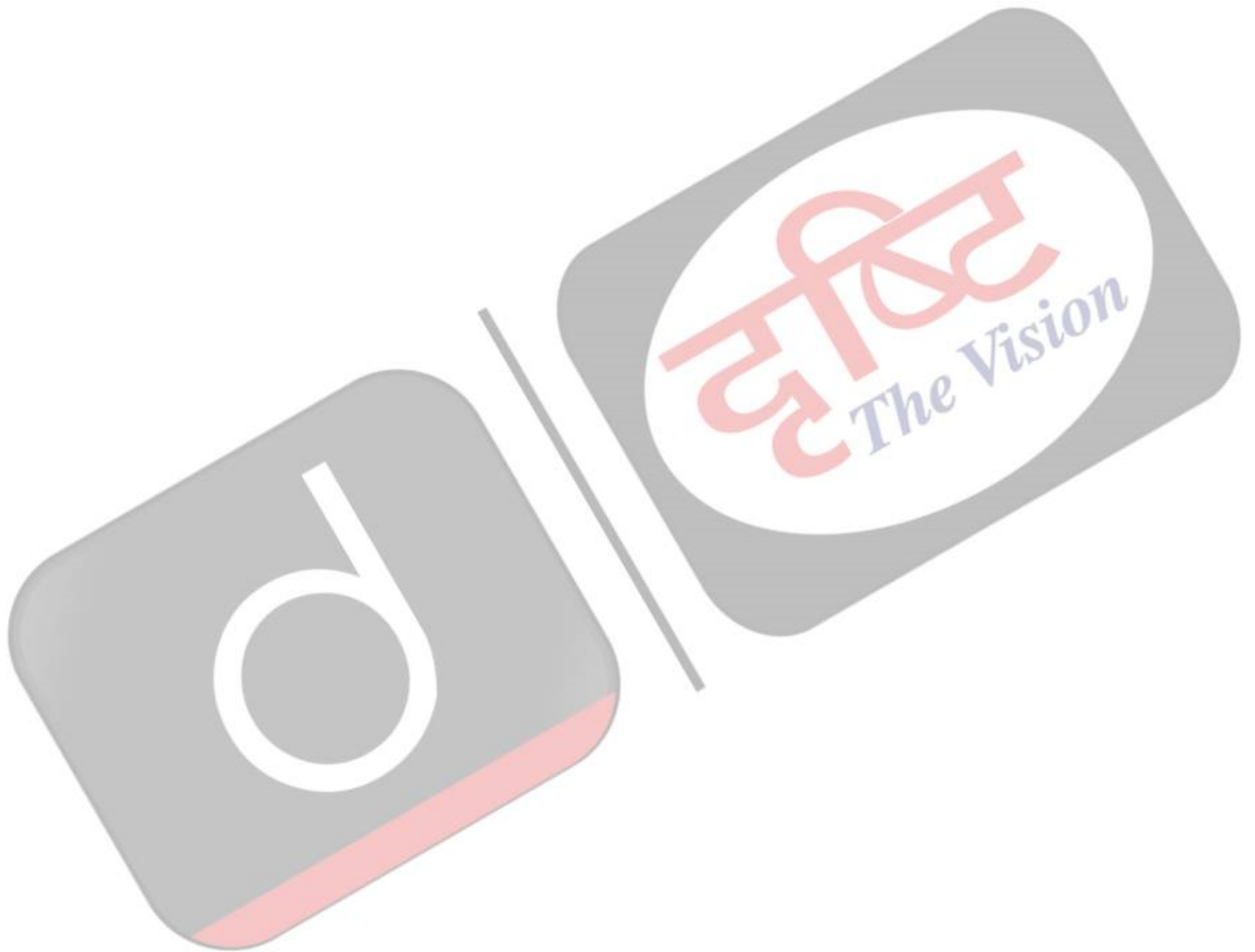




Nanotechnology

//



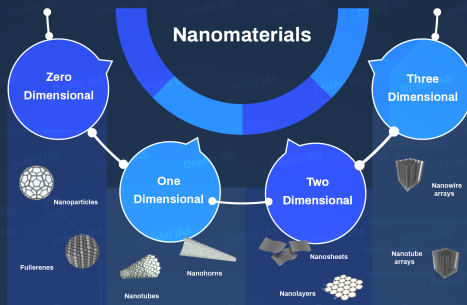
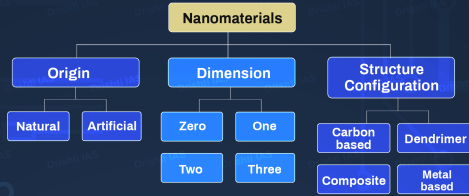
Nanotechnology and Nanomaterials

Nanotechnology is the branch of science and engineering focused on manipulating matter at the atomic and molecular scale (dimensions ≤ 100 nanometers).

