Clean Air Programme (NCAP).

REASON FOR POOR AQI

- The city has one of the highest black carbon pollution levels in the state.
- Fossil fuels contributed to 70% of black carbon pollution in Guwahati and 30% due to biomass burning.
- This high pollution leads to higher temperature in the city.

CONSEQUENCES

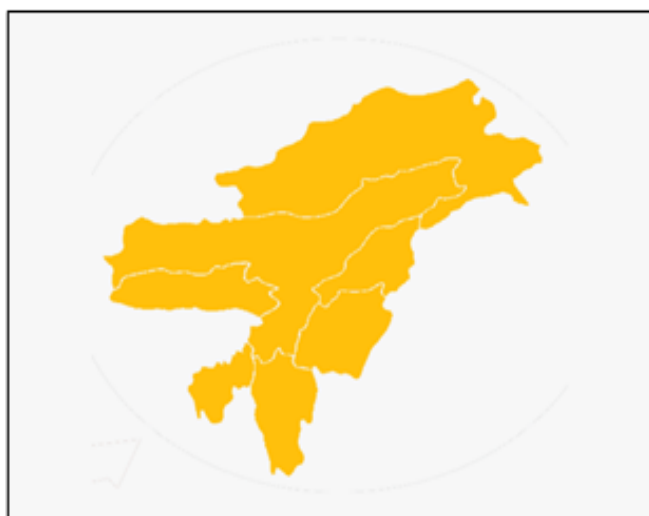
- IIT, Guwahati study found that exposure to Black Carbon pollution cause health risk equivalent to passively smoking 25 cigarettes every day.
- A vulnerability study conducted in Guwahati also found that farmers are the most sensitive to climate change, followed by drivers and street food vendors.

WAY AHEAD

- Need to reset our approach to policy making and implementation.
- Advocate effective and decentralised governance.
- Bolster monitoring resources and invest for scientific research.

- Capacity building of administrators to mitigate local sources.
- Encourage entrepreneurs to innovate local solutions and empower civil society with right information to enable them to be active stakeholders.

UNLOCKING TRADE & CONNECTIVITY IN THE NORTH EAST THROUGH RIVER ROUTE



BRAHMAPUTRA: THE UNDERUTILIZED WATERWAY

- Despite its potential, the Brahmaputra's use as a key waterway connecting Assam and Bangladesh remains suboptimal.
- Efforts to transform it into an international hub are ongoing, but the larger vision is yet to be realized.

ECONOMIC PROSPECTS

- **Boosting Exports:** Improving water transportation can significantly elevate exports between Assam and Bangladesh.
- **Tourism Opportunities:** Plans for river cruises, connecting cities like Kolkata-Dhaka and Guwahati-Jorhat, can open avenues for tourism.

- **Jogighopa's Potential:** As a trans-shipment hub, Jogighopa can be pivotal for cargo movement to nearby regions and Bhutan.

ENHANCING NORTH EAST CONNECTIVITY

- **Leveraging Bangladesh Routes:** For the North East's rapid development, superior transit facilities via Bangladesh are essential. The routes provide seamless trade connectivity, both domestically and internationally.
- **Transit:** A symbiotic transit relationship where both countries benefit can foster economic growth.

ASSAM PORTS: REVITALIZING TRADE

- The central government's initiative to develop major ports through Public-Private Partnerships can be a game-changer for Assam.
- The focus remains on transforming ports like Pandu and Dhubri into vibrant export hubs through strategic outsourcing.

HARNESSING THE NORTH EAST'S STRATEGIC POSITION

- The North East's unique location offers lucrative avenues in tourism, industry, and cultural exchanges.
- To tap into this potential, investment in infrastructure, like airways and roadways, is crucial.
- The Brahmaputra holds immense promise for the North East's international connectivity and trade. Realizing this vision demands strategic planning, infrastructure investments, and strengthened bilateral ties.

FOUNDATION OF A 778 CRORE PEPSICO PLANT IN NALBARI

The laying of foundation for the Rs 778-crore PepsiCo plant in Nalbari is a much needed addition to the State's industrial spheres.



SIGNIFICANCE OF LAYING THE FOUNDATION OF PEPSICO PLANT IN NALBARI, ASSAM

- It can boost the region's fledgling industrial scenario and can send out a strong signal about Assam being an investor friendly State for prospective industrialists.
- It is the few success stories which can go a long way in placing Assam firmly in the country's industrial map.
- It will provide direct employment to around 500 people.

CHALLENGES THAT LIE AHEAD FOR THE GOVERNMENT

- Lack of uninterrupted and quality power supply.
- All-weather roads not developed

throughout the state.

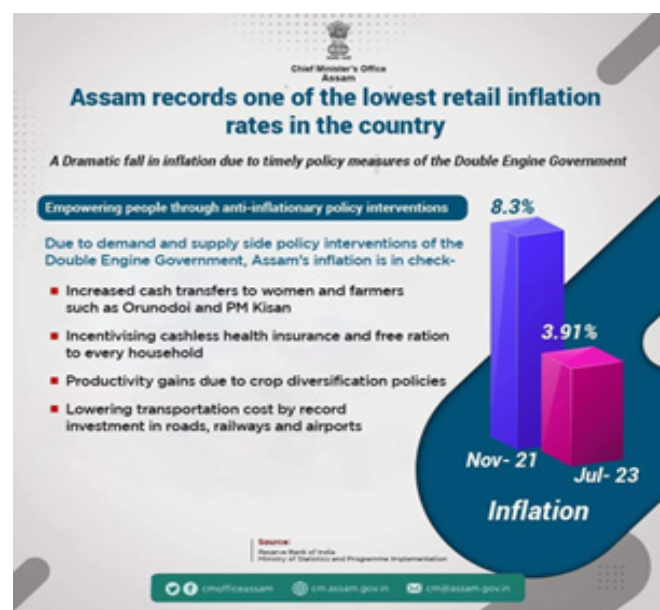
- Lack of skilled labour.

ANTI INFLATIONARY MEASURES OF ASSAM GOVERNMENT

Assam achieved significant milestone by ranking among states with lowest retail inflation rates.



- The demand and supply side policy measures of Union and State Government have significantly reduced inflation in Assam.
- Timely and decisive policy interventions of state government have ensured stable commodity prices.



WHAT IS INFLATION?

- It refers to the rise in the prices of most goods and services of daily or common use such as food, clothing, housing, recreation, transport etc.
- It measures the average price change in a basket of commodities and services over time.
- The opposite and rare fall in the price index of this basket of items is called 'Deflation'.

TYPES OF INFLATION

TWO TYPES OF INFLATION

1. Demand pull inflation, which arises when aggregate demand in the economy becomes more than aggregate supply.
2. Cost push inflation is defined as an increase in the cost of production elements such as labour, raw materials etc.

ANOTHER IMPORTANT TERM ASSOCIATED WITH INFLATION

STAGFLATION

1. The situation in which the inflation rate is high, the economic growth rate slows and unemployment remains steadily high.



ANTI- INFLATIONARY MEASURES OF ASSAM GOVERNMENT

- Increased cash transfers to women and farmers through Orunodoi and PM Kisan scheme.
- Cashless health insurance and free ration to every household.
- Fall in fuel prices.
- Decrease in electricity tariffs.
- Increased productivity via crop diversification policies.
- Lowering transportation costs by record investments in roads, railways and airports.

PAIK SYSTEM



- The Ahom Kingdom's rule over six hundred years depended on many facets which played an important role in ensuring the kingdom's immunity from invading enemies.
- One such element was the topography and natural frontiers of the region. They helped in isolating the kingdom from the empires of the west and the east.
- Along with natural elements, it experimented social and administrative system to ensure its prosperity and security.

One of them was the Paik System.

PAIK SYSTEM

- All active people in the age group of 16 to 50 years came under the purview of Paik system.
- Each individual was called as Paik.
- Four Paik came together to form a 'Got', which was the primary unit of organisation in the Ahom production system.
- Each Paik from the 'Got' had to render compulsory service to the state without wage for one quarter in a year, while the other three Paiks looked after their farmland and household.
- The Paik rendering service to the state had to take part in various productive and construction activities – road buildings, dams, fortifications and temples. They were also involved in agriculture on the state owned estates and farms.
- During the time of war, they had to render compulsory military service as the Ahom Kingdom did not have a regular standing army.
- Thus whether in times of war or peace, 1/4th of the paiks were always in a state of mobilisation for compulsory state service.
- In return for their services, each paik was given 2.66 acres of wet rice land as tax free land for subsistence agriculture.
- Any surplus land was to be taxed.

ADVANTAGES OF PAIK SYSTEM

- Due to paik system and the absence of a regular army saved the state from a massive financial burden.
- During war time, it was actually possible to call more than two paiks from any got for

military duty.

- It is argued that the allotment of tax free lands gave an impetus to the paiks to go for intensive agriculture and the produce could then be sold in the nascent markets.
- They not only provided a steady source of labour for the state but acted as multipliers in churning the economy.
- The absence of wage payment to the labourers meant that it saved the state of a significant financial outlay while creating durable assets that paid dividends in the long run.

ASSAMESE LITERARY TITANS



The 159th birth anniversary of Lakshminath Bezbaruah and the birth centenary of Jnanpith Award winner Dr Birendra Kumar Bhattacharya were celebrated on Sunday.

LAKSHMINATH BEZBARUAH: ARCHITECT OF THE ASSAMESE RENAISSANCE

Education: Graduated from General Assembly's College, Kolkata, in 1890. Declined government jobs post-graduation, emphasizing personal independence.

- Positioned as the President of the Assam Sahitya Sabha.
- Bestowed the title "Rasaraj" for his literary contributions in 1923.
- His era, 1890-1940, is heralded as the "Age of Bezbaruah" in Assamese literature.

PIVOTAL ROLE IN THE ASSAMESE LANGUAGE MOVEMENT

- While in Kolkata, Bezbaruah absorbed Western literary influences, significantly shaping his later works.
- Co-founded the Assamese Language Development Sadhini Sabha in 1888, vital for the Assamese language revival.
- Launched 'Jonaki' magazine in 1889, a cornerstone for modern Assamese literature, emphasizing regional heritage and pride.

LITERARY CONTRIBUTIONS

- Pseudonym Kripabar Baruah.
- His business ventures and editorial roles, particularly with the 'Baahi' magazine, further solidified his influence in Assam's socio-cultural spheres.
- Pioneered modern Assamese literature through diverse genres; significant works include 'Kadamkali', 'Surabhi', 'Padum Konwari'.

BIRENDRA KUMAR BHATTACHARYA: MODERN ASSAMESE LITERARY STALWART



ABOUT

- Prominent Assamese novelist and short story writer (1924-1997).
- Pioneered modern Assamese literature, known for social realism.
- First Assamese writer to receive the Jnanpith Award (1979).
- Sahitya Akademi Award recipient (1961).
- Assam Sahitya Sabha President (1983-85).

MAJOR WORKS

- Debut: "Rajpahte Ringiai" (1957) - renowned for its one-day event narrative.
- "Mritunjay" - won the Jnanpith Award (1979); depicted pre-independence Assam.
- "Iyaruingom" (1960) - received the Sahitya Akademi Award; focused on Tankhrool Naga tribes' struggles.
- Other works: "Aai" (1958), "Shataghni"

(1964), "Pratipad," "Ranga Megh," "Daaini," "Ballari."

SHORT STORIES & POEMS:

- Collections include "Kolong Aajiu Boi" and "Satsori."
- Poems featured in "Jayanti" magazine.
- Translated Work: "Love in the Time of Insurgency" (2005) - posthumous translation.

TACKLING FLOOD AND LANDSLIDE IN GUWAHATI

- Landslides in Guwahati has become regular incidents.
- Flash flood are affecting the low lying areas along the Basistha- Bahini- Bharalu rivers.
- Both the hilly and valley population are subjected to these hazards which are also linked to overgrowing population.
- All these show that the issue of landslides, flash flood and shrinking of wetlands in Guwahati are interlinked.
- Due to Guwahati's landscape of isolated hills interspersed with narrow valleys and a number of wetlands, availability of plain land is limited to cater to the need of a burgeoning population, resulting in settlement expansion uphill.
- Consequently hill slopes have lost their natural stability and losing green safety cover that inhibits percolation of water into the loose soil.
- Barren slopes generate massive sedimentation on the drainage system and lead to frequent flood.
- Reduction of carrying capacity of channels both from encroachments and

dumping of non biodegradable wastes like plastics.

- Silsako and associated wetlands form the principal storm water storage in eastern part of Guwahati.
- In case of Deepor Beel, massive filling and construction activities in the Northeastern part of the beel is responsible for the inundation.

STEPS

- **GMDA Master Plan, 2025:** Emphasised on importance of maintaining the city drainage system and Bharalu river.
- **Regulatory intervention:** Building bylaws may be integrated with the master plan.
- Ensure green cover and opt for bio engineering – targeted increase of green cover.
- Data driven approach – need of precision survey of the present landscape.
- Invest in R&D for early warning system – an effective early warning system will help in minimising the damage to property.

FLOOD AND RIVERBANK EROSION RISK MANAGEMENT IN ASSAM



- ADB approves \$200M loan to strengthen flood and riverbank erosion risk management in Assam, India.
- The project builds on the success and lessons from the ADB-financed Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program (2010–2020) and similar investments in Bangladesh and will continue to tackle recurrent flooding and continual riverbank erosion of the Brahmaputra River.
- The project will apply a holistic, integrated and risk-informed approach to scale up investment in flood and riverbank erosion risk management and its long-term planning, while intensifying support for climate and disaster resilience and food security in five high-priority districts (Dibrugarh, Goalpara, Kamrup Rural, Morigaon, and Tinsukia).
- By optimizing co-benefits and empowering women through disaster-resilient economic activities, the project will benefit about 1 million people and increase crop production over 50,000 hectares
- The Flood and River Erosion Management Agency of Assam will lead, manage, and coordinate the project activities.
- The Water Resources Department of the Government of Assam will implement the works and the Assam Agroforestry Development Board will use nature-based solutions.
- The Brahmaputra Board, the Assam State Disaster Management Authority and the Assam Inland Water Transport Development Society will be partner agencies of the project.

ASSAM SANSKRITIK MAHASANGRAM



- In a move to provide platform to the talents living across the state, Assam Government is organising Sanskritik Mahasangram.
- The Chief Minister of Assam yesterday unveiled the logo, theme song, memento, jingle, certificate and judges' kit for the Mahasangram at a programme held in Guwahati.
- Under this scheme, every gram panchayat/Municipal/ Ward/village council development committee/MAC level will organise competitions in six categories – Jyoti Sangeet, Rabha Sangeet, Bhupendra Sangeet, Rabindra Sangeet, one folk dance and Bihu.
- Subsequently, the winners will compete at assembly level and district level, which will culminate in a competition at the State level.
- This event is being organised in a bid to give exposure to the inherent talents and give an impetus to the holistic personality development of the of youth.

- Around 10 lakh participants from across the state will participate in the Mahasangram in around 3000 venues.

ORUNODOI 2.0



- Orunodoi 2.0, a welfare scheme aimed at providing financial support to underprivileged women in Assam, was launched by Chief Minister Himanta Biswa Sarma.
- The launch event took place in Kokrajhar, with plans to distribute Orunodoi cards to new beneficiaries.
- The scheme is set to include 21,000 beneficiaries in Kokrajhar alone.

ABOUT THE SCHEME

- Under Orunodoi 2.0, 26 lakh women across the state will receive financial aid of Rs 1,250 per month.
- The funds will be directly credited to the beneficiaries' bank accounts.
- The scheme aims to alleviate poverty-related issues among less privileged women, providing them with means to afford basic necessities.

CHILD MARRIAGE CRACKDOWN 2.0

The Govt. of Assam has recently launched a massive crackdown on child marriage under child marriage crackdown 2.0 from the last month.

WHAT IS CHILD MARRIAGE?

- Child marriage usually refers to a social phenomenon practiced in some societies in India, where a young child (a girl below the age of eighteen) is married to an adult man.
- Recent analysis by UNICEF points out that one in three of the world's child brides live in India. It has also warned India against the increase in child marriages owing to the adversaries of COVID-19.



REASONS FOR CHILD MARRIAGE IN INDIA

- Lack of education among the women.
- Lack of economic empowerment of women.
- Stereotype mentality among the parents and society.

CONSEQUENCES OF CHILD MARRIAGE

- Infant Mortality Rate of Assam- 36 per

1000 live births against the national average of 28.

- Maternal Mortality Rate of Assam is 195 per 1 lakh live births where the National average is 115.

WHY IS IT NECESSARY IN ASSAM TO CONTROL CHILD MARRIAGE?

- As per findings of the National Family Health Survey-5 carried out between 2019 and 2020, 31.8 % of women aged between 20-24 years in Assam were married before the legal age of 18 years. This is also much higher than the national average figure of 23.3 per cent.
- This report shows the present picture of Assam in the context of child marriage is a very serious matter of concern.

RUBBER PLANTATION IN NORTH EAST

NE climate suitable for rubber plantation, says team of experts

ANN SERVICE

MIRZA, Oct 16: At least 32 members of the Association of Natural Rubber Producing Countries (ANRPC), an inter-governmental organisation from countries such as Thailand, Vietnam, Papua New Guinea, Malaysia, Indonesia, Cambodia, etc, recently visited Assam and Meghalaya to take stock of the natural rubber production scenario in the two states.

The team was led by executive director of the Rubber Board, M Vasanthagesan. The team inspected nurseries of natural rubber developed by Omega Green Solutions at Umsheva in the Mairang district of Meghalaya near the Assam-Meghalaya border, as also some nurseries located in Assam, and stated that the climate and soil of Assam and Meghalaya are suitable for natural rubber cultivation and there is tremendous potential for production of natural rubber on a large scale in order to boost

economy of the two states, besides providing employment to the unemployed youths of the two states.

Vasanthagesan told the media that more than 84 per cent of the natural rubber of the world is produced by only 13 Asian countries including India, Vietnam, Thailand, Cambodia, Indonesia, Bangladesh, China, Myanmar, the Philippines, Singapore, Sri Lanka, Papua New Guinea and Malaysia. The youths of Assam and Meghalaya should come forward to cultivate natural rubber in their land, he said.

Vasanthagesan further laid stress on cultivation of natural rubber in two lakh hectares of land in Assam and Meghalaya.

Later, the team held a meeting and discussed various aspects of natural rubber productions with emerging entrepreneurs. Vasanthagesan gave a brief outline of rubber production and its scope in India in the meeting, where several rubber growers shared their experiences.

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- They stated that the climate and soil of

Assam and Meghalaya are suitable for natural rubber cultivation.

NATURAL RUBBER

- It is a versatile and essential raw material derived from the latex or milky sap of certain plant species, primarily the rubber trees, scientifically known as *Hevea brasiliensis*.
- This latex contains a complex mixture of organic compounds with the primary component being a polymer called polyisoprene.



CLIMATIC CONDITION REQUIRED FOR RUBBER CULTIVATION

- Tropical climate with annual rainfall of 2000-4500 mm is suited for cultivation.
- Requires deep and lateritic fertile soil.
- Minimum and maximum temperature should ranged from 25 to 34°C with 80% relative humidity is ideal for cultivation.

RUBBER DISTRIBUTION

- Major rubber producing states are Kerala, Tamil Nadu, Tripura and Assam.
- The lion's share of this rubber farming is concentrated in the southern states of Kerala and Tamil Nadu.

ADVANTAGES OF RUBBER CULTIVATION

Research Institute was planted in Assam.

- Boost the economy
- Employment to unemployed youths

MAJOR APPLICATIONS

- Tyre manufacturing
- Automotive parts – used in seals, gaskets and various components of vehicles.
- Footwear
- Medical devices – gloves, syringe plungers
- Consumer goods – balloons, erasers etc.
- Sporting goods – tennis balls, golf balls and protective gears etc.

ADDITIONAL FACTS

- More than 84% of the natural rubber of the world is produced by only 13 Asian countries including India, Vietnam, Cambodia, Thailand, Indonesia, Bangladesh, China, Myanmar, the Philippines, Singapore, Sri Lanka, Papua New Guinea and Malaysia.
- India is the 5th largest producer of natural rubber.
- But around 40% of India's total rubber consumption is currently met through imports.
- Assam holds the second position in terms of rubber production and is only next to Tripura in Northeast.
- Major rubber producing districts in Assam are Goalpara, Karbi Anglong and Karimganj.
- The World's first Genetically Modified rubber plant developed by Rubber

Prelims

MITAKSHARA LAW

Recently, Supreme Court ruled that children born out of void or voidable marriages is entitled to parents share in a Hindu Undivided Family-HUF governed by Mitakshara law.

MITAKSHARA LAW

- It is a Hindu law school that governs the succession of property in a HUF.
- It holds that the son, grandson, and grandson's son have a right to the family property through birth.
- It also recognizes the right of daughters to inherit property, albeit with certain limitations.

DASH LINES

- Malaysia, Vietnam, Thailand and Philippines have rejected the new map of China as it depicts Dash-lines as a Chinese Territory.
- China stakes claim to the South China Sea, and this claim is based on the U-shaped imaginary nine-dash line etched on map in these by China.
- It covers various islands including Paracels, Spratlys and many other islands.
- Permanent Court of Arbitration of UNCLOS has ruled that China's claim in the area has no legal basis.

EXPORT CONTROL OF DUAL-USE ITEMS

- Government aims to enhance export control over dual-use items to prevent their access to non-state actors and terrorists.
- Dual-use items are goods, software and technology that can be used for both civilian and military applications. E.g., chemical and biological tools, etc.
- Currently, export of dual use items in India's Control List called SCOMET list Special Chemicals, Organisms, Materials, Equipment, and Technologies is regulated as per India's Foreign Trade Policy.
- Export of items in this list is either prohibited or is permitted under an export authorization from various designated licensing authorities notified by Government of India.

RATIONALIZATION OF COAL LINKAGES

- Ministry of Coal has initiated a policy initiative called rationalisation of Coal Linkage.
- It aims to reduce the distance in transportation of coal from Coal Mines to consumers, thereby decreasing transportation costs and increasing efficiency in coal-based power generation.
- Through this initiative, Coal PSUs are fostering a more sustainable energy ecosystem.
- So far, four rounds of rationalization of linkage have taken place, covering Thermal Power Plants.

- The move has resulted in rationalising of total million tonnes of coal and has saved around crores to Government.

BHORAMDEO WILDLIFE SANCTUARY (BWS)

- Chhattisgarh HC has dismissed a plea that aimed to designate BWS as a tiger reserve.
- BWS is situated in Kawardha district of Chhattisgarh and shares its border with Kanha National Park in Madhya Pradesh.
- Flora: Sal, Saja, Teinsa, Kara and Haldu species.
- Fauna: Animals like leopard, hyena, fox, bear, cheetal, wild buffalo, nilgai etc.
- Vegetation: Mix of dense forests and open grasslands.
- River Sakari flows through the sanctuary.



SUKAPAIIKA RIVER

- The Odisha government has decided to rejuvenate the Sukapaika river.
- It is a distributary of Mahanadi River.
- It branches away from the Mahanadi at Ayatpur and flows for about km before rejoining its parent river.
- Mahanadi originates from Sihawa Mountain in Chhattisgarh.
- Major Distributaries: Birupa, Chitroptala, Genguti and Lun.
- Left bank Tributaries: The Seonath, the Hasdeo, the Mand, and the Ib.
- Right bank Tributaries: The Ong, the Tel, and the Jonk.

PULIKALI TIGER DANCE

- Pulikali is a folk dance of Kerala.
- During the Onam festival, artists paint their bodies like tigers with stripes of yellow, red and black.
- They dance to the rhythm of traditional percussion instruments such as thakil, udukku and chenda.
- Main theme of the dance is tiger hunting with participants playing the role of tiger and hunter.



MAHENDRAGIRI Y

- The seventh and last stealth frigate of Project A, Mahendragiri, was launched at Mazagon Dock Shipbuilders Limited MDL in Mumbai.
- Mahendragiri, named after a mountain peak in Eastern Ghats located in Odisha.
- Project A Frigates are the follow-on class of the Project Shivalik Class Frigates, with improved stealth features, advanced weapons sensors and platform management systems.
- Project A ships have been designed in-house by Indian Navy's Warship Design Bureau.

AMUR FALCONS

The Manipur Forest Department will carry out a first-ever census of Amur falcons in the state, the world's longest travelling raptors in Tamenglong district.

ABOUT AMUR FALCONS

- This bird, locally referred to as Akhuipuina, is a small raptor of the falcon family.
- Thousands of these raptors roost in Nagaland's Wokha, Assam's Dima Hasao and Manipur's Tamenglong districts during their 22,000km long flight from their home turf in northern China and south-eastern Siberia to south and east African coasts and they complete this incredible journey twice each year.

CONSERVATION EFFORTS

- It is protected under the Wildlife Protection Act 1972 and included under its Schedule IV.
- Hunting of the birds or possessing its meat is punishable with imprisonment up to three years or a fine upto 25,000 or with bonds.
- In 2018, the forest department started a conservation programme by radio-tagging the birds to study their migratory route.
- IUCN status: Least Concern.

PERSONALITY IN NEWS

MALATI MEM AKA MANGRI

- She is remembered as one of the first woman martyrs of Assam in India's freedom struggle.
- She is one of the leading members of anti-opium campaign in tea gardens of Assam.
- In, she was killed for leading a fight against foreign liquor and opium pushed during the colonial period.
- Values: Determination, courage etc.

PLACES IN NEWS

LIBYA

Capital: Tripoli

Political boundaries

Location: North Africa.

Bordered by: Egypt, Sudan, Niger, Chad, Tunisia and Algeria.

GEOGRAPHICAL FEATURES

Major physical features are:

Nafūsa Plateau and the Al-Jifārah Gefara Plain, Akhar Mountains Green Mountains , Saharan plateau.

There are no permanent rivers in Libya. Numerous wadis that drain uplands are filled by flash floods during the rains.

Highest Point: Bikku Bitti



AGUMBE FOREST

- The amount of rainfall received in Agumbe has reduced as compared to the other towns in the region.
- Agumbe is in the Shivamogga district of Karnataka and referred as Cherrapunji of South India.
- It is situated at an elevation of meters within Central Western Ghats and has a distinctive tract of tropical moist evergreen forest.
- It is also located adjacent to the Someshwara Wildlife Sanctuary and the Kudremukh National Park.
- It is the world's only natural habitat of the King Cobra and referred as The Cobra Capital.

TUNGARESHWAR WILDLIFE SANCTUARY

- Tungareshwar Sanctuary is situated in the Vasai-Virar area of the Thane district, Maharashtra.
- Spread over several sq.km, it forms a corridor between Sanjay Gandhi National Park also known as Borivali National Park and Tansa Wildlife Sanctuary.
- It is home to famous Tungareshwar Temple, dedicated to Lord Shiva.
- The sanctuary s diverse habitats including littoral forests and hills, which are home to leopards, wild boars, barking deer, langurs, bonnet and rhesus macaques, among other animals.
- Sanctuary is home to numerous birds including the Crested Serpent-eagle, Jungle Owlet, White-eyed Buzzard, Oriental Honey-buzzard, Emerald Dove and Heart-spotted Woodpecker.

MITHUN

- Food Safety and Standards Authority of India has recognised the Mithun Bos frontalis as a food animal.
- Food Animals are those that are raised and used for food production or consumption by humans.

ABOUT MITHUN

- Species: Ruminant species of Bovidae family.
- Habitat: Arunachal Pradesh, Nagaland, Manipur, and Mizoram.
- Also found in parts of Bangladesh, Myanmar, and Bhutan.
- State animal: of both Arunachal Pradesh

and Nagaland.

- Similar to that of Gaur Indian bison but are smaller in size.

NARI ADALATS

- Nari Adalat is a component of the Sambal sub-scheme, which falls under the jurisdiction of the Ministry of Women and Child Development.
- The primary objectives of Mission Shakti encompass enhancing the safety, security, and empowerment of women.
- Nari Adalat serves as an alternative mechanism for addressing grievances of minor nature (such as harassment or infringements on women's rights) encountered by women at the Gram Panchayat level.
- This platform plays a role in engaging with the public to raise awareness, gather input for enhancing women-centric programs, and ensure efficient public service delivery.



STATUE OF ONENESS

- Madhya Pradesh government unveiled a 108-foot-tall statue Adi Shankaracharya in Omkareshwar and named it as Statue of Oneness.
- Adi Shankaracharya, also known as Jagadguru, was the founder of Advaita Vedanta (non-dualism) in 8th century.
- He was born in Kaladi in Kerala. Other statues in India.
- Statue of Unity: Sardar Vallabhbhai Patel at Kevadia in Gujarat.
- Statue of Equality: Vaishnavite Ramanuja in Hyderabad.
- Statue of Peace: Jain monk Acharya Shree Vijay Vallabh Surishwer in Rajasthan.
- Statue of Prosperity: Nadaprabhu Kempegowda, Bengaluru.



INDIA-UN CAPACITY-BUILDING INITIATIVE (IUN-CBI)

- India and UN have launched an IUN-CBI to operationalize development-relevant deliverables of India's G20 Presidency.
- Aim: Share country's best practices with partner countries in the Global South.
- Deliverables: G20 Action Plan for Accelerating Progress on the SDGs, building Digital Public Infrastructure, etc.
- Partner: The UN India team and the Bill & Melinda Gates Foundation will partner to leverage India's Technical and Economic Cooperation platform.
- It will also complement the India-UN Development Partnership Fund (IUN-DPF).
- IU-DPF supports southern-owned and led transformational sustainable development projects across the developing world.

LPSR-FM RADIO BROADCASTING

- LPSR-FM stands for Low Power Small Range FM Radio Broadcasting.
- It is a method of sound broadcasting for limited locations and reception areas using the 88-108 MHz band.
- It is cost-effective and requires minimal infrastructure.
- Applications include drive-in theaters, emergency broadcasting, sports commentary, music concerts, etc.
- TRAI released a consultation paper on this broadcasting method.

AI CHATBOT FOR PM-KISAN SCHEME

- The first AI Chatbot integrated with a major flagship scheme of the Union government.
- Developed with the support of EKstep foundation and Bhashini.
- Helps beneficiaries access scheme information, check application status, payment details, and resolve grievances.
- Offers multilingual support to beneficiaries.



EPHEMERALS

- Certain plant species that bloom only during the monsoon.
- Examples include ground orchids, lilies, and wild yam.
- They provide nectar and pollen for native pollinators, preserving the ecosystem.
- Ephemerals can be annual (short-lived, produce seeds for the next year) or perennial (same individual with newly formed parts).

NILGIRI TAHR

- The only mountain ungulate in southern India, endemic to the Western Ghats.
- State animal of Tamil Nadu.
- Threats include habitat loss and hunting.
- The largest population can be found in the Eravikulam National Park.
- Conservation status: Endangered according to IUCN and listed under Schedule I of the Wildlife (Protection) Act of India.



VEERANGANA DURGAVATI TIGER RESERVE

- Notified as the 7th Tiger Reserve in Madhya Pradesh and the 54th in India.
- Located approximately 20 kilometers from Bhopal and spans three districts.
- It includes the Nauradehi Wildlife Sanctuary and Durgavati Wildlife Sanctuary.
- Some parts fall under the Narmada and Yamuna River basins.
- It is governed by the National Tiger

- Conservation Authority.

ARTIFICIAL REEF (AR)

- Promoted under the Pradhan Mantri Matsya Sampada Yojana for coastal fisheries.
- ARs are technology interventions to rehabilitate or improve natural habitats in aquatic environments.
- Advantages include reducing wave damage on coasts, enhancing marine ecosystems, supporting eco-tourism, and reducing conflicts.
- ARs also restrict bottom trawling in nearshore areas.

STATE OF THE RHINO 2023 REPORT

Founded as International Black Rhino Foundation in 1991 IRF is now dedicated to survival of all five living rhino species.

KEY FINDINGS

- Greater one-horned rhino aka Indian rhino population in India and Nepal continues to grow due to strong protection, wildlife crime law enforcement and habitat expansion.
- Black rhino populations are increasing despite constant poaching pressure.
- Population of white rhinos and sumatran rhinos are decreasing.

ABOUT RHINO

- There are five species of rhino.
- Out of them, three rhino species are found in Asia namely Sumatran rhino, Javan rhino and Indian rhino.

- Asian rhinos are excellent swimmers and can easily swim across rivers.
- Indian rhino is largest of all rhino species and commonly found in India ; Assam, West Bengal and Uttar Pradesh , Nepal, Bhutan, and Pakistan.
- Indian rhino is protected under Schedule I of Wildlife Protection Act, 1972.
- Threat: Habitat loss, poaching for rhino horn and climate change.

RHINO CONSERVATION INITIATIVES

- National Rhino Conservation Strategy 2019 to conserve Indian rhinoceros.
- New Delhi Declaration on Asian Rhinos 2019.
- Indian Rhino Vision 2020 is a joint program of Assam Forest Department, World Wide Fund for Nature-India (WWF-India) IRF to increase rhino populations.

NOBEL PEACE PRIZE, 2023

- The Nobel Peace Prize for 2023 has been awarded to Narges Mohammadi for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all.
- Ms. Mohammadi, has kept up her activism despite numerous arrests by Iranian authorities and spending years behind bars. She has remained a leading light for nation-wide, women-led protests, sparked by the death last year of a 22-year-old woman in police custody.



The Norwegian Nobel Committee has awarded the Peace Prize to those working to advance social justice, human rights, and democracy which are important preconditions for lasting peace, since it's inception.

ABOUT THE NOBEL PEACE PRIZE

The Nobel Peace Prize is an international peace prize established according to Alfred Nobel's will that is awarded annually on December 10th.

MAHARAJ DODAN



- Assam's Chief Minister, Himanta Biswa Sarma on October 6 unveiled the mascot for the state's grand sporting event, 'Khel Maharan' and introduced 'Maharaj Dodan' to the world.
- Blessed with immense physical prowess, Maharaj Dodan is believed to be the forefather of the Rabha tribe, a

nephew of Maharaj Bana and related to Devi Usha as mentioned in the Mahabharata.



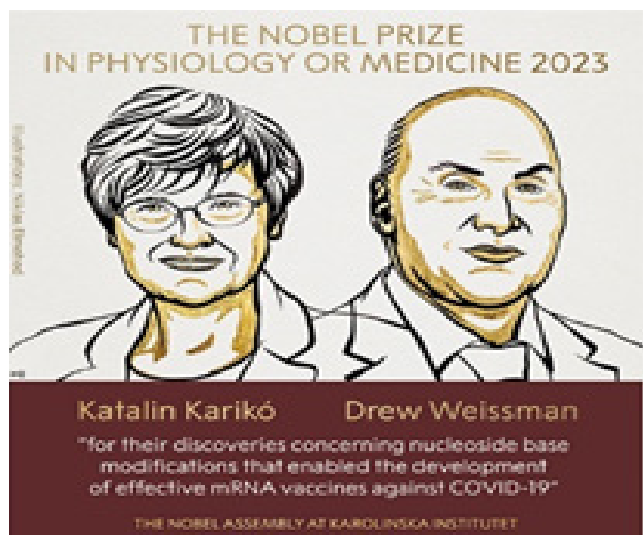
ABOUT KHEL MAHARAN

- 'Khel Maharan' is a part of the larger 'Jan Bhagidari' initiative, aimed at fostering greater public participation. The other three programs within this initiative are 'Amrit Briksha Andolan', a mega plantation drive that has concluded, the ongoing 'Amrit Kalash Yatra' and the soon-to-be-launched 'Sanskritik Mahasangram' in the cultural field.
- The sporting talent will be identified at various levels. Teams will initially form at the village level, with the best players advancing to the gaon panchayat/ward level teams. From there, they will join the assembly constituency-level teams before progressing to the district-level teams for state-level competitions.



- Khel Maharan' serves as a significant platform for talent identification while engaging the youth in positive and constructive activities. Chief Minister of Assam underlined the government's commitment to keeping the youth away from negative influences by fostering their participation in such initiatives .

NOBEL PRIZE IN MEDICINE



- Katalin Karikó and Drew Weissman were awarded the Nobel Prize in Medicine or Physiology in 2023 for their groundbreaking contributions to mRNA technology.
- Their discoveries, particularly in the modification of nucleosides in messenger RNA (mRNA), were instrumental in overcoming challenges associated with the use of mRNA for therapeutic purposes, such as vaccine development.
- One notable challenge addressed by Karikó and Weissman was the body's natural response to foreign materials, which could trigger inflammation. Their modifications to nucleosides helped mitigate this response, enhancing the efficacy of mRNA-based therapies and vaccines.
- These groundbreaking advancements by

Katalin Karikó and Drew Weissman laid the groundwork for the development of mRNA vaccines, including those pivotal in addressing the COVID-19 pandemic. The increased stability and reduced immunogenicity resulting from their work were crucial components in the successful creation of vaccines such as the Pfizer-BioNTech and Moderna COVID-19 vaccines.

SELA TUNNEL

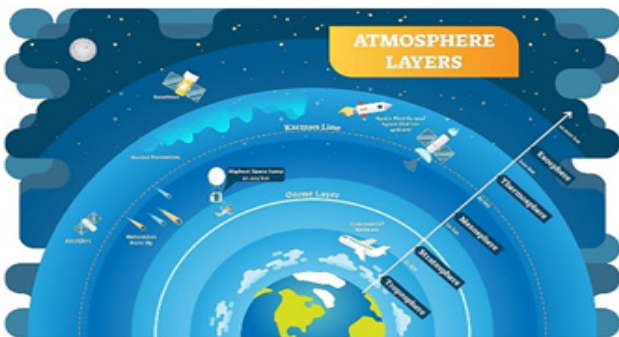
- Prime Minister Narendra Modi recently laid the foundation stone for the strategically important Sela Tunnel Project in Arunachal Pradesh.
- The project, costing Rs 687 crore, is being constructed by the Border Roads Organisation (BRO) and would be completed in the next three years.

SIGNIFICANCE OF THE PROJECT

- Once the 12.04-km tunnel is complete it will give a fillip to the overall development of the area as it will provide all-weather connectivity to Tawang and other areas.
- It will also reduce the travelling time from Tezpur to Tawang by more than an hour and boost tourism and related economic activities in the region.
- Need: Till now, the entry to the area was only through the 13,700-feet Sela Pass, which is covered in snow in the winters making the movement of vehicles difficult.

KARMAN LINE

- The Karman line is a proposed conventional boundary between Earth's atmosphere and outer space, set at an altitude of 100 kilometers (62 miles) above mean sea level by the international record-keeping body FAI (Fédération Aéronautique Internationale).
- This boundary has no particular physical meaning, as there is no noticeable change in the characteristics of the atmosphere across it, but it is important for legal and regulatory purposes, as aircraft and spacecraft are subject to different jurisdictions and legislations.
- It is accepted by the FAI as the border between the Earth's atmosphere and outer space.



SAMPRII-XI

- SAMPRII-XI is the 11th edition of the annual joint military exercise between India and Bangladesh.
- The exercise is organized alternately by both countries and aims to enhance interoperability, share tactical drills, and promote best practices.
- The exercise aims to foster deeper bilateral relations, cultural understanding, and mutual benefits arising from shared

experiences in Sub-Conventional Operations.

- The exercise concluded successfully on October 16, 2023.



NOBEL PRIZE IN ECONOMICS



CLAUDIA GOLDIN, Professor of Economics at Harvard University has won the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2023- popularly referred to as the Nobel Prize in Economics.

- She received this award for her research to increase people's understanding of women's labor market outcomes.
- Goldin has been a pioneer in studying the role of women in the economy and has written several books on the topic, such as UNDERSTANDING THE GENDER GAP: AN ECONOMIC HISTORY

OF AFRICAN WOMEN (1990) and CAREER AND FAMILY: WOMEN'S CENTURY-LONG JOURNEY TOWARDS EQUITY.

PROJECT UDBHAV



The project has been launched during inauguration of Indian Military Heritage Festival.

ABOUT PROJECT UDBHAV

- It is a collaborative project between the Indian Army and the United Service Institution of India, a think tank.
- Objective – To synthesize ancient wisdom with contemporary military practices for modern security challenges.
- The ancient Indian Knowledge System related with war includes Chanakya's Arthashastra (strategic partnership, diplomacy, soft power projections, etc.) and Thirukkural (Ethical conduct in warfare).

NOBEL PRIZE IN LITERATURE



- The recipient of the 2023 Nobel Prize in literature is Jon Fosse, a Norwegian author, "for his innovative plays and prose which give voice to the unsayable", as said by the Swedish Academy.
- His latest book, Septology, a semi-autobiographical magnum opus — seven parts spread across three volumes — runs to 1,250 pages without a single full stop. The third volume was shortlisted for the 2022 International Booker Prize.

ABOUT NOBEL PRIZE IN LITERATURE

- The Nobel Prize in Literature is a Swedish literature prize that is awarded annually to an author from any country who has produced the most outstanding work in an idealistic direction.
- The award is based on an author's body of work as a whole and the Swedish Academy decides who, if anyone, will receive the prize.
- The Nobel Prize in Literature has been awarded 116 times to 120 Nobel Prize laureates between 1901 and 2023.

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