

CURRENT AFFAIRS

WEEKLY

WEEK: 3

NOVEMBER
2022

MAINS

GS-II

- POCSO NOT MEANT TO CRIMINALISE CONSENSUAL RELATIONSHIPS: DELHI HC
- POWER TO GRANT REMISSION VS. PARDONING BETWEEN CENTRE AND STATE
- RISING CONFLICT AMONG THE ROLES OF CHIEF MINISTER AND THE GOVERNOR IN A STATE
- STRATEGY TO MAKE SCHOOL EDUCATION A BOON VIA COMMUNITY PARTICIPATION
- FREEDOM OF SPEECH OF PUBLIC FUNCTIONARIES VS. MAINTAINING DIGNITY OF THE OFFICE

GS-III

- EXCLUSIVE ECONOMIC ZONE AND INDIA'S MARITIME GOVERNANCE
- FOCUS ON INDIA'S URBAN INFRASTRUCTURE
- NEED FOR A SINGLE GST RATE
- SEBI ON STRENGTHENING OF MIIS
- CAN INDIA SEIZE THE DEMOGRAPHIC ADVANTAGE?
- WHY THE OLD PENSION SCHEME IS A BAD ECONOMICS?
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- INDIA, CHINA, BRAZIL, SOUTH AFRICA OPPOSES THE 'CARBON BORDER TAX' AT COP27

PRELIMS

ECONOMY

- India-U.S. CEO forum to further strengthen bilateral economic ties

ENVIRONMENT

- Satellite based methane Alert and Response System

SCIENCE & TECHNOLOGY

- ISRO's cryogenic engine, indigenously developed for LVM3 passes the test
- India got its first national repository for life science data
- Reversal of type-2 diabetes in young people without medication

MISCELLANEOUS

- Third edition of the 'No Money For Terror' conference to be hosted by India

QUICK BYTES

- Testing methods in Pashmina flags presence of 'Shahtoosh'
- Jivatram Bhagwandas Kripalani (Acharya Kripalani)
- SC issues notice to HCs over 'Gram Nyayalayas'
- Metal-munching microbes help the rare, toxic element tellurium circulate in the environment
- Nine new Countries Join GOWA
- "In our LiFEtime" Campaign launched by India
- Climate Change Performance Index 2023
- 2022 Summit of LeadIT
- NFRA brings out norms for inspecting audit firms
- IFSCA signs MoU with RBI in the field of regulation, supervision of regulated entities

SPECIAL

- Assessing G20's event in Bali

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— **Disclaimer** —

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

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

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SECTION: A
(MAINS)

CURRENT AFFAIRS

POCSO NOT MEANT TO CRIMINALISE CONSENSUAL RELATIONSHIPS: DELHI HC

CONTEXT:

In a Judgement by the Delhi High Court, it has remarked that the intention of the Protection of Children from Sexual Offences (POCSO) Act was to protect children below the age of 18 from sexual exploitation and not to criminalise consensual relationships between young adults.

◎ ABOUT

- The POCSO Act, 2012 was enacted to safeguard the children's interests and to protect them from sexual offences.
- The act is gender-neutral and recognizes both girls and a boy as a victim of sexual violence.
- This law defines a child as any person below the age of 18 years.
- Forms of sexual offence: It defines different forms of sexual offences including;
 - ▶ Penetrative and non-penetrative assault
 - ▶ Sexual harassment
 - ▶ Pornography

What is the issue?

- **Difficult situation for young couples:** Since the consent of a "child" is immaterial, consensual sexual intercourse with or among adolescents is treated on **par with rape**. However, with this, a number of young couples in consensual and non-exploitative relationships have found themselves embroiled in the criminal justice system.
- **Burdens judiciary:** It also impacts the delivery of justice as these cases constitute a large burden on our courts.
- **Diversion from needy cases:** It diverts attention from **investigation and prosecution** of actual cases of child sexual abuse and exploitation.

There is thus a compelling need for law reform to revise the **age of consent** and prevent the criminalization of **older adolescents** engaging in factually **consensual and non-exploitative** acts.

Few Other Interpretations:

- Other than Delhi High Court, **Punjab and Haryana High Court** has also seen the issue of age of consent as a cause of unusual arrest of the older adolescents as accused of Rape.
- **Karnataka High Court** quashed the criminal proceedings under IPC and observed that if the court would shut its doors to the couple who are married then the entire proceedings would result in a "**miscarriage of justice**".

What is the purpose of the 'Minimum Age' of sexual consent?

- **To protect:** The objective of the minimum age of sexual consent is to protect adolescents from sexual abuse. There is a possibility that young adolescents may be lured into sexual activity by older adults making those from disadvantaged settings.
- **Consequences of early sexual activity**
 - ▶ impact on their rights and development
 - ▶ a number of risks in relation to sexual and reproductive health (unwanted or early pregnancy and exposure to sexually transmitted diseases)
 - ▶ impact on education, especially girls

What are the options available to victims in such matters?

- The only relief available to the couple is to urge the **High Court** to quash the case by using its inherent power under **Section 482** of the **Criminal Procedure Code**, "to prevent abuse of the process of any Court or otherwise to secure the ends of justice.

Provisions of the laws relevant to the situation:

- **7 years:** Indian laws do not consider any action by a child **under the age of 7** as an offence.
- **7-12 years:** Even if the child is **between the ages of 7 and 12**, but has not attained sufficient maturity to judge the nature and consequences of his conduct, his act would not be considered an offence.
- **After 12 years:** After that, it is implied that a **child above 12 years of age develops a sufficient understanding of the implications of an offence.**

Changing scenario:

- With the changing sociocultural scenario, the assumption of attaining maturity may also be applied in cases of granting "**free consent**".
- One has to note here, that the Child Labour (Prohibition and Regulation) Act defines a child as a person under **the age of 14**, and, therefore, those above 14 can legally be employed in otherwise prohibited occupations and processes.

Global Scenario:

- Many countries have **16 years** or below that as the age of consent.
- Most of the American states, Europe, Japan, Canada, Australia, China, and Russia fall into this category.
- Therefore, the rights of the child (**up to 18 years of age**) might be protected in accordance with the UN Convention on the Rights of the Child, but the age of consent can safely be reduced from **18 to 16**.

POWER TO GRANT REMISSION VS. PARDONING BETWEEN CENTRE AND STATE

CONTEXT:

In the latest order of the Supreme Court (under Article 142) for the immediate release of convicts in the Rajiv Gandhi assassination case, one major issue of "delay by the Governor" has been highlighted.

Scope of power to grant Pardoning vs. Remission:

- Both the **President and the Governor** have been vested with **sovereign power of pardon** by the Constitution, commonly referred to as '**mercy**' or '**clemency power**'.

The terms:

- **Remission:** In remission, the nature of the sentence is remained untouched; **while the duration is reduced** i.e. the rest of the sentence need not be undergone. For example, if a person is sentenced to a term of **20 years**, his sentence is now reduced to **15 years**.
- **Pardon:** Means to absolve from the consequences of a fault or crime and to allow (an offense) to pass without punishment or to forgive.

- Under **Article 72**, the **President** can **grant pardons, reprieves, respites or remissions of punishment or suspend, remit or commute the sentence** of any person convicted of any offence in all cases where the punishment or sentence is by a court-martial.

- Under **Article 161**, a **Governor** can grant pardons, reprieves, respites or remissions of punishment, or suspend, remit or commute the sentence of anyone convicted under any law on a matter which comes under the State's executive power.
- Article 163** requires the Governor to exercise his/her *functions* on the **aid and advice of the Council of Ministers**. Therefore, the Governor is mandated to act on this advice, being the nominal Executive Head of the State.

What does the Constitution say?

- For President vs. Governor:** The President, under **Article 72** of the Constitution, could consider a claim for pardon or remission, and not the **State Governor**, if the offence involved was based on a parliamentary law.
- For Supreme Court vs. High Court:** In the Constitution of India, 1950; Article 226 - Code of Criminal Procedure, 1973; Section 432 - Judicial Review - Appeal against the High Court judgment which allowed the request for remission itself on the premise that it is covered by the policy - It was not within the domain of judicial review for the learned judge to have himself exercised the power of remission.

RISING CONFLICT AMONG THE ROLES OF CHIEF MINISTER AND THE GOVERNOR IN A STATE

CONTEXT:

With the rise in instances of stand-offs between State governments and Governors, there is once again a debate on the role and conduct of Governors, the relation of Governors with the Centre and State government, and whether Chief Ministers should have a say in the appointment of Governors in their respective States.

- So, let us answer these questions briefly.

◎ ABOUT

What are the roles and responsibilities of a Governor? What is the significance of the post?

- The Governor is essentially a link between the **Centre and the States**.
- The Governor has various functions, such as addressing the joint session of the Assembly and the Budget session, and signing Bills that have been passed by the Assembly.
- The Governor has both **administrative** and **political functions** to perform.

What do the Constitutional provisions say regarding appointment of the Governor?

- The appointment and powers of government can be derived from **Part VI** of the Indian constitution.
- Article 153** says that there shall be a Governor for each State. One person can be appointed as Governor for two or more States.
- As per **Article 155** of the Constitution, the Governor is appointed by the '**President**'.
- The governor acts in '**Dual Capacity**' as the Constitutional head of the state and as the representative.
- He is the part of federal system of Indian polity and acts as a bridge between union and state governments.
- Article 157 and Article 158** of the Constitution of India specify eligibility requirements for the post of governor. They say as governor must:
 - Be a citizen of India.
 - Be at least 35 years of age.
 - Not be a member of the either house of the parliament or house of the state legislature.
 - Not hold any office of profit.
- The term of governor's office is **normally 5 years** but it can be terminated earlier by:

- ▶ Dismissal by the president on the advice of the council of minister headed by the prime minister of the country.
- ▶ Dismissal of governors without a valid reason is not permitted. However, it is the duty of the President to dismiss a governor whose acts are upheld by courts as unconstitutional and malafide.
- ▶ Resignation by the governor.
- ▶ **Does the Chief Minister have a 'say' in appointing a Governor?**
- No, there is nowhere any procedure mentioned to involve Chief Minister in the appointment of the governor.
- Due to its colonial legacy, this provision is not included so as to preserve the powers in single hands.

Implications associated:

Consequences	Leads to
<ul style="list-style-type: none"> • Non-demarcation of powers and effects state machinery. • Make appointments of Governor more political • Other officials also impacted leading to single party domination in the State functioning. 	<ul style="list-style-type: none"> • Conflict between Governor and the Chief Minister. • Overruled decisions by the Governor. • Non-cooperating Council of Ministers. • More political appointments rather than based on calibre.

STRATEGY TO MAKE SCHOOL EDUCATION A BOON VIA COMMUNITY PARTICIPATION

CONTEXT:

India's goal to achieve universal Foundational Literacy and Numeracy in all primary schools must be based on state-wise targets and should involve local community participation.

Need for the reforms:

- Under number of attempts by the **State governments & the Centre** to promote the involvement of local community in primary education was done using several schemes to incentivise education in schools, teacher training sessions and many more.
- But we still are unable to find a systemic way of recruiting good teachers and establishing teacher development institutions.

Recent initiatives based on community and teacher engagement

- **The Shiksha Karmi Project:** was started in 1987 for schools to tackle **teacher absenteeism** in remote villages in Rajasthan. Active involvement of the local communities was a crucial part of the project. By supporting and training local persons, the project succeeded in creating teachers.
- **The Bihar Education Project** was introduced in the early 1990s to support the universalisation of primary education. It developed a **10-day residential in-service** training for teachers, called the '**Ujala module**'.
- **The Lok Jumbish** was launched in **1992 in Rajasthan** which aims to provide a thrust to **innovations and emphasising civil society partnership**, this programme demonstrated successes, especially in **tribal districts**.
- The **Unni Krishnan v. State Of Andhra Pradesh** states that the right to education for children up to age 14 is central and fundamental.
- The **District Primary Education Programme** was started in 1994, to universalise and transform the quality of primary education.

- **Sarva Shiksha Abhiyan**, aimed at the **universalisation of elementary education**, was launched in 2001. While it has made a difference to school participation and has brought about improvement in school infrastructure, uniforms, toilet access, water and textbook availability, classroom processes still remain a challenge.
- 100% FDI (automatic route) is allowed in the education sector in India.



Challenges associated:

- **Infrastructure deficit:** Dilapidated structures, single-room schools, lack of drinking water facilities, separate toilets and other educational infrastructure is a grave problem.
- **Corruption and leakages:** The transfer of funds from the central to state to local governments to school leads to involvement of many intermediaries.
- High rates of corruption and leakages plague the system, undermine its legitimacy and harm the many officials.
- **Quality of Teachers:** Lack of well trained, skilled and knowledgeable teachers which provide the foundation for a high quality education system.
- **Non-Academic burden:** A study by the National Institute of Education Planning and Administration (NIEPA) revealed that teachers spend only around **19 percent of their time teaching** while the rest is spent mostly on non-teaching administrative work.
- **Poor salary:** Teachers are paid miserly salaries which affect their interest and dedication to work. They will look for other avenues like tuitions or coaching centres and coax the students to attend it.
- **Teacher Absenteeism:** Absence of teachers during school hours is rampant. The lack of accountability and poor governance structures add to the woes.
- **Lack of Accountability:** School Management Committees are largely dysfunctional. Many exist solely on paper.
 - ▶ Parents are often not aware of their rights and if they are it is difficult for them to make their voice heard.
- **High drop-out rates:** The drop-out rates in schools, especially girls, is very high.
 - ▶ Many factors like poverty, patriarchal mind-set, lack of toilets in schools, distance to schools and cultural elements lead to children dropping out from education.

◎ WAY FORWARD:

- There is further need to work on community connect and parental involvement.
- Panchayats and community collectives with very high social capital, such as women self-help groups, can help ensure that local households own the initiative.
- The Central, State and local governments need to transform governance to ensure that everyone delivers their best.

FREEDOM OF SPEECH OF PUBLIC FUNCTIONARIES VS. MAINTAINING DIGNITY OF THE OFFICE

CONTEXT:

The Supreme Court (SC) reserved its judgment on whether free speech by public functionaries, including inter alia ministers, MLAs, MPs, should have greater restrictions than those imposed by Article 19 (2).

◎ BACKGROUND

- There has been a significant increase in hate speeches by public functionaries and referred to an incident where the President was being mocked by a minister.
- Almost 500% rise in reported Hate speech cases against politicians and public functionaries since 2014.

Key-points highlighted by the Bench

Bench: Five-Judge Constitution Bench- Justices S A Nazeer, B R Gavai, A S Bopanna, V Ramasubramanian and B V Nagarathna.

- **Self-restriction:** People holding **public office** should exercise **self-restriction** and not blabber things which are disparaging or insulting to other countrymen.
- **No need for separate code:** This approach is part of our constitutional culture and there is no need for it to formulate a code of conduct for public functionaries.
- **Civil remedy:** There is always a civil remedy available to citizens on account of a public functionary making a speech that affects someone.
- **Constitutional culture:** Irrespective of what **Article 19(2)** may say, there is a **constitutional culture** in the country where there is an **inherent limitation** or a restriction on what people holding responsible positions say.

Article 19 (2) relates to the powers of the State to make laws imposing reasonable restrictions on the exercise of the right to freedom of speech and expression in the interest of sovereignty and integrity of the country, public order, decency, morality etc.

What does the 'Constitutional Limitation' means?

- The original purpose of establishing **formal or constitutional limits** on government was to check the arbitrary actions of hereditary monarchs or rulers who abused their power, imposed unwanted taxes, or launched unpopular wars.
- In this case it relates to the '**duty based order**' amongst the people in **higher position** and a responsibility towards a welfare society.

Hate Speech and Law:

Meaning: According to the **267th Report** of the **Law Commission of India**, Hate Speech is stated as an incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief, and the like.

Important Provisions: Under the existing laws, neither hate speech has been defined, nor is there any specific provision to curb it. Police take recourse to **Sections 153(A) and 295(A)** to tackle it.

- **Section 153A IPC** penalizes 'the promotion of enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony.
- **Section 295(A)** of the Indian Penal Code (IPC) punishes any speech, writings, or signs that "with premeditated and malicious intent" insult citizens' religion or religious beliefs with a fine and imprisonment for up to three years.

Is controlling freedom of Speech of officials against Constitutional Provision?

- No, according to the Apex Court, the **Fundamental right for freedom of speech** is exposed to reasonable restrictions based on '**Public order**' and '**Security of the Nation**'.

What is the difference between hate speech and freedom of speech?

- The Indian Constitution, under **Article 19(1)(a)** provides the right to freedom of speech and expression.
- However, under **Article 19(2)**, the constitution also provides for the '**reasonable restrictions**' against free speech in the interests of sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.

Hate speech is considered a reasonable restriction on freedom of speech and expression.

EXCLUSIVE ECONOMIC ZONE AND INDIA'S MARITIME GOVERNANCE

CONTEXT:

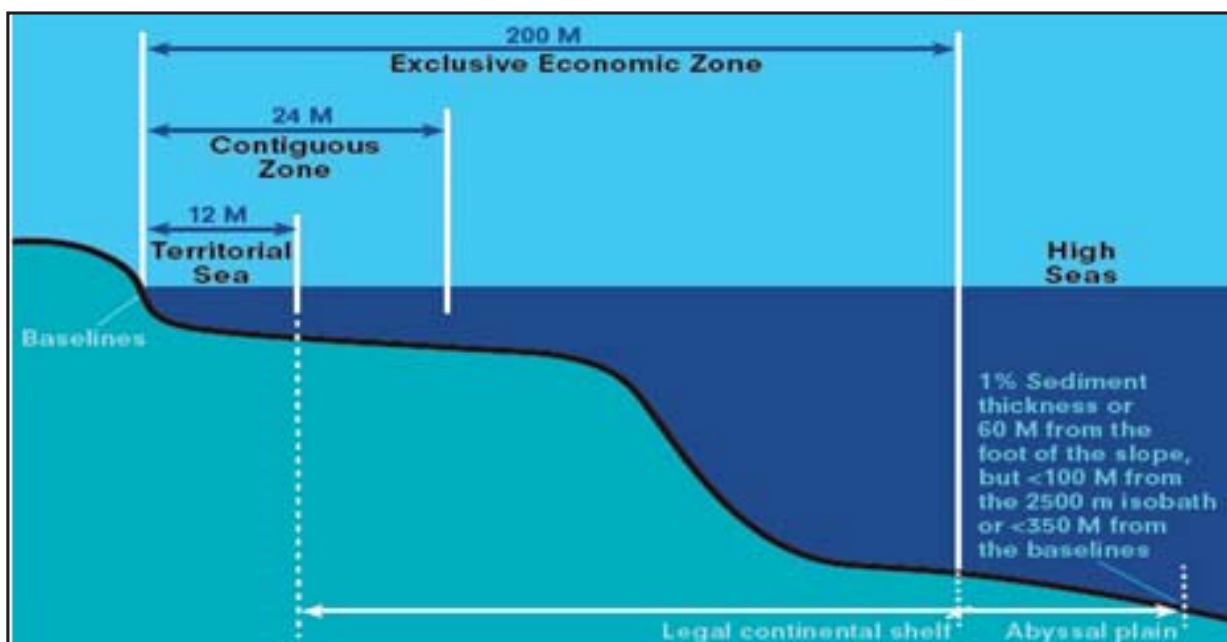
According to the Indian Navy, more than 200 Chinese fishing vessels have been monitored in the Indian Ocean in the year 2022, which further highlights the illegal, unreported and unregulated (IUU) activities to continue rising beyond India's Exclusive Economic Zone (EEZ).

What is an Exclusive Economic Zone (EEZ)?

- The EEZ is an area that is adjacent to and beyond the territorial sea. It can extend to a **maximum of 200 nautical miles from the baseline**.
 - ▶ The baseline is normally measured is the low-water line along the coast as indicated on large-scale charts officially approved by the coastal state.
- The EEZ does not include the territorial sea and also does not include the **continental shelf beyond 200 nautical miles**.

Activities allowed in EEZ:-

- creation and use of artificial islands
- Installations and structures
- Marine scientific research
- protection and preservation of the marine environment



Threats for India

- **India territory with huge coastline** is vulnerable to the threats emerging from maritime domain.
- **Maritime terrorism** (Mumbai attack of 26/11)
- **China** is rising, emerging as a serious challenger.
- **Other issues:** Piracy, Terrorism, Illegal migration, Transnational Organised crimes, Environmental Concern

Governance of coastal security:

Currently, coastal security of India is governed by a three-tiered structure.

- **Indian Navy** patrols the **International Maritime Boundary Line (IMBL)**
- **Indian Coastal Guard** is mandated to do patrolling and surveillance up to **200 nautical miles (i.e., EEZ)**.
- **State Coastal/Marine Police (SC/MP)** performs boat patrolling in **shallow coastal areas (12 nautical miles)**.

Why maritime security is important for India?

- **Water for trade:** India's major import and exports is carried out through the maritime water, thus enhancing the importance of securing coastlines is imperative of economic growth.
- **Maritime threats:** India's huge coastlines, around 7000km, increases the vulnerability to maritime threats as testified by **26/11 Mumbai attacks**.
- **Blue economy:** One of the major economic activities of the coastal states of India, comprising around 4% of the Indian economy, with an immense future potential.
- **Strategic Factor:** Increasing Chinese influence and assertiveness in the Indian Ocean Region providing a potential threat to the India's regional interest.
- **Ocean resource security and management of resources.**

Mechanism available for combating maritime security:

- **United Nations Convention on the Law of the Sea (UNCLOS)** provides a framework regarding rights and responsibility of the nations over international waters.
- **SAGAR (Security and Growth for All in the Region) Doctrine:** Indian initiative, aims to deepen the economic and security cooperation with its maritime neighbours, along with enhancing their security capabilities.
- **Indo-Pacific Oceans' Initiative (IPOI)**
- **QUAD initiative** to ensure safe, secure and free Indo-Pacific region.

FOCUS ON INDIA'S URBAN INFRASTRUCTURE

CONTEXT:

Recently, a report by World Bank has estimated that India will need to invest about \$840 billion over the next 15 years into urban infrastructure to meet the needs of its fast-growing urban population.

Report: "*Financing India's Urban Infrastructure Needs: Constraints to Commercial Financing and Prospects for Policy Action*"

Present Statistics: (India specific)

- **Most Urbanized States:** Tamil Nadu 43.9%; Maharashtra 42.4%; Gujarat 37.4%
- 3 out of **world's 21 mega cities:** Mumbai (19 mill); Delhi (15 mill); Kolkata (14 mill)

- **Large Cities:** 23 in 1991; 40 in 2001
- **Urban Population:** 25% of 850 mill in 1992; 28% of 1,030 million in 2002.
- **Estimated Urban Pop:** 600 million by 2026
- **% of Urban Residents who are Poor:** About 25%
- **Slum Population:** About 41 million in 2001

Key Points of the Report:

- About **600 million people** will be living in urban cities in India, representing 40 percent of the population by **2026**.
- This is likely to put **additional pressure** on the already stretched urban infrastructure and services of Indian cities.
- There will be a burden of more demand for **clean drinking water, reliable power supply, efficient and safe road transport** amongst others.
- Currently, the central and state governments finance over **75 percent** of city infrastructure, while **urban local bodies (ULB)** finance **15 percent** through their own **surplus revenues**.
- **Only 5 percent** of the infrastructure needs of Indian cities are currently being financed through private sources.
- With government's **current (2018) annual urban infrastructure** investments topping at **\$16 billion** will require from the private financing to fill the gaps.

What are the concerns associated with the Urban Infrastructure in India?

Planning:	<ul style="list-style-type: none"> • Many urban governments lack a modern planning framework. • The multiplicity of local bodies obstructs efficient planning and land use. • Rigid master plans and restrictive zoning regulations limit the land available for building, constricting cities' abilities to grow in accordance with changing needs.
Housing:	<ul style="list-style-type: none"> • Building regulations that limit urban density – such as floor space indexes – reduce the number of houses available, thereby pushing up property prices • Policy, planning, and regulation deficiencies lead to a proliferation of slums • Weak finances of urban local bodies and service providers leave them unable to expand the trunk infrastructure that housing developers need to develop new sites.
Service delivery:	<ul style="list-style-type: none"> • Most services are delivered by city governments with unclear lines of accountability • There is a strong bias towards adding physical infrastructure rather than providing financially and environmentally sustainable services.
Infrastructure:	<ul style="list-style-type: none"> • Most urban bodies do not generate the revenues needed to renew infrastructure, nor do they have the creditworthiness to access capital markets for funds • Urban transport planning needs to be more holistic – there is a focus on moving vehicles rather than meeting the needs of the large numbers of people who walk or ride bicycles in India's towns and cities.
Migration:	<ul style="list-style-type: none"> • There is a large population influx to urban centres is causing new cities to emerge and existing ones to expand. This is causing rapid urbanization. Therefore, India needs to develop satellite cities for which the need is of mass-transport systems.

Other Challenges:

- Land Acquisition
- Clearances from numerous agencies
- Environmental Impact Assessment (EIA)
- Poor pre-construction planning

Government Interventions:

- **Smart Cities Mission:** The Smart Cities Mission is a major urban renewal program launched by the Government to develop and upgrade living conditions and infrastructure in selected **100 cities** all over the country.
 - ▶ Objective of the programme is to **modernize cities** by providing core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions.
 - ▶ **Ministry of Urban Development** is the anchoring agency for the implementation of the project.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Project:** Atal Mission for Rejuvenation and Urban Transformation (AMRUT) along with smart cities were jointly planned and launched by the government to transform urban living conditions through infrastructure up gradation.
 - ▶ AMRUT is aimed at transforming **500 cities** and towns into **efficient urban living spaces** over a period of five years.
 - ▶ **Ministry of Urban Development** has selected the five hundred cities with the help of **state governments**.

NEED FOR A SINGLE GST RATE

CONTEXT:

Prime Minister's Economic Advisory Council Chairman pressed upon the need to have single goods and services tax (GST) rate and an exemption-less tax regime.

KEY CONCERNS RAISED:**Differential Tax Rates:**

- Some demerit and luxury goods, which comes under 28 percent GST slabs, attract **additional levy of cesses**.
 - ▶ Its proceeds go to a separate fund meant to compensate states for revenue shortfall and repayment of compensation-related loans.
- On the contrary, those of mass consumption are done away with or given some exemption.
- As a polity, the GST rates should be the same regardless of the product.

Progressivity in Taxation:

- To introduce progressivity in the tax regime, one may consider doing it by way of direct taxes and not through GST and indirect taxes.

Not meeting the expenditure needs:

- The combined tax collection of the Centre and states is just 15 percent of the GDP
- The requirement for government spending on public infrastructure, education, healthcare, and defense is around 23 percent of the GDP.
- We must be willing to pay tax or we must be willing to settle for reduced delivery of public goods and services.

Exemption-less system:

- More tax exemptions result in a more complicated taxation system.
 - ▶ The average GST rate at present is 11.5 percent instead of 17 percent as estimated before the GST rollout.
 - ▶ The revenue foregone because of exemptions by the government is about 5-5.5 percent of GDP.

About GST

- GST was introduced through the **101st Constitution Amendment Act, of 2016**.
- It was set up by the President as per Article 279A (1) of the amended Constitution.
- It is one of the **biggest indirect tax reforms** in the country.
- It was introduced with the slogan of '**One Nation One Tax**'.
- The GST has subsumed indirect taxes like excise duty, Value Added Tax (VAT), service tax, luxury tax, etc.
- It is essentially a **consumption tax** and is levied at the final consumption point.

Significance of GST:	Issues Associated with GST:
<ul style="list-style-type: none"> • Created a Unified Common Market • Streamlined Taxation • Increased Tax Compliance • Discouraged Tax evasion • Reduced Corruption • Provided Boost to Secondary Sector • Promoted Ease of Doing Business 	<ul style="list-style-type: none"> • Trust Deficit • Nearly half the economy remains outside GST. <ul style="list-style-type: none"> ▶ E.g. petroleum, real estate, and electricity • Complexity of tax filings • Higher Tax Rates • Multiple Tax Rates

SEBI ON STRENGTHENING OF MIIS

CONTEXT:

Recently, a SEBI panel has recommended measures for strengthening the role played by the governing board, committees of stock exchanges with other market infrastructure institutions (MIIs) for countering the loopholes in their functioning.

What are Market Infrastructure Institutions?

- **Stock exchanges, depositories and clearing houses** are all Market Infrastructure Institutions and constitute a key part of the nation's vital economic infrastructure.

Key highlights of the recommendations:

- **Ensure Transparency and Accountability:** After viewing the situation, it has recommended steps to enhance **accountability and transparency** and reviewed the policy on safekeeping and sharing of information held by MIIs.
- **Code of Conduct to be improved:** It also advised to revisit the **code of conduct and code of ethics** for directors of the governing board and **key managerial persons (KMPs)** activities.
- **Working of Boards:** It suggested that to ensure greater independence of the board of the MII, **at least two-third** members of the board of the MII shall comprise of **Public Interest Directors (PIDs)**.
 - ▶ The existing process of appointment of **Public Interest Directors (PIDs), non-independent directors and managing director** should be rationalised by mapping certain expertise to PIDs while maintaining an overall balance of expertise required in the board.

- **Divided among categories:** Under the proposal, the **functions of MIs** should be categorised into **three verticals** –
 - ▶ Critical operations;
 - ▶ Regulatory, compliance and risk management; and
 - ▶ Other functions including business development.
- **Ensure Right to be informed:** In order to enhance transparency, the MIs should disclose the agenda and minutes of meetings of their board, keeping in mind their role as a **'first-level regulator'**.
 - ▶ **Video and audio** recordings of the meetings of the board of the MI should be made mandatory.
- **Assigning higher positions and powers:** The definition of KMPs should be changed to cover employees based on importance of activities carried out by them and their relative hierarchy within the MI. Further, the MI must clearly segregate the roles and responsibilities of such KMPs.

What are the specific institutions in India that qualify as MIs?

- Among stock exchanges, the **SEBI lists seven**, including the BSE, the NSE, the Multi Commodity Exchange of India and the Metropolitan Stock Exchange of India.
- There are **two depositories** — charged with the safekeeping of securities and enabling their trading and transfer — that are tagged MIs:
 - ▶ Central Depository Services Ltd.
 - ▶ National Securities Depository Ltd.
- The regulator also **lists seven clearing houses** including the Multi Commodity Exchange Clearing Corporation. Clearing houses, for their part, help validate and finalise securities trades and ensure that both buyers and sellers honour their obligations.

CAN INDIA SEIZE THE DEMOGRAPHIC ADVANTAGE?

CONTEXT:

There is a need to strategically implement economic and industrial policies to seize the advantage of its burgeoning young workforce.

What is India's Demographic Dividend?

- According to the **United Nations Population Fund (UNFPA)**, a demographic dividend means the economic growth potential that can result from shifts in a population's age structure.
- **Median Age:** The median age in India is 28 years, compared to 38 in China and the US, 43 in Western Europe, and 48 in Japan.
- **Diversity in India's States:** While India is a young country, the status and pace of population aging vary among States.
 - ▶ Southern States, which are advanced in demographic transition, already have a higher percentage of older people.
 - ▶ The differences in age structure reflect differences in the economic development and health of the states.

Important statistics:

- India's working-age population has numerically outstripped its non-working-age population.
- India's total fertility rate (TFR) has declined from 2.2 in 2015-16 to 2.0 in 2019-21 (NFHS-5).
- India will account for 20 per cent of the worldwide increase in the working-age population over the two decades from 2020.

Why there is an urgency for job creation?

- A rapidly growing number of young people.
- India's economy and labour-force are undergoing a structural transformation.
- A significant shift away from agriculture has occurred in job seeking population.
- Rise in migration to seek non-agricultural jobs in towns and cities
- The student population, which is about a quarter of the country's population is waiting to enter the labour market.

How can India take Advantage of the Demographic Dividend?

- **Increase in Fiscal Space:** Fiscal resources can be diverted from spending on children to investing in modern physical and human infrastructure that will increase the economic sustainability of India.
- **Rise in Workforce:** With more than 65% of the working-age population, India can rise as an economic superpower, supplying more than half of Asia's potential workforce over the coming decades.
 - ▶ An increase in the Labour Force enhances the productivity of the economy.

Approach to seize Demographic Advantage:

- **Upgrading Education Standards:** Irrespective of rural or urban settings, the public school system must incorporate skilling, training, and vocational education in line with market demand.
- **Fulfilling Health-Related Requirements:** Increasing government spending on health, education, and other social sectors will be crucial to realizing the potential dividend from India's young demography.
- **Inter-Sectoral Collaborations:** Moving forward towards safeguarding the futures of adolescents, it is imperative to put in place mechanisms for better inter-sectoral collaboration.
- **Bridging Gender Gaps in Workforce:** New skills and opportunities for women and girls befitting their participation in a 3 trillion-dollar economy are urgently needed. This can be done by:
 - ▶ Legally compulsory gender budgeting to analyze gender-disaggregated data and its impact on policies
 - ▶ Increasing childcare benefits
 - ▶ Boosting tax incentives for part-time work
- **Federal Approach for Diverse States:** Inter-ministerial coordination for strategic planning, investment, monitoring, and course correction should be an important feature of this governance arrangement.

◎ CHALLENGES:

- **Low Human Development Parameters:** India ranked 131st position by the United Nations Development Programme (UNDP) Human Development Index 2020, which is alarming
- **Demographic structures are quite different** among states.
- **Dismal health sector**
- **Pan-India Growth strategies do not work**
- **Informal nature of the economy**
- **Jobless Growth**

WHY THE OLD PENSION SCHEME IS A BAD ECONOMICS?

CONTEXT:

The decision of various state governments (Rajasthan, Chhattisgarh and Punjab) to revert to the Old Pension Scheme (OPS) rather than to apply New Pension system has attracted several criticisms and concerns over the economic instability in the States.

◎ **BACKGROUND:**

- The history of the **Indian pension system** dates back to the colonial period of British-India.
- **The Royal Commission on Civil Establishments**, in 1881, first awarded pension benefits to the government employees.
- The Governments of both **Centre and States** fund the Pension of retired officials and Employees working for them **using its revenues**.
- The pension is regarded as **Liability for the Government** which it has to pay using its funds. However, over the last three decades, pension liabilities for the **Centre and states** have jumped manifold.
 - ▶ In 1990-91, the Centre’s pension bill was Rs.3, 272 crore, and the outgo for all states put together was Rs.3, 131 crore.
 - ▶ By 2020-21, the Centre’s bill had jumped 58 times to Rs.1, 90,886 crore; for states, it had shot up 125 times to Rs.3, 86,001 crore.
- This has made a compulsion to use a sustainable method of financing Pensions to employees for both Centre and the States.

◎ **ABOUT**

How Pension system works in India?

- All pension plans in India provide guaranteed **maturity benefit**. This is the reason why pension plans in India are also known as **guaranteed pension plans**.
- The maturity benefits are generally the fund value or 101% of Premium paid, whichever is higher.

The Old vs. New Pension scheme:

Old pension Scheme (OPS)	New Pension Scheme
<ul style="list-style-type: none"> ● The OPS is an assured inflation-indexed monthly family pension till you (and your spouse) live(s). ● The OPS level is linked to the last pay pensioner drew. 	<ul style="list-style-type: none"> ● The NPS is a retirement savings scheme to secure the life of an individual financially after retirement. ● Its value is determined by the market prices in which the corpus is invested.

Concerns associated with the Old pension scheme:

- **The pension liability remained unfunded:** as there was no corpus specifically for pension, which would grow continuously and could be dipped into for payments.
- **No fixed source of funding:** The Government of India budget provided for pensions every year; there was no clear plan on how to pay year after year in the future.
- **Burden on Government Budget:** The government estimated payments to retirees ahead of the Budget every year, and the present generation of taxpayers paid for all pensioners as on date.
 - ▶ The **‘pay-as-you-go’** scheme created inter-generational equity issues — meaning the present generation had to bear the continuously rising burden of pensioners.

The Government’s Income and Expenditure:

- **Income:**
 - ▶ **Direct taxes:** Income tax, corporation tax, national insurance contributions, council tax etc.
 - ▶ **Indirect Taxes:** Indirect taxes are typically added to the prices of goods or services. **Sales tax, value-added tax, excise tax, and customs duties** are examples of indirect taxes.
- **Expenditure:**
 - ▶ **Capital expenditure:** money spent to acquire, repair, update, or improve a fixed company asset, such as a building, business, or equipment.
 - ▶ **Current expenditure:** wages, salaries, raw material costs, and administrative expenses.

Negative Impacts of Old Pension scheme:

- **Rolling out major amount of money:** Overall, pension payments by states roll-out a quarter of their own tax revenues. For some states, it is much higher.
 - ▶ For Himachal, it is almost **80 per cent** (pensions as a percentage of the state's own tax revenues); for Punjab it is almost 35 per cent; for Chhattisgarh 24 per cent; and for Rajasthan 30 per cent.
- **High Budget deficit for Governments:** If wages and salaries of state government employees are added to this bill, states are left with hardly anything from their own tax receipts.
- **Long-term Burden on Tax-payers:** The current taxpayers' paying for the ever-increasing pensions of retirees, with Pay Commission awards almost taking the pension of old retirees to current levels.
 - ▶ This means the pension of someone who retired in 1995 may well be the same as that for someone who retires in 2025.

RBI RELEASES REPORT ON MUNICIPAL FINANCES ACROSS ALL STATES

CONTEXT:

Recently, the Reserve Bank of India (RBI) has released a Report on Municipal Finances for all States.

About the Report:

- The Report compiles and analyses the budgetary data for **201 municipal corporations (MCs)** across all States.
- **Theme:** The Report explores '**Alternative Sources of Financing for Municipal Corporations**'.

Findings of the Report:

- **Lack of adequate Infrastructure:** The rapid growth of urbanisation in India has not been accompanied by a corresponding increase in urban infrastructure, which is reflected in the performance of the urban local bodies, especially MCs.
- **Lack of Financial autonomy:** While the size of the municipal budgets in India are much smaller than peers in other countries, revenues are dominated by property tax collections and devolution of taxes and grants from upper tiers of government, resulting in lack of financial autonomy of MCs.
- **Lack of alternate sources of funding:**
 - ▶ Municipal Corporations mostly rely on **borrowings from banks and financial institutions and loans from Centre/State governments** to finance their resource gaps in the absence of a well-developed market for municipal bonds.
 - ▶ MCs' committed expenditure in the form of **establishment expenses, administrative costs and interest and finance charges** is rising, but capital expenditure is minimal.

About Municipal Bonds:

- A **municipal bond (muni)** is a **debt security** issued by a state, municipality, or county to finance its capital expenditures, including the construction of highways, bridges, or schools.
- The **Securities and Exchange Board of India (SEBI)**'s detailed guidelines for the issue and listing of municipal bonds in March 2015.
- **Uses:**
- Through muni bonds, a municipal corporation raises money from individuals or institutions and promises to pay a specified amount of interest, and returns the principal amount on a specific maturity date.

Need for an alternate mode of finance:

- Many of the civic bodies are financially weak and suffering from a resource crunch.
- There is also the need to ramp up infrastructure in cities.
- Local bodies in India are among the weakest globally, as they don't have enough autonomy to:
 - ▶ levy taxes
 - ▶ grant exemptions
 - ▶ borrow funds
- It makes them dependent on **bank loans** or **federal and state governments** for resources.
- Municipal revenues are dominated by **property tax collections and the devolution of taxes**.

Suggestions by the Central Bank:

- Levying a tax on residents to pay bondholders
- Backing the bonds, by earnings from particular projects
- Working out a hybrid mechanism where revenues are used to service the debt.
- **Pool Financing:** Common bond is issued by several municipal bodies to keep costs in check.

Benefits of the Municipal Bonds Market	Challenges:
<ul style="list-style-type: none"> • Help ULBs to garner revenue to complete budgetary projects as property tax is the only major source of municipal revenue. • Critical for large cities and towns to upgrade their creaking infrastructure. • Critical to the success of the Centre's pet projects such as Smart Cities and Amrut 	<ul style="list-style-type: none"> • Reduced investor trust and confidence • No authentic financial data available • Volatility of local markets • Low accountability and autonomy of city agencies • Lack of an enabling environment

INDIA'S LOGISTICS SECTOR BIG OPPORTUNITY FOR INVESTORS

CONTEXT:

The industrial and logistic asset class is attracting large investments and is expected to outperform other real estate and Infrastructure asset classes.

Current status of India's Logistics Sector:

- India's logistics sector accounts for about **14.4% of the GDP**.
- **The unorganized sector amounts to over 90% of the logistics sector.**
- The average logistics cost per GDP among BRICS countries was 11%, but it was 14% in the case of India.

What is National Logistics Policy (NLP) 2022?

Goals set by the National Logistics Policy:

- To raise India's ranking in the Logistics Performance Index to 25.
- To bring down the logistics cost from 14% to 8% of GDP.
- To create data-driven Decision Support Systems (DSS) to **enable an efficient logistics ecosystem**.

- To ensure that logistical issues are minimized
- Exports to grow manifold

- The policy focuses on key areas such as process re-engineering, digitization, and multi-modal transport.
- It is a crucial move as high logistics cost impacts the competitiveness of domestic goods in the international market.
- The need for a national logistics policy was felt since the logistics cost in India is high as compared to other developed economies.

Factors working in India's Favour:

- Progress of 'Make in India'
- 'China plus one strategy' of most global manufacturers
- Huge demand for grade-A industrial and logistic parks in our country

◎ SIGNIFICANCE:

- This would guarantee the logistics industry acts as a growth engine and a major factor in upgrading India to a **USD 5 trillion economy**.
- **PM Gati Shakti** will get a further boost and complementarity with the launch of the National Logistics Policy.
- The Policy will help **make the sector an integrated, cost-efficient, resilient, and sustainable logistics ecosystem** in the country as it covers all bases of the sector along with streamlining rules and addressing supply-side constraints.
- The policy is an endeavor to **improve the competitiveness** of Indian goods, enhance economic growth and increase employment opportunities.

Other Related Initiatives to Logistics:

- Multi-Modal Logistics Parks
- Logistics Ease Across Different States (LEADS) Report
- Dedicated Freight Corridor
- Sagarmala Projects
- Bharatmala Project
- Multimodal Transportation of Goods Act, 1993.
- PM Gati Shakti Scheme

Government Initiatives:

- **Logistics Master Plan:** This initiative takes a geographical strategy as opposed to an industry approach. Several projects and activities will be integrated into the plan to expand the mix of intermodal and/or multimodal transportation.
- **National Multimodal Facilities and Warehousing:** To promote intermodal and Multimodal Logistics Parks (MMLPs) as a separate class of infrastructure, the National Grid of Logistics Parks and Terminals is being planned.
- **National Logistics Workforce Strategy:** For the integrated skill development of professionals in the logistics sector, the government is developing a national logistics workforce strategy.
- **National Logistics Law:** A national logistics law has been drafted and is under consultation. A unified legal framework for the paradigm of One Nation, One Contract, would support the One Nation, One Market objective and provide a flexible regulatory environment (single bill of lading across modes).

WHAT DOES INFLATION RECORDED BASED ON WPI INDICATES?

CONTEXT:

The country's wholesale inflation eased to 8.39 per cent in October as the data released by Ministry of Commerce & Industry.

The decline

- Decline in the rate of inflation in October, 2022 is primarily contributed by fall in the price of mineral oils, basic metals, fabricated metal products, except machinery and equipment; textiles; other non-metallic mineral products; minerals etc.

What is Wholesale Price Index?

- A **wholesale price index (WPI)** measures change in the overall price of goods before they are sold at retail.
- This includes the prices charged by manufacturers and, often outside the U.S., wholesalers.
- Usually expressed in terms of the percentage change from the prior month or a year earlier, the WPI is an inflation indicator.
- Wholesale price indexes are reported monthly to track the overall rate of change in producer and wholesale prices.
- The index is set at 100 for its base period, and calculated based on subsequent price changes for the aggregate output of goods.

How a Wholesale Price Index (WPI) Works?

- A WPI typically takes into account commodity prices, but the products included vary from country to country.
- They are also subject to change, as needed, to better reflect the current economy.
- Some small countries only compare the prices of **100 to 200 products**, while larger ones tend to include thousands of products in their WPIs.

How does it indicate Inflation? (WPI vs. CPI)

- A wholesale price index (WPI) is a measure of inflation **based on the prices of goods before they reach consumers**.
- It includes price rise in food, fuel and all other commodities. **The inflation rate expressed in Wholesale Price Index (WPI) usually denotes the 'headline inflation'**.
- Though **Consumer Price Index (CPI)** values are often higher, WPI values traditionally make headlines.
- WPI tracks inflation at the **producer level** and CPI captures changes in prices levels at the consumer level. WPI does not capture changes in the **prices of services**, which CPI does.
- The WPI is dominated by the prices of **manufactured goods** while the CPI is dominated by the prices of food articles.
- As such, broadly speaking, if food prices go up sharply, it will bump up the **retail inflation rate** far more than it would spike the **wholesale inflation rate**. The reverse will happen when prices of manufactured products (such as TVs and cars) rise sharply.

TEA INDUSTRY MUST MODERNIZE, AND ADAPT TO BECOME VIABLE: PIYUSH GOYAL

CONTEXT:

In an address to the Indian Tea Association (ITA), the Union Minister of Commerce and Industry said that small tea growers will have the biggest role to play in shaping the future of the tea sector in India.

State of Indian Tea Industry:

- **Production:**
- India is the **second-largest producer of tea globally**.
- The **northern part of India is the biggest producer at about 83% of the country's annual tea production in 2021-22** with the majority of the production coming from Assam followed by West Bengal.

- ▶ The **Assam valley** and **Cachar** are the two tea-producing regions in Assam.
- ▶ In **West Bengal, Dooars, Terai, and Darjeeling** are the three major tea producer regions.
- The **southern part of India produces about 17% of the country's total production** with the major producing states being **Tamil Nadu, Kerala, and Karnataka**.
- **India's total tea production** for the financial year 2020-21 was **1,283 million kg**.

The tea industry in India- Exports:

- India is among the **top 5 tea exporters in the world** making about 10% of the total exports.
- In the year 2021, the total value of tea exports from India was around US\$ 687.9 million.
- Indian Assam, Darjeeling, and Nilgiri tea are considered one of the finest in the world.
 - ▶ The **majority of the tea exported out of India is black tea** which makes up about 96% of the total exports.
 - ▶ The **types of tea exported** through India are Black tea, Regular tea, Green tea, Herbal tea, Masala tea, and Lemon tea.
 - ▶ Out of these, black tea, regular tea, and green tea make up approximately 80%, 16%, and 3.5% respectively tea exported from India.
- **India sends tea abroad to more than 25 different nations**.
 - ▶ Some of the top countries importing tea from India are China, Russia, Iran, the United Arab Emirates, the United States, and the United Kingdom.

Challenges faced by the tea industry

- **Overproduction is currently the biggest issue** the Indian tea sector is dealing with.
- **China produces a lot of black tea which is not consumed domestically**. Indian tea exports may be at risk as a result of this.
- Since tea now has a six-digit **Harmonized System of Nomenclature (HSN)** code, India no longer serves as the place of origin (after some value addition), which poses another danger to Indian export.

Harmonized System of Nomenclature (HSN):

- It was developed by the World Customs Organization (WCO) and it came into effect from 1988.
- India has been a member of the WCO (World Customs Organization) since 1971.
- The common HSN codes apply to Customs and GST, and importers and exporters have been furnishing these codes in import/export documents.
- Over 200 countries use the system as a basis for their customs tariffs, gathering international trade statistics, making trade policies, and monitoring goods.

- A huge number of small-scale, unorganized tea farmers are present.
- Untapped tea tourism has immense potential, but it needs a boost.

Growth of the Indian Tea Industry:

- **The one District and One Product (ODOP)** scheme can help spread the glory of Indian Tea.
- To make the tea sector profitable, viable, and sustainable, the **'AROMA' of tea must be enhanced**:
 - ▶ **Assistance**: Support small growers to improve quality with sustainability, and increase production to meet domestic and international demand.
 - ▶ **Re-energize**: Create infrastructure to augment exports and focus on high-value markets such as the EU, Canada, South America & Middle East.
 - ▶ **Organic**: Promote organic and GI tea through brand promotion and marketing.
 - ▶ **Modernization**: To enable tea farmers to become self-reliant and strengthen local supply chains.
 - ▶ **Adaptability**: Focus on the importance of a risk-proof ecosystem, that is, the need for sustainable solutions to make tea plantations meet the challenges of climate change.

Initiatives by the Tea Board of India

- **Subsidies for Domestic Exporters:** The Tea Board also provides subsidies to domestic exporters to participate in International Fairs and Exhibitions.
- **Tea Development and Promotion Scheme:** This scheme was launched in November 2021 by the Tea Board of India for the period of 2021-26.

The objective of this scheme is to enhance the productivity and quality of production in India.

- **Chai Sahyog Mobile App:** Chai Sahyog app is developed by the Tea Board India for tea stakeholders, which will bring traceability of green leaf, besides circulating advisories and weather forecasts.

INDIA'S POTENTIAL FOR NUCLEAR TECHNOLOGIES

CONTEXT:

In its first visit in a Climatic event at COP 27 in Egypt, the International Atomic Energy Agency (IAEA) chief has spoken regarding the importance of Nuclear Technologies for the world to shift towards clean energy.

- He also highlighted India's potential for New Nuclear Technologies.

Background: (Baby steps towards Nuclear Building Nation)

- **India's nuclear energy** self-sufficiency extended from uranium exploration and mining through fuel fabrication, heavy water production, reactor design and construction, to reprocessing and waste management.
- The Atomic Energy Establishment was set up at **Trombay, near Mumbai**, in 1957 and renamed as **Bhabha Atomic Research Centre (BARC)** ten years later.
- Plans for building the **first Pressurized Heavy Water Reactor (PHWR)** were finalized in 1964, and this prototype – Rajasthan 1, was built as a collaborative venture between **Atomic Energy of Canada Ltd (AECL)** and **NPCIL**.
- The **Indian Atomic Energy Commission (AEC)** is the main policy bod yin the country for Nuclear energy exploration and research.
- The **Nuclear Power Corporation of India Ltd (NPCIL)** is responsible for design, construction, commissioning and operation of **thermal nuclear power plants**. Its funding model is **70% equity and 30% debt** financing.
- However, it is aiming to involve other **public sector and private corporations** in future nuclear power expansion, notably **National Thermal Power Corporation (NTPC)** which is largely **government-owned**.

The Strategy for Nuclear Energy developments in India:

- Nuclear currently produces **25 per cent** of the global clean energy.
- India has a largely indigenous nuclear power programme.
- The Indian government is committed to growing its nuclear power capacity as part of its massive infrastructure development programme.
- The government has set ambitious targets to grow nuclear capacity.
- Because India is outside the **Nuclear Non-Proliferation Treaty** due to its weapons programme, it was for 34 years largely excluded from trade in nuclear plant and materials, which hampered its development of civil nuclear energy until 2009.
- Due to earlier trade bans and lack of indigenous uranium, India has uniquely been developing a nuclear fuel cycle to exploit its reserves of thorium.
- Since 2010, a fundamental incompatibility between **India's civil liability law** and international conventions limits foreign technology provision.

Benefits:	Challenges:
<ul style="list-style-type: none"> Minimise carbon emission in the long run. Essential to fulfil the Paris climate agreement Maintaining high rates of economic growth. Meeting long-term demands Diversification of energy options to attain energy security 	<ul style="list-style-type: none"> Comparative costs of nuclear production are high as solar energy costs are decreasing, this difference is increasing further. Risks associated with radioactive wastes Threat of nuclear weapons

Department of Atomic Energy (DAE)

- DAE is a department directly under the Prime Minister of India with headquarters in Mumbai. It was established in 1954 by a Presidential Order.
- It has been engaged in the development of nuclear power technology, applications of radiation technologies in the fields of agriculture, medicine, industry and basic research.

Atomic Energy Regulatory Board (AERB)

- AERB was constituted on November 15, 1983, by the President of India by exercising the powers conferred by the **Atomic Energy Act, 1962** to carry out certain regulatory and safety functions under the Act.
- The regulatory authority of AERB is derived from the rules and notifications promulgated under the **Atomic Energy Act and the Environment (Protection) Act, 1986**.

Nuclear Power Corp of India Ltd. (NPCIL)

- NPCIL is an Indian **public sector** undertaking based in Mumbai.
- It is wholly owned by the Government of India and is responsible for the generation of nuclear power for electricity. It is administered by the DAE.

INDIA'S NEW SET OF NATIONALLY DETERMINED CONTRIBUTIONS (NDCS)

CONTEXT:

India has announced its new set of Nationally Determined Contributions (NDCs) at UNFCCC COP27 event to make transition towards green energy using Nuclear Power and Non-fossil fuels.

India's Updated list of Commitments:

- Increasing Electric Vehicles and Infrastructure:** India aspires to maximise the use of electric vehicles, with ethanol blending to reach **20%** by 2025 (it is currently 10%) and a strong shift to public transport for passenger and freight traffic.
- Strategies for the transition:** India will also focus on **improving energy efficiency** by the **Perform, Achieve and Trade (PAT)** scheme, the National Hydrogen Mission, increasing electrification, enhancing material efficiency, and recycling and ways to reduce emissions.
- Reducing Greenhouse gas emissions:** India's **forest and tree cover** is a net **carbon sink absorbing 15%** of CO₂ emissions in 2016, and the country is on track to fulfilling its Nationally Determined Contributions (NDC) commitment of **2.5 to 3 billion tonnes** of additional carbon sequestration in forest and tree cover by 2030.
- Using Non-fossil fuel based energy:** India updated its NDC commitments to ensuring half its electricity is derived from non-fossil fuel sources by 2030, and reducing the emissions intensity by **45% below** 2005 levels by 2030.

- **Domestic emissions trading scheme:** is a key element of India's strategy, given that the government has already announced the creation of the same in India.

◎ SIGNIFICANCE:

- India's **long-term strategy (LTS)** can guide the growth of **Indian industry, urban planning, and infrastructure creation**.
- Connecting India's **net-zero target** with near-term climate actions is critical to avoid investments that might be incompatible with a low-emissions and climate-resilient future.

INDIA, CHINA, BRAZIL, SOUTH AFRICA OPPOSES THE 'CARBON BORDER TAX' AT COP27

CONTEXT:

On the concluding sessions of the 27th edition of the Conference of Parties (COP), a consortium of countries that includes India has jointly stated that carbon border taxes could result in market distortion and aggravate the trust deficit amongst parties.

◎ ABOUT:

- The European Union has proposed a policy called the '**Carbon Border Adjustment Mechanism**' to tax products such as **cement and steel** that are extremely carbon intensive which are going to effect from 2026 called as '**Carbon Border Tax**'.
- BASIC, a group constituting **Brazil, India, South Africa and China** the large economies that are significantly dependent on coal, has for several years voiced common concerns and reiterated their **right to use fossil fuel**.
- BASIC countries call for a **united solidarity response** by developing countries to any unfair shifting of responsibilities from developed to developing countries.

What is Carbon Border Adjustment Mechanism?

- On **14 July 2021**, the **European Commission** published its proposal for a regulation establishing a carbon border adjustment mechanism (CBAM).
- The core element of the CBAM is the **obligation to pay for the greenhouse gas (GHG) emissions** embedded in certain **carbon-intensive products** imported into the European Union (EU) through the purchase of **so-called CBAM certificates**.
- The CBAM is conceived as a measure against the **risk of carbon leakage**, a phenomenon whereby companies move their production abroad to avoid the costs of complying with stringent environmental standards domestically or import cheaper foreign products that were not subject to a carbon price in their country of production.

Causes behind Imposing Carbon Tax:

- **EU and Climate Change Mitigation:** The EU has declared to cut its carbon emissions by at least 55% by 2030 compared to 1990 levels. Till date, these levels have fallen by 24%.
 - ▶ However, emissions from imports contributing to 20% of the EU's CO₂ emissions are increasing.
 - ▶ Such a carbon tax would incentivise other countries to reduce GHG emissions and further shrink the EU's carbon footprint.
- **Carbon Leakage:** The Emissions Trading System of the EU makes operating within the region expensive for certain businesses.
 - ▶ The EU authorities' fear that these businesses might prefer to relocate to countries that have more relaxed or no emission limits.
 - ▶ This is known as '**carbon leakage**' and it increases the total emissions in the world.

- **Benefit for Certain Countries:** Countries that have already introduced carbon trading systems in their own countries will be benefitted by this initiative.
 - ▶ These industries of these exporting countries can claim a rebate equal to the amount of tax that they have already paid.

Impacts of Carbon Tax:

- **Worst Affected Countries:** The countries to be worst affected will be **Russia, Britain, Ukraine, Turkey and China** which collectively export large amounts of fertilizer, iron, steel and aluminium to the European Union.
 - ▶ The United States sells significantly less steel and aluminium to Europe, but could also see an impact.
- **Impact on India:** The EU is India's third largest trading partner. By increasing the prices of Indian-made goods in the EU, this tax would make Indian goods less attractive for buyers and could shrink demand.
 - ▶ The tax would create serious near-term challenges for companies with larger greenhouse gas footprint.
- **Change in the Climate-Change Regime:** The greenhouse content of these imports would also have to be adjusted in the greenhouse gas inventories of the importing countries which essentially imply that GHG inventories would have to be reckoned not on the production basis but at the point of consumption basis.
 - ▶ This would turn the entire climate change regime upside down.
- **A Protectionist Policy:** The policy can also be regarded as a disguised form of protectionism.
 - ▶ Protectionism refers to government policies that restrict international trade to help domestic industries.
 - ▶ Such policies are usually implemented with the goal of improving economic activity within a domestic economy.

Section: B
(SPECIALS)

CURRENT AFFAIRS

ASSESSING G20'S EVENT IN BALI

CONTEXT:

In a joint declaration brought out at end of the G20 summit in Bali where the multilateral organisation has several discussions on economic difficulties and insecurity worldwide.

- Let us assess the points been discussed at the event and how they are in lines with India's perspective for Global order.

Key Highlights of the G20 event:

- On Russia-Ukraine Conflict:** The G20 summit had come on a common ground and addressed the impact that western sanctions against Russia have had on the global economy.
 - Clarified that G20 is not the forum to 'resolve security issues' but these issues can have significant consequences for the global economy.
- On Food Security:** The declaration from the G20 leaders expressed concern about the challenges to global food security which has been intensified by the on-going conflicts and tensions, and committed to take 'urgent actions' to help developing economies.
 - The text of the outcome document also acknowledged the Russian donations of fertilizers facilitated by the **World Food Programme** and the **Black Sea Grain Corridor**.
- Against Terrorism and Money laundering:** The G20 declaration also called upon the international community to step up efforts to counter money laundering, terrorism financing and proliferation financing and urged the **Financial Action Task Force (FATF)** and FATF Style Regional Bodies to 'lead global action to respond to these threats.
- Against War:** The leaders at G20 have clearly mentioned that they all are against the war, as it causes great human sufferings and effects Global rule-based order.

Differentiating Previous Meet with the recent One:

G20 at Italy in 2021	G20 at Bali in 2022
<ul style="list-style-type: none"> Roadmap for COP 26: It urged leaders of the world's biggest economies to put their action plans to tackle the global climate change crisis. 	<ul style="list-style-type: none"> Roadmap for COP 27: G20 has urged the leaders of developed economies to raise voice against the Carbon Border Tax imposed.

<ul style="list-style-type: none"> Restricting Aid to Coal Based Plants: It included a pledge to halt financing of overseas coal-fired power generation by the end of this year (2021). PPP Model of Finance Mobilisation: Public-Private Partnerships (PPP) are the only way to achieve the trillions of dollars in annual investment needed to transition to clean, sustainable energy. 	<ul style="list-style-type: none"> Addressed the issues regarding Food supply chains and exports among the nations. Money laundering and illegal funds sanctions. Prevent war to address the economic instability and impacts associated with it.
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India in lines with G20:

India has already started working on several points being discussed during the event:

- G20 Presidency as an opportunity for India in 2023:**
 - The growing conflicts and spiralling climate crises have kept global and regional food security as one of the priority agendas of the G20 for many years now.
 - Against this backdrop, India's presidency of the G20 offers a historical opportunity for India to share its successful journey in moving from a **food-deficit** nation to a **food-surplus nation**.
 - India can play a key role to address the growing challenges of food security for creating resilient and equitable food systems.
- For Food security:** The summit created a mechanism focused on **five identified action tracks:**
 - Ensure access to safe and nutritious food for all;
 - Shift to sustainable consumption patterns;
 - Boost nature-positive production;

- Advance equitable livelihoods, and
- Build resilience to vulnerabilities, shocks, and stress
- **Against Terrorism:** India with its INTERPOL meeting recently again cleared its No-tolerance policy for Terrorism.
- **On Russia-Ukraine Conflict:** Being not given any clear statement for India's support to the party in the war between both countries, India has mentioned that it is ready to go with any negotiation that remains in peace and non-weaponised.

Objective of the Indian Presidency:

- Primarily India shall be focused on global economic vulnerabilities:
- Dealing with Energy Security: Under investment in energy infrastructure
- Dealing with Food Securities: Geopolitical developments
- Other key priorities are climate, digital, and health.
- The Presidency provides an opportunity to showcase India's leadership inter-alia in climate action and climate commitments.

Points remained Unaddressed at the meet:

- No Bilateral agreement has been signed in the event regarding the trade and crisis of fuel supplies.
- The issue of Infrastructure finances for food grain storage and Agriculture has been noted.
- Funds for research and development in the field of Biotechnology and GM-crops are unnoticed.

Bidirectional perspectives between G20 nations and India:

- **Domination of Western Powers:** As the Organisation has large number of western Powers included, it makes the a biased discussions on their issues instead of several developing countries which India has a role with like, Bangladesh, Sri-lanka and Central Asian countries.
- **Asian agenda unaddressed:** Like Trade sanctions for developing countries.

The G20:

- The **G20 is an informal group** of 19 countries and the European Union, with representatives of the **International Monetary Fund and the World Bank.**

- G20 is the premier forum for international economic cooperation representing around 85% of the global GDP, over 75% of the global trade, and about two-thirds of the world population.
- It includes 19 countries, including, **Italy, Japan, the Republic of Korea, Argentina, Australia, Brazil, Germany, India, Indonesia, Canada, South Africa, Turkey, the UK, the USA, China, France, Mexico, Russia, Saudi Arabia, and the European Union (EU).**



More on News

- India also attended the 40th East Asia summit and 41st Association of Southeast Asian Nations (ASEAN) held in Cambodia and highlighted its stance on global issues and its agenda for upcoming G20 summit.

Highlights of the Summit:

- **Location:** Cambodian capital (**Phnom Penh**).
- The three-day summit also included the **East Asia Summit**.
- Major Participants other than ASEAN countries included **U.S. President Joe Biden, Chinese Prime Minister Li Keqiang, Russian Foreign Minister Sergey Lavrov and others.**
- India's **external affairs Minister Mr. S Jaishankar** took part in the summit.
- **Major issues:** The **following issues were discussed:**
 - Crisis in Myanmar
 - Russia-Ukraine War and disrupted global supply chains
 - Global Consensus and coordination
 - For World's common interest to cooperate to solve differences peacefully

- Regional tensions between the US and China
- Climate change

The ASEAN	The East Asia Summit (EAS)
<ul style="list-style-type: none"> • ASEAN is a regional inter-governmental organisation consisting of 10 Southeast Asian countries -Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. • Aim: to facilitate and promote cooperation in trade, security, education and culture integration and exchange. • India and several other countries, including the US, China, Japan and Australia, are its dialogue partners. • It is collectively the third-largest economy in Asia after China and Japan and the seventh-largest in the world. 	<ul style="list-style-type: none"> • EAS is the Indo-Pacific’s premier forum for strategic dialogue. • It is the only leader-led forum at which all key Indo-Pacific partners meet to discuss political, security and economic challenges facing the region, and has an important role to play in advancing closer regional cooperation. • The EAS has 18 members - the ten ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam) along with Australia, China, India, Japan, New Zealand, the Republic of Korea, Russia and the United States. • India is the founding member of the East Asia Summit. • ASEAN leads the forum, and the chair position rotates between ASEAN Member States.

Section: C

(PRELIMS

CURRENT AFFAIRS

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INDIA-U.S. CEO FORUM TO FURTHER STRENGTHEN BILATERAL ECONOMIC TIES

- ◎ **CONTEXT:** India-US CEO Forum virtually discussed ways to further strengthen economic ties between the two countries.

About India-US CEO Forum:

- The U.S.-India CEO Forum was created in July 2005. The Forum is a true public-private endeavour to enhance bilateral trade and investment.
- This is the **sixth time** the Forum has been convened since its **reconstitution in 2014**.
- The Department for Promotion of Industry and Internal Trade (DIPP) is the **nodal department for the Forum**.

Significance of the Forum:

- The Forum is a critical channel through which the **two governments receive invaluable private sector input** to sharpen our shared approach on issues at the heart of the U.S.-India commercial relationship.
- It is an **effective platform for dialogue** across key sectoral themes, and to identify areas for closer collaboration for the mutual benefit of both economies.

Highlights of the CEO Forum:

- The leads for each of the Forum's seven working groups shared their strategic outlook for their term of service.
- This dialogue will serve as the framework under which specific recommendations will be charted out during the sixth edition of the India-US CEO Forum, due to be held early next year.
- **It focused on facilitating** FDI, portfolio investment, capital market development, and financing of infrastructure, ICT, Energy, Water and Environment, Pharmaceuticals, etc.

Factors that make the US the Largest Trading Partner of India:

- India is emerging as a trusted trading partner and global firms are reducing their dependence on China for their supplies and are diversifying their business into other countries like India.
- India has joined a **US-led initiative to set up an Indo-Pacific Economic Framework (IPEF)** and this move would help boost economic ties further.
- The US has consistently been India's largest market for services exports, but the recent overseas sales of merchandise goods to that country overtook China, making it the largest bilateral trading nation of India.
 - India's total merchandise exports touched a record USD 418 billion in 2021-22, exceeding the Center's target by about 5% and clocking a 40% growth over the previous year.

SATELLITE BASED METHANE ALERT AND RESPONSE SYSTEM

- ◎ **CONTEXT:** A new satellite-based Methane Alert and Response system has been launched at the 27th Conference of Parties (COP27) to help governments detect methane emissions and tackle them

Methane Alert and Response System (MARS):

- **MARS** is a part of global efforts to slow climate change by **tackling global warming gas**.
- It will use **state-of-the-art satellite** data to identify significant emission events, notify relevant stakeholders, and support and track mitigation progress.

- MARS will **integrate data from the rapidly expanding system** of methane-detecting satellites to include lower-emitting area sources and more frequent detection.
- Data on coal, waste, livestock, and rice will be added gradually to MARS to support the **Global Methane Pledge** implementation.
 - India has not signed up for the Global Methane Pledge.

Components of the Methane Alert and Response System:

- MARS will use data **from global mapping satellites** to identify very large **methane plumes** and **methane hot spots** and data from high-resolution satellites to then attribute the emissions to a specific source.
- **UNEP (United Nations Environment Programme)** will then notify governments and companies about the emissions, either directly or through partners, so that the responsible entity can take appropriate action.
- If requested, **MARS** partners will provide technical or advisory services such as help in assessing mitigation opportunities.
- **UNEP** will continue to monitor the event location and make the data and analysis available to the public between 45 and 75 days after the detection.



About Methane:

- Methane is a rapidly accelerating part of the climate problem.
- It is the **primary component of natural gas**, and it **warms the planet more than 80 times as quickly** as a comparable volume of atmospheric CO₂ over a comparable amount of time.

Sources of Methane:

- Biological Sources
- Agriculture
- Paddy rice cultivation
- Emissions from Fuel and Industries

Steps taken to Curb Methane Emissions:

- **COP 26 Pledges:** At COP26 in Glasgow, over 100 countries signed an agreement to cut methane emissions by 30% by 2030.
- The US President has announced the **Global Methane Pledge**, which is a US-EU-led effort to cut methane emissions by a third by the end of this decade.
- **MethaneSAT:** Controlling methane emissions will require further scrutiny of its sources. To this end, satellites that will track methane leakage such as **MethaneSAT** have been planned to launch.
- The **International Energy Forum (IEF)** launched the **IEF Methane Initiative in June 2021** to develop a methane emissions measurement methodology.

India's methane emissions and mitigation initiative

- Global Methane Initiative (GMI) website, India ranks fourth, and its methane emissions are nearly one-third that of China.

SPECIES IN NEWS

Manta rays



- **Context:** Scientists have found a huge group of manta rays off the coast of Ecuador. The group has more than 22,000 manta rays, more than 10 times the population estimates in other regions.

About

- Manta rays (*Mobula birostris*) are the largest rays in the world.
- **Shape:** large, flat, diamond-shaped bodies, which are characterised by triangular pectoral fins.
- Manta rays have **two horn-shaped** fins protruding from the front of their heads, which has also given them the nickname "devil fish".
- **Habitat:** The sea creatures are found in tropical, subtropical, and temperate ocean waters across the globe.
- **Conservation Status:** In 2019, the manta rays again entered the endangered list of the International Union for Conservation of Nature (IUCN).

Indian Elephant (*Elephas maximus indicus*)

- **Context:** Tamil Nadu's Forest Department has introduced an elephant death audit framework to put in place a more detailed and transparent process for recording and monitoring elephant deaths in the State.
- **Species:** There are three subspecies of Asian elephants – the Indian, Sumatran, and Sri Lankan.
- **Protection Status:** 'Endangered' as per the IUCN Red List.
- **Threats:** Habitat loss, Degradation, and Fragmentation

ISRO'S CRYOGENIC ENGINE, INDIGENOUSLY DEVELOPED FOR LVM3 PASSES THE TEST

- © **CONTEXT:** In a recent test, ISRO has increased the carrying capacity of its LVM3 (GSLV Mk-III) rocket by 450 kg with additional propellant loading of its cryogenic engine CE20.

Highlights of the Test:

- The **CE20 cryogenic engine** was indigenously developed for LVM3 has been subjected to successful hot test at an uprated thrust level of **21.8 tonne** for the first time.
- In addition to this **3D printed LOX and LH2 turbine exhaust casings** were also been inducted in the engine for the first time.
- The Indian space agency has made some major modifications carried out on this test article compared to the previous engines which made introduction of **Thrust Control Valve (TCV)** for thrust control.
- During this test the engine operated with about **20t thrust level** for first 40 seconds, and then thrust level was increased to **21.8t** by moving the thrust control valve.

Do you know?

Currently, the LVM3 rocket has a capacity to carry **four ton** to geo transfer orbit and **10,000 ton** low earth orbit.

Features of LVM3 rocket:

Function	Medium-lift launch vehicle
Manufacturer	Indian Space Research Organisation
Country of origin	India
Cost per launch	₹500 crore (US\$63 million)



- The **Launch Vehicle Mark-3 (LVM 3)** previously referred to as the **Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk3)** is a three-stage medium-lift launch vehicle.
- It was primarily designed to launch **communication satellites** into geostationary orbit.
- The cryogenic upper stage of the **LVM3 vehicle (C25 stage)** is powered by a CE-20 engine working with **liquid oxygen and liquid hydrogen (LOX-LH2)** propellants combination.
- The LVM3 rocket is the one that is used by ISRO to launch **third party satellites** on commercial terms.

INDIA GOT ITS FIRST NATIONAL REPOSITORY FOR LIFE SCIENCE DATA

◎ **CONTEXT:** The Government launched India's first national repository for life science data, the Indian Biological Data Centre (IBDC) at Faridabad, Haryana.

◎ **ABOUT:**

- As per the **BIOTECH-PRIDE guidelines** of the Government of India, IBDC is mandated to archive **all life science data** generated from 'publicly-funded' research in India.

The Biotech PRIDE Guidelines will facilitate and enable exchange of information to promote **research and innovation** in different research groups across the country. The Biotech PRIDE Guidelines are **applicable for all biological data generated through research conducted within the country.**

- With the support of Department of Biotechnology (DBT), the repository has been established at **Regional Centre of Biotechnology (RCB)**, Faridabad with a data disaster recovery site at **National Informatics Centre (NIC), Bhubaneshwar.**
- It has a data storage capacity of about **4 petabytes** and houses the '**Brahm**' **High-Performance Computing (HPC) facility.**
- IBDC has started **nucleotide data submission services** via two data portals namely;
 - Indian Nucleotide Data Archive (INDA)
 - Indian Nucleotide Data Archive -Controlled Access INDA-CA
- The portals aimed to accumulate over **200 billion bases** from **2, 08,055 submissions** from more than **50 research** labs across India.

India's potential in the field of Biotechnology:

- **Efforts in Past:** In 1986, much before any other country in the world, India recognised the enormous potential of biotechnology and established a **separate department** committed to this **branch of science**.
- **Current Economic Status:** Currently, India accounts for approximately 3% of the global biotech industry.
 - The biotechnology sector in India has grown from \$1.1 billion in 2003 to a mammoth \$64 billion sector in 2019 and by 2024; it is expected to be a **\$100 billion industry**.
- **Growing Biotech Start-ups:** India's pioneering achievements in biotechnology is the primary reason why the sector employs the best of minds and contributes to the development of generic and affordable medicare.

The biotech sector can be broadly divided into **five major segments:**

- Biopharma
- Bio-agriculture
- Bio-services
- Bio-industrial Applications
- Bioinformatic

Important Government Initiatives:

- **Make in India, Skill India, Start-up India** programmes are aimed to develop India as a world-class biotechnology and bio-manufacturing hub.
- **Bio manufacturing hub:** The government's aspirational goal of developing the country into a **\$100-billion bio manufacturing hub by 2024** is certainly going to give a fillip to the biotechnology sector as well.
- **Biotechnology Industry Research Assistance Council (BIRAC)**, established under the **Department of Biotechnology in 2012**, continues to play a crucial role in the development of the biotech sector in India. BIRAC brings innovators and funders on to a common table, enabling ideas to become a reality and facilitate technological advances that make human progress possible.

REVERSAL OF TYPE-2 DIABETES IN YOUNG PEOPLE WITHOUT MEDICATION

◎ **CONTEXT:** A sedentary lifestyle and wrong eating behaviour have made people more vulnerable to diseases like type-2 diabetes. But slight modification in lifestyle can reverse it.

◎ **DIABETES:**

- Diabetes is a **Non-Communicable Disease (NCD)** that occurs either when the pancreas does not produce enough insulin (a hormone that regulates blood sugar, or glucose), or when the body cannot effectively use the insulin, it produces.
- **Type 2 diabetes** is age-related; it often develops at the age of 45 and beyond.
- **Type 1 diabetes** is largely genetic in nature, while Type 2 depends on the lifestyle of the individual.

About Insulin:

- **Insulin** is a peptide hormone produced by beta cells of the pancreatic islets;
- It is considered to be the main **anabolic hormone** of the body.
- It regulates the metabolism of carbohydrates, fats, and protein by promoting the absorption of glucose from the blood into the liver, fat, and skeletal muscle cells.

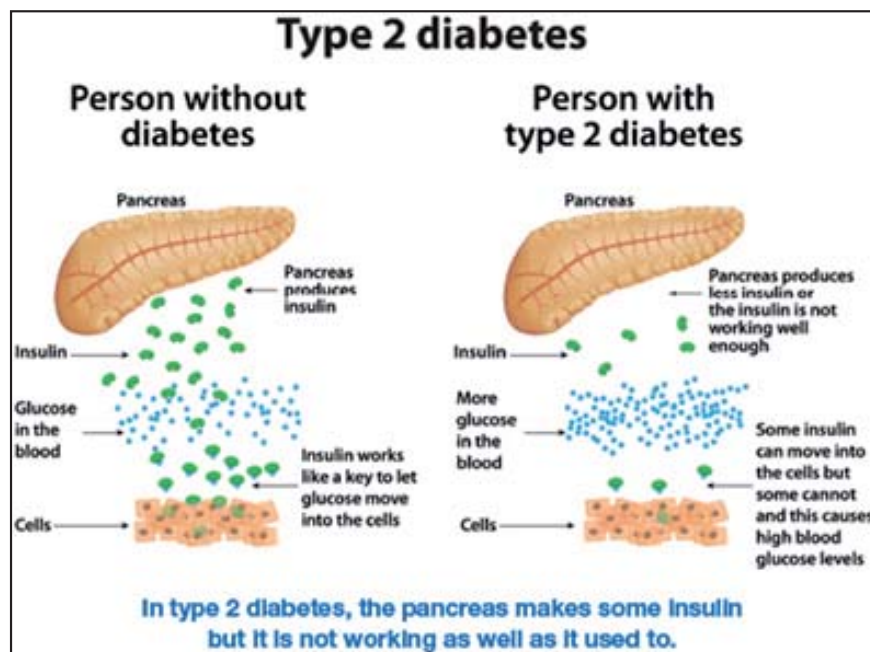
Symptoms of type 2 diabetes

- The symptoms of '**type 2 diabetes**' are similar to those of '**type 1 diabetes**' and include:
 - Excessive thirst and dry mouth

- Frequent urination
- Lack of energy, tiredness
- Slow healing wounds
- Recurrent infections in the skin
- Blurred vision
- Tingling or numbness in hands and feet
- **Gestational diabetes:** This type occurs in women during pregnancy when the body can become less sensitive to insulin. Gestational diabetes does not occur in all women and usually resolves after giving birth.
- **Pre-diabetes:** It occurs when your blood sugar is higher than normal, but it's not high enough for a diagnosis of type 2 diabetes.

Impacts of Diabetes: It affects the five major organs namely, the Kidney, Heart, Blood vessels, Nervous System, and Eyes (retina).

Factors Responsible: Factors that lead to an increase in diabetes are an unhealthy diet, lack of physical activity, harmful use of alcohol, overweight/obesity, tobacco use, etc.



Clinical view: *Reversal of diabetes* is a term that has been rejected by the American and European Association of Diabetologists but if a person can reduce medication with good exercise and the right diet, for six months, it helps to treat the disease more effectively, as 95% of all diabetes cases are related to poor lifestyle.

Government initiatives:

- **India's National non-communicable disease (NCD) Target** is to prevent the rise in obesity and diabetes prevalence.
- **National Programme for Prevention and Control of Cancers, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** in 2010, to provide support for diagnosis and cost-effective treatment at various levels of health care.

Section: D

(MISCELLANEOUS)

CURRENT AFFAIRS

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THIRD EDITION OF THE 'NO MONEY FOR TERROR' CONFERENCE TO BE HOSTED BY INDIA

- ◎ **CONTEXT:** The Third 'No Money for Terror (NMFT)' conference is being held in India from November 18-19 in New Delhi.

What is Terror Financing?

- Terrorist financing encompasses the **means and methods** used by terrorist organizations to finance their activities.
- This money can come from legitimate sources, for example from profits from businesses and charitable organizations.

About the Conference:

- **Type:** Ministerial Conference
- **Aim:** to create platform for international discussions on countering terror financing.
- **Organised by:** **Financial Intelligence Units (FIUs)** of over 100 countries, jointly called **The Egmont Group**.
- The Egmont Group was created to provide FIUs around the world a forum to exchange information confidentially to combat money-laundering, the financing of terrorism and other predicate offences.
- The inaugural edition of this conference was held in **Paris, France, in 2018**. The second edition of the NMFT took place in **Melbourne, Australia, in 2019**.

Points to be in focus for third edition:


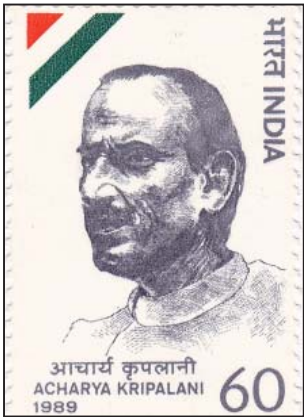

- The representatives of about **75 countries** are going to attend the event.
- The major topics to be discussed at the conference spanning four sessions are;
 - Global trends in terrorism and terrorist financing;
 - Use of formal and informal channels for terrorism;
 - Emerging technologies and terrorist financing; and
 - International cooperation to address challenges in combating terrorist financing.
- It aims to set pace for other **high-level official and political discussions** focusing on terror finance.
- **Concerns highlighted:**
 - The terrorists and extremists have improvised on technologies like cryptocurrency and crowdfunding by customising them to suit their requirements.
 - They are also using the dark web to bring together professional hackers and terrorists seeking to transfer or crowdsource funds, and the anonymous, decentralised, and often untraceable nature of terror financing through various means.





Section: E
(QUICK BYTES)

CURRENT AFFAIRS

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<p>Testing methods in Pashmina flags presence of 'Shahtoosh'</p> 	<ul style="list-style-type: none"> Traders of Pashmina shawls are complaining that "obsolete testing methods" have resulted in many of their export consignments being flagged for presence of 'Shahtoosh' guard hair, obtained from endangered Tibetan antelopes. Pashmina is obtained from breeds of mountain goats (<i>capra hircus</i>) found in the Changthang Plateau in Tibet and parts of Ladakh, in the Himalayan region of India. India contributes only about 1% of the world's Pashmina, but the Pashmina produced in India is considered the best of the lot and occupies a unique position. 'Shahtoosh' is the fine undercoat fibre obtained from the Tibetan Antelope, known locally as 'Chiru', a species living mainly in the northern parts of the Changthang Plateau in Tibet. As they offer high levels of smoothness and warmth, Shahtoosh shawls became a highly expensive commodity.
<p>Jivatram Bhagwandas Kripalani (Acharya Kripalani)</p> 	<ul style="list-style-type: none"> Kripalani (1888-1982) was well-known as a Gandhian and a socialist. Born in Hyderabad, Sindh, in 1888, he became the Congress president in 1946 and resigned from his position in 1947, soon after Independence. He was also the first to rebel against Prime Minister Jawaharlal Nehru and moved a no-confidence motion against the government in the wake of the disastrous 1962 Sino-Indian War. He courted arrested on numerous occasions for his role in the Civil Disobedience Movement (1930), he was one of the main organizers of the Salt Satyagraha and later of Gandhi's last big national protest, the Quit India Movement.
<p>India hosted the 2nd BIMSTEC Agriculture Ministers</p>	<ul style="list-style-type: none"> BIMSTEC was established in the year 1997. It includes five countries of South Asia :- Bangladesh, Bhutan, India, Nepal, Sri Lanka and two countries of South-East Asia – Myanmar and Thailand. The 2nd BIMSTEC Agriculture Ministerial Meeting adopted the Action Plan for Strengthening BIMSTEC Agricultural Cooperation (2023-2027).
<p>SC issues notice to HCs over 'Gram Nyayalayas'</p> 	<ul style="list-style-type: none"> The Gram Nyayalayas Act, 2008, provided for "Gram Nyayalayas" at the grassroots level. They were established to- <ul style="list-style-type: none"> provide access to speedy and affordable justice to citizens at the doorstep ensure that opportunities for securing justice were not denied to anyone on account of social, economic or other disabilities Sections 5 and 6 of the Act says States, in consultation with the HCs, will appoint a 'Nyayadhikari' for each 'Gram Nyayalaya'

<p>Metal-munching microbes help the rare, toxic element tellurium circulate in the environment</p> 	<ul style="list-style-type: none"> • In a recent study, metal-munching microbes have been found to help this tellurium through the environment. • Tellurium is a semimetallic, lustrous, crystalline, brittle, silver-white element. • It has the properties both of the metals and the non-metals. • Tellurium is as rare as gold in Earth's crust. It is present in the Earth's crust only in about 0.001 parts per million. • Tellurium minerals include calaverite, sylvanite and tellurite. • It is very toxic and teratogenic (disturbs the development of an embryo or foetus). • It is an element found in an increasing number of solar panels. • The silvery substance was discovered only in 1783.
<p>"In our LiFEtime" Campaign launched by India</p> 	<ul style="list-style-type: none"> • National Museum of Natural History (NMNH), under the Ministry of Environment Forest and Climate Change and United Nations Development Programme (UNDP), jointly launched "In Our LiFEtime" campaign. • Aim: to encourage youth between the ages of 18 to 23 years to become message bearers of sustainable lifestyles. • The campaign gives a global call for ideas from youth across the world who are passionate about living environment conscious lives.
<p>Nine new Countries Join GOWA</p> 	<ul style="list-style-type: none"> • Nine new countries (Belgium, Colombia, Germany, Ireland, Japan, the Netherlands, Norway, the United Kingdom, and the US) have joined the Global Offshore Wind Alliance (GOWA) at the UN-COP27 climate summit. • GOWA was initiated in September 2022 by the; <ul style="list-style-type: none"> ➤ International Renewable Energy Agency (IRENA) ➤ Denmark ➤ Global Wind Energy Council (GWEC) • It aims to drive installed global offshore wind capacity up by 670 per cent — from 57 GW in 2021 to 380 GW in 2030. • Offshore wind energy is the clean and renewable energy obtained by taking advantage of the force of the wind that is produced on the high seas, where it reaches a higher and more constant speed than on land due to the absence of barriers.
<p>NFRA brings out norms for inspecting audit firms</p> 	<ul style="list-style-type: none"> • Audit regulator, the National Financial Reporting Authority (NFRA), brought out a set of guidelines for monitoring the audit firms' quality and compliance standards. • NFRA is a body constituted under the provisions of Section 132 of the Companies Act, 2013. • The constitution of this authority is effective from 1st October 2018. • Objective: To continuously improve the quality of all corporate financial reporting in India.

IFSCA signs MoU with RBI in the field of regulation, supervision of regulated entities



- **MoU:** To collaborate in the field of regulation and supervision of regulated entities in their respective jurisdictions.
- The RBI is the **central bank and monetary authority of India** carrying on, inter-alia,
 - ▶ the regulation and supervision of banks and non-banking financial institutions
 - ▶ undertaking other functions and exercising powers in accordance with various statutes
- IFSCA is a **statutory authority** established under the **IFSCA Act 2019**.
- It is headquartered at **GIFT City, Gandhinagar** in Gujarat.
- The IFSCA is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
- The **GIFT IFSC** is currently the **maiden international financial services centre in India**.

Climate Change Performance Index 2023

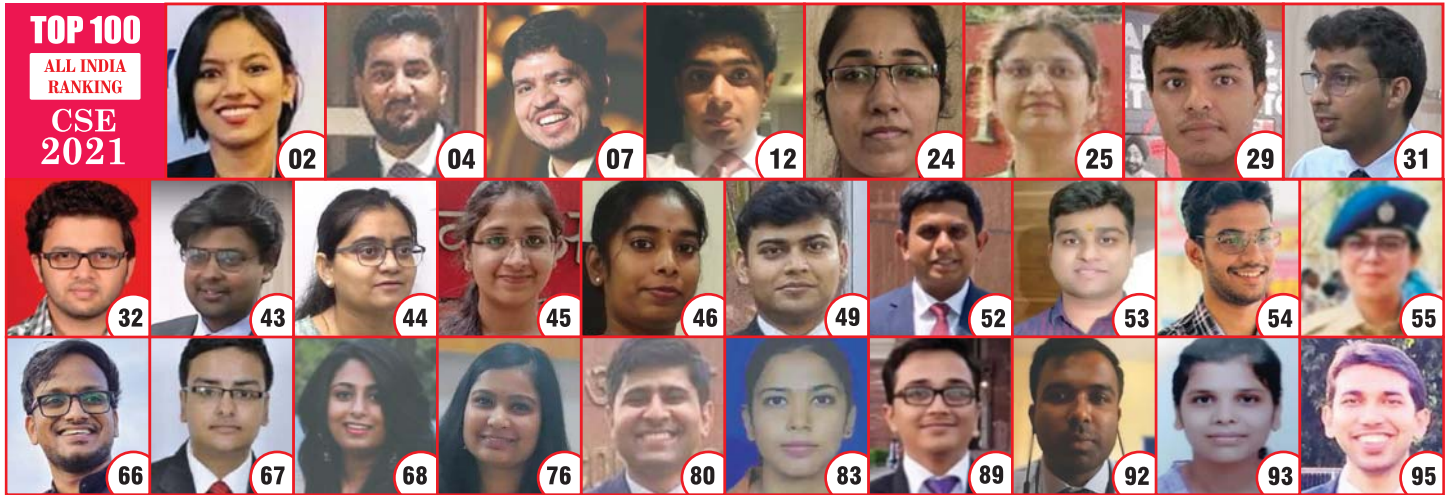


- Climbing two spots on the **Climate Change Performance Index (CCPI) 2023**, India has bagged the eighth position out of the 63 countries that were assessed.
- The CCPI evaluates 59 countries and the European Union that contribute to the generation of greenhouse gas (GHG) emissions.
- Rankings for the CCPI are decided as per a standardised criterion, with 14 indicators across four primary categories:
 - ▶ **Renewable Energy**
 - ▶ **Greenhouse Gas Emissions**
 - ▶ **Climate Policy**
 - ▶ **Energy Use**
- The ranking is done by **Germanwatch, NewClimate Institute and the Climate Action Network**.

2022 Summit of LeadIT



- India and Sweden hosted the **LeadIT Summit** on the side-lines of COP27.
- The **LeadIT (Leadership for Industry Transition) initiative** focuses on low carbon transition of the hard to abate industrial sector.
- LeadIT gathers countries and companies that are committed to action to achieve the Paris Agreement.
- It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019.
- It is supported by the **World Economic Forum**.
- LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions.



SUCCESS IS A PRACTICE WE DO!