Nanomaterials

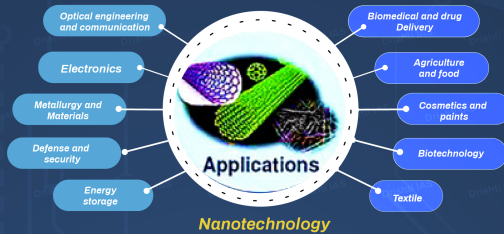
Materials with at least one dimension ≤ 100 nm

Classification:



Properties:

- **Mechanical Strength:** Higher durability and lightweight – ideal for aerospace and automotive
- **Quantum Confinement:** Alters electronic properties at nanoscale – enhances semiconductor performance and display technologies
- **Increased Surface Area:** Enhanced catalytic properties – ideal for chemical reactions and environmental cleanup
- **Magnetic Properties:** Exhibits superparamagnetism – useful in data storage



Nanotechnology in India – Evolution

Chintamani Nagesa Ramachandra Rao is regarded as the father of Indian nanotechnology.

- **9th Five-Year Plan (1998-2002):** Introduced nanomaterials into India's strategic science goals
- **10th FYP (2002-07):** Launched National Nanoscience and Nanotechnology Initiative (NSTI)
 - Nano Science and Technology Mission (NSTM) (2007) pushed nanotechnology into mission-mode R&D
- **12th FYP (2012-17):** Phase-II of NSTM
- Institute of Nano Science and Technology (INST): Estd. 2013

Challenges	Way Forward
<ul style="list-style-type: none"> • Safety & toxicity • Efficient mass-production • Inadequate regulatory frameworks • High production expenses • IPR related legal complexities 	<ul style="list-style-type: none"> • Prioritising R&D and fostering international collaboration • Rigorous testing of nanomaterials to assess their potential toxicity • Develop comprehensive regulatory frameworks + ethical guidelines



[Read More...](#)

Reforming Bail Provisions

For Prelims: [Supreme Court](#), [Prevention of Money Laundering Act \(PMLA\), 2002](#), [Detention, Article 21](#), Constitutional Courts, [Bail](#), [KA Najeeb Case](#), Cash Bonds, Surety Bond.

For Mains: Challenges associated with bail provisions in India and reforms needed.

Source: [HT](#)

Why in News?

Recently, the [Supreme Court \(SC\)](#) disapproved of using the [Prevention of Money Laundering Act \(PMLA\), 2002](#) “as a tool” to prolong the **incarceration** of an accused.

- It ruled that **constitutional courts** will not allow **indefinite pretrial detention** under the anti-money laundering law.

What are the Key Points of SC's Ruling on PMLA and Bail?

- **No Arbitrary Detention:** Although there is a *prima facie* case against an accused, the court can rule in favour of his release due to the **prolonged detention** without a clear timeline for the trial.
 - Stringent provisions of the **PMLA, 2002**, especially **Section 45**, should not result in **arbitrary detention** of the accused.
 - According to **Section 45 of the PMLA, 2002** bail can be granted to an accused in a money laundering case only if two conditions are satisfied.
 - The person has to prove in court that he or she is **prima facie innocent** of the offence.
 - The accused should be able to **convince** the judge s/he would **not commit any offence** while on bail.
- **Bail Principles Affirmed:** The court reaffirmed the principle that “**bail is the rule, and jail is the exception**” in India’s criminal jurisprudence.
 - It was noted that the high threshold for bail under PMLA must not lead to an **indefinite loss of personal liberty** for the accused.
- **Judicial Concerns on Delayed Trials:** The ruling highlighted the intersection of **delayed trials** and **harsh bail provisions** under special laws like **PMLA, 2002**, or **UAPA, 1967** and **Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS)**.
 - The **expeditious disposal of trials** is necessary and should be integrated into the interpretation of these laws.
- **Judicial Authority to Grant Bail:** The SC reiterated that stringent **bail provisions** do not stop constitutional courts from intervening in cases where trials are **excessively delayed**.
 - The Supreme Court referenced its **2021 judgement in the KA Najeeb case** that recognised inordinate delays in trials as a **ground of bail in UAPA cases**.
- **Impact on Fundamental Rights:** Excessive delays in trials could infringe on the **fundamental rights** of individuals under [Article 21](#) of the Constitution, which guarantees the **right to life and**

personal liberty.

- **Prolonged incarceration** without trial can result in unjust deprivation of liberty, highlighting cases where individuals were acquitted after years of detention.
- **Potential Claims for Compensation:** The SC suggested that individuals who suffer wrongful imprisonment may have grounds for **compensation** due to violations of their rights under Article 21.

What are the Concerns Regarding India's Bail System?

- **High Proportion of Undertrials:** Over **75%** of India's prison population comprises **undertrials** and **overcrowding** in prisons is reported at **118%**.
 - This situation reflects systemic inefficiencies in the bail system that need urgent reform.
 - The Supreme Court of India, in **Satender Kumar Antil vs CBI, 2022** acknowledged the **failings of the country's bail system** in recognizing the issue of **undertrial and granting bail**.
- **Undermines Principle of 'Presumption of Innocence':** Crowding of jails with undertrial prisoners undermines the **principle of 'presumption of innocence'**.
 - Presumption of innocence is a legal principle that states that a person shall have the **right to be presumed innocent** until proven guilty according to law.
- **Lack of Empirical Evidence:** Information regarding the **demographics of undertrials, category of offences and timelines for bail**, proportion of undertrials applying for bail, the acceptance or rejection rates of bail applications, and the challenges in bail compliance remain is not widely available.
- **Lack of Safeguards:** The arrest of a person is justified as **'necessary'** if the police have **'reasons to believe'** that arrest is required to ensure their presence in court.
 - Many arrested individuals, particularly from **disadvantaged sections** of society, remain unprotected.
- **Challenges in Bail Adjudication:** The power to grant bail is largely based on the **court's discretion** and depends on the **facts of each case**.
 - Bail is denied based on the **gravity of the offence, character of the accused and likelihood** of the accused absconding or tampering with evidence.
- **Challenges in Bail Compliance:** A large number of undertrials continue to remain in prison despite being granted bail due to challenges in **complying** with bail conditions.
 - Bail conditions in the nature of **cash bonds, surety bond, proof of property ownership and solvency**, make it harder for poor to secure their release.
- **Flawed Assumptions:** The bail system has flawed assumptions that every arrested person will be **propertied** or have access to **propertied social connections**.
 - It presumes that the **risk of financial loss** is necessary to ensure the presence of the accused in court.

What are Supreme Court judgments Regarding Bail System?

- **Babu Singh v. State of Uttar Pradesh Case, 1978:** Bail should **generally be granted** unless there are substantial grounds for believing that the accused will abscond or tamper with evidence.
- **State of Rajasthan v. Balchand Case, 1978:** SC held that **Bail is the rule and Jail is an Exception**.
 - Detention of a person affects his right to life and liberty and the main objective of detention is to ensure easy availability of an accused for trial without any inconvenience.
- **Parvez Noordin Lokhandwalla v. State of Maharashtra Case, 2020:** It was noted that bail conditions should **not be excessive** compared to their intended purpose.
- **Satender Kumar Antil v CBI Case, 2022:** Courts must ensure that **strict bail conditions** do not disproportionately affect the accused.

Way Forward

- **Simplification of Bail Conditions:** Reassess and **simplify bail conditions** to make them more accessible, particularly for individuals from economically disadvantaged backgrounds.
 - E.g. **Community service** as alternative to cash and surety bonds.

- **Safeguards Against Arbitrary Arrests:** Introduce strict guidelines and safeguards to protect against **arbitrary arrests**, particularly for vulnerable populations.
 - Police must provide **clear justification for arrests**.
- **Community-Based Supervision Programs:** Develop **community-based supervision** programs as alternatives to incarceration.
 - These programs could involve monitoring undertrials through local organisations or social workers, rather than relying solely on bail.
- **Alternative to Petty Criminals:** Petty criminals awaiting trial could be ordered to stay in **reformatory facilities** where they can engage in useful labour, such as **volunteer work**.
- **Speedy Trials:** The **Supreme Court Committee on Prison Reforms** headed by Justice (retd) Amitava Roy underlined that **speedy trial** can become an **effective tool** to address the issue of overcrowding in jails.
- **Adequate Infrastructure:** The report “**Empirical study to evaluate the delivery of justice through improved infrastructure**” issued by the Ministry of Law and Justice highlighted that increased **space of courtrooms, availability of basic furniture, digital infrastructure, and skilled manpower** can reduce the number of under-trial prisoners.
- **Clear Legal Provisions:** **Clearly defined laws** help individuals understand their rights and responsibilities, **decreasing the chances of prolonged detention** caused by misunderstandings.

Drishti Mains Question:

Examine the challenges associated with accessing bail in India and suggest measures for a more equitable bail provision framework.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. With reference to India, consider the following statements: (2021)

1. When a prisoner makes out a sufficient case, parole cannot be denied to such prisoner because it becomes a matter of his/her right.
2. State Governments have their own Prisoners Release on Parole Rules.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

Mains

Q. Discuss how emerging technologies and globalisation contribute to money laundering. Elaborate measures to tackle the problem of money laundering both at national and international levels. (2021)

Asset Declaration of Judges

For Prelims: [Right to Information](#), [High Courts](#), [Secretary](#), [Supreme Court](#), [Comptroller and Auditor General \(CAG\)](#), [Council of Ministers](#), [Parliamentary Committee](#), [Lok Sabha](#), [Chief Justice of India \(CJI\)](#).

For Mains: Need of transparency in judicial system to strengthen public faith in its functioning.

[Source: IE](#)

Why in News?

Recently, a [Right to Information](#) reply showed that **details of assets of only 13%** of the total High Court judges are available in the public domain.

- Details of assets include **movable and immovable assets** of the judges, their spouses, and dependents, investments in shares, mutual funds, fixed deposits, and liabilities like bank loans.

What are the Key Facts Regarding Asset Declaration by Judges?

- **Low Rate of Declarations:** Of the **749 judges** posted across **25 High Courts in India**, only **98 judges** (approximately **13%**) have made their assets available in the public domain. This is a **strikingly low figure**, despite the push for transparency.
- **Concentration of Asset Declarations:** **80% of the declarations** come from just three High Courts of **Kerala High Court, Punjab and Haryana High Court and Delhi High Court**.
- **Supreme Court's Partial Disclosure:** The Supreme Court released the names of **27 of its 33 judges** who had declared their assets to the Chief Justice of India, but **asset details were not disclosed**.
- **Varied Responses:** The **Allahabad and Bombay High Courts** stated that the asset declarations are not covered under the **RTI Act, 2005** as "information."
 - The **Gujarat High Court** expressed that there is **no public interest** in disclosing judges' personal information.
 - The **Andhra Pradesh High Court and Telangana High Court** labelled asset declarations as **confidential**, and said they cannot be posted online.

What are the Provisions for Declaration of Assets by Judges?

- **All India Services (Conduct) Rules, 1968:** The government draws a **comparison** between **judges and civil servants**, as Judges' salaries are **set in relation to the salaries of civil servants**, especially those at the **Secretary level** in the Government of India.
 - **Rule 16(1) of the rules** mandates that every person who is a member of the service **must submit a return of their assets and liabilities** which should apply to judges too.
- **Restatement of Values of Judicial Life 1997:** In 1997, the [Supreme Court](#) adopted certain **judicial standards** which stated that **every judge** should make a declaration of all assets in the form of **real estate or investment** held in their names, in the name of their spouses or any other person dependent on them, to the **Chief Justice**.
- **2009 Resolution:** In 2009, the Supreme Court resolved to declare the **judges' assets** on its official website adding that it was **"purely on a voluntary basis"**.
 - In the same year, a resolution was passed by the **Delhi High Court** stating that all the judges have agreed to make their **assets public**.
- **Constitutional Authorities:** Other constitutional authorities, such as the [Comptroller and](#)

[Auditor General \(CAG\)](#) and [Council of Ministers](#), are already declaring their assets and making them publicly available.

- This sets a precedent for **judges** to also disclose their assets **regularly and publicly**.
- **Committee Recommendations:** The [Parliamentary Committee on Personnel, Public Grievances, and Law and Justice](#) recommended legislation for the **mandatory disclosure** of assets and liabilities of judges of the Supreme Court and High Courts.
- **Judicial Standards and Accountability Bill:** A bill titled "**The Judicial Standards and Accountability Bill, 2010**" was prepared to address the need for judicial transparency, including **mandatory asset declarations by judges**.
 - The bill, however, lapsed following the dissolution of the [15th Lok Sabha](#), and was never reintroduced.

What is the Need for the Declaration of Assets by Judges?

- **Public Trust and Accountability:** Judges regularly review **legislation, government policies**, and decisions related to awarding tenders, which makes it essential for them to ensure **transparency** regarding their assets.
 - If a **minister** responsible for a tender must disclose their assets, the **judge reviewing** the minister's decisions **should do the same**.
- **Strengthening Public Confidence:** The **declaration of assets** by judges will help to bolster **public trust** in the judicial system as it demonstrates their commitment to fairness and impartiality.
- **Transparency:** SC has ruled that the [Office of the Chief Justice of India \(CJI\)](#) is a '**public authority**' under the **Right to Information (RTI) Act, 2005** and subject to the provisions of **RTI Act, 2005**. Asset declaration is a progressive move towards **greater transparency** in the judiciary.
- **Importance of Perception:** In public life, **how people perceive** actions and decisions can significantly **influence opinions and trust**. The judiciary must be perceived to be **transparent** and beyond reproach.
 - The article emphasises that **maintaining secrecy** around judges' assets may **undermine** the **public's trust** in the judiciary.

What Practices do Developed Countries Follow Regarding Judges' Asset Declarations?

- **United States:** Under the **Ethics in Government Act, 1978** federal judges must disclose the **source and amount of income**.
 - Judges must also disclose the **source, description, and value of gifts** for which the aggregate value is more than a certain minimal amount.
- **South Korea:** Under the **Public Services Ethics Act, 1993** all high-ranking public officials including **judges and their spouses** must disclose their ownership of **real property, intangible property, and shares in non-public business entities**.
- **Philippines:** **Anti-Graft and Corrupt Practices Act, 1960** requires public officials to disclose their assets in the **form of a declaration**.
- **Russia:** **Anti-corruption laws** require **mandatory asset and income control of judges** and members of their families and **judge-position applicants**.

What Concerns are Related to Declaration of Assets by Judges?

- **Privacy and Security:** Public disclosure may expose judges and their families to **risks like harassment or extortion**, raising concerns about their safety and privacy.
- **Misuse of Information:** Asset details could be misused for **political or personal motives**, leading to unwarranted scrutiny or pressure on judges.
- **Judicial Independence:** Some argue that mandatory asset declarations may **undermine judicial independence** by subjecting judges to external influences or public criticism.

- **Voluntary Nature:** Since asset disclosure is voluntary in India, **inconsistencies in the practice** could lead to a perception of unequal transparency.
- **Perceived Public Pressure:** Judges might feel **compelled to conform to public opinion** on financial matters, potentially affecting their impartiality in cases involving financial or economic issues.

Way Forward

- **Enact Legislation:** In August 2023, a Parliamentary Standing Committee released a report titled '**Judicial Processes and their Reform**', recommending that legislation be enacted to require judges of the Supreme Court and High Courts **to submit annual property returns to the appropriate authority.**
- **Establish Clear Protocols:** The Supreme Court should establish **clear protocols** for asset declaration, including **timelines, formats, and specific information** to be disclosed.
- **Annual Public Reports:** The judiciary could publish **annual reports** summarising the asset declarations, similar to how other constitutional authorities operate.
- **Balance Privacy and Accountability:** The framework for asset declaration should find a balance between **maintaining** the privacy of **judges** and ensuring **public accountability.**

Drishti Mains Question:

Discuss the importance of mandatory asset declarations by judges in India.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. With reference to the Indian judiciary, consider the following statements: (2021)

1. Any retired judge of the Supreme Court of India can be called back to sit and act as a Supreme Court judge by the Chief Justice of India with the prior permission of the President of India.
2. A High Court in India has the power to review its own judgement as the Supreme Court does.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

Q. With reference to the Constitution of India, consider the following statements: (2019)

1. No High Court shall have the jurisdiction to declare any central law to be constitutionally invalid.
2. An amendment to the Constitution of India cannot be called into question by the Supreme Court of India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Ans: (d)

Mains

Q. Constitutional Morality' is rooted in the Constitution itself and is founded on its essential facets. Explain the doctrine of 'Constitutional Morality' with the help of relevant judicial decisions. **(2021)**

Q. Judicial Legislation is antithetical to the doctrine of separation of powers as envisaged in the Indian Constitution. In this context justify the filing of large number of public interest petitions praying for issuing guidelines to executive authorities. **(2020)**

Call for Reforming UN Security Council

For Prelims: L69 and C-10 Countries, [United Nations Security Council](#), [G4 nations](#), [UN General Assembly](#), India's participation in the Security Council.

For Mains: Need for UN Security Council Reforms, Procedure of UN Security Council Reforms, Significance of UN Security Council's Permanent Membership.

Source: [TH](#)

Why in News?

As the [United Nations \(UN\)](#) approaches its **80th anniversary in 2025**, the [G4](#) countries (**India, Brazil, Germany, and Japan**) have reiterated their calls for urgent reforms of the [UN Security Council \(UNSC\)](#).

- This was supported by other plurilateral groupings such as the **L69** and **C-10**.
- Also, India addressed the **79th UNGA** summit, sharing its perspectives and recommendations on global development and reforms.

What are G4, L69 and C-10 Groups?

- **L69 Group:**
 - The L69 Group consists of **42 developing nations, including India, from Asia, Africa, Latin America, the Caribbean, and the Pacific.**
 - It **advocates for expanding both permanent and non-permanent UNSC membership** to reflect current global realities and enhance accountability and representation.
 - The Group advocates for a review of the permanent membership composition every 15 years to ensure it reflects evolving global realities.
 - The group is named after the "**L.69**" **draft document** introduced in 2007-08, which initiated the **Intergovernmental Negotiation (IGN)** process.
- **C-10 Grouping:**
 - The **Committee of Ten (C-10)** Heads of State and Government of the African Union

consists of **10 African nations**.

- It aims to **reform the UNSC** by advocating for **improved representation of Africa** and promoting the **Common African Position**, which is based on the [Ezulwini Consensus](#) and the [Sirte Declaration](#).
 - The **Ezulwini Consensus**, agreed by the African Union in 2005, seeks to reform the UNSC by providing **Africa with 2 permanent seats with veto power** and **5 non-permanent seats**, aiming for **enhanced representation** and democracy.
 - The **Sirte Declaration (1999)** was the resolution adopted to establish the African Union and address **peace and security issues across the African continent**.
- **G-4 Grouping:**
 - The [G4](#) is a grouping of **Brazil, Germany, India and Japan** which are **aspiring to become permanent members of the UNSC**.
 - It was created in 2004 and has been promoting **UN Security Council Reforms**.
 - The G4 countries are **backing each other's efforts for permanent UNSC membership** and typically hold meetings during the **annual high-level UN General Assembly (UNGA) session**.

Intergovernmental Negotiations (IGN)

- IGN is a **group of nation-states working (informally) within the UN to further reform of the United Nations Security Council (UNSC)**
- The IGN is composed of several different international organisations.
 - [African Union](#)
 - **G4 nations**
 - [Uniting for Consensus Group \(UfC\)](#)
 - [L.69 Group of Developing Countries](#)
 - **Arab League**
 - [Caribbean Community \(CARICOM\)](#).



UN Security Council (UNSC)

The UN Charter vests the primary responsibility for maintaining international peace and security to the UNSC

About

One of the 6 principal organs of UN; established in 1945 by UN Charter

Headquarters

New York City

First Session

17 January 1946 at Church House, Westminster, London

Membership

- 15 members - 5 Permanent Members (P5), 10 Non-Permanent Members elected for two-year terms (5 elected each year)
- P5 - the US, the UK, Russia, France and China

Presidency

- Rotates every month among the 15 members
- India's Presidency for year 2022 - December

Voting Powers

- 1 member = 1 vote
- P5 have veto power
- Members of UN sans membership of UNSC participate without vote

UNSC Committees/Resolutions

Terrorism

- Resolution 1373 (Counter Terrorism Committee)
- Resolution 1267 (Da'esh and Al Qaeda Committee)

Non-Proliferation Committee

- Resolution 1540 (against nuclear, chemical and biological weapons)

India and UNSC

- Served 7 times as non-permanent member; elected for the 8th time for 2021-22; advocates for a permanent seat
- Arguments for a permanent seat:
 - 43 peacekeeping missions
 - Active participation in formulating Human Rights Declaration (UDHR)
 - India's population, territorial size, GDP, economic potential, cultural diversity, political system etc.



G4

Group of 4 countries (Brazil, Germany, India and Japan) which advocate each other's bids for permanent seats in the UNSC

Uniting for Consensus (UfC) Movement

- Informally known as the **Coffee Club**
- Countries oppose the expansion Permanent Seats of UNSC
- Prime movers of the club - Italy, Spain, Australia, Canada, South Korea, Argentina and Pakistan
- Italy and Spain are opposed to Germany's bid; Pakistan - India's bid; Argentina - Brazil's bid and Australia - Japan's bid

Major Challenges in UNSC

- Usual UN rules don't apply to UNSC deliberations; no records of meetings kept
- Powerplay in UNSC; anachronistic veto powers of P5
- Deep polarisation among P5; frequent divisions end up blocking key decisions
- Inadequate representation of many regions among of the world



Procedure for UN Security Council Reforms

- Reforming the UN Security Council requires amending the United Nations Charter, following a 2-stage process outlined in Article 108.
- First Stage:** The General Assembly must approve the reform with a two-thirds majority, or at least 128 out of 193 member states. This stage does not permit a veto, as per Article 27.
- Second Stage:** After the first stage approval, the UN Charter is treated as an international treaty and is amended.
 - The amended Charter needs to be ratified by at least two-thirds of the member states, including all P5 members, following their national procedures.
 - During this stage, the ratification can be influenced by the Parliaments of the P5 members, which may impact when the amended Charter takes effect.

What are Key Highlights of External Affairs Minister Speech at the 79th UN General Assembly (UNGA)?

- **Reform of Multilateralism:** India supported the theme of the 79th UNGA, "Leaving no one behind" by calling for **reforming international systems** and highlighting the **need for equitable contributions and restoring trust** to ensure global peace and prosperity.
- **India's Initiatives:** India shared its initiatives such as
 - **Focus on vulnerable groups** (women, farmers, youth) through targeted policies.
 - Expansion of **employment and entrepreneurship opportunities**.
 - Creation of **replicable governance models** and **digital infrastructure**.
 - Convening **Global South Summits** to amplify shared concerns.
- **Call for Unity:** India called the member states to come together, share resources, and strengthen resolve to create positive change in the world.
- **Condemnation of Terrorism:** India condemned **Pakistan's radicalization and ties to terrorism**, emphasising that the central issue is Pakistan's occupation of Indian territory and its long-standing support for terrorism.
 - India underscored the need for the **United Nations (UN)** to **sanction terrorists without political interference**, hinting at China's role in blocking such actions.
- **Economic Practices and Sovereignty:** India criticised **unfair economic practices** and **infrastructure projects**, particularly the [China-Pakistan Economic Corridor \(CPEC\)](#), stating that connectivity that undermines sovereignty must be approached with caution.
- **Calls for Global Solutions:** India urged the international community to seek **urgent resolutions to ongoing conflicts** such as the [Russia-Ukraine War](#) and [Gaza conflict](#), avoiding a fatalistic mindset.

Read More: [UN Summit of the Future and the Reform in UN Institutions](#)

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. The Security Council of UN consists of 5 permanent members, and the remaining 10 members are elected by the General Assembly for a term of (2009)

- (a) 1 year
- (b) 2 years
- (c) 3 years
- (d) 5 years

Ans: (b)

Q. How is the United Nations Monetary and Financial Conference wherein the agreements were signed to set up IBRD, GATT and IMF, commonly known? (2008)

- (a) Bandung Conference
- (b) Bretton Woods Conference
- (c) Versailles Conference
- (d) Yalta Conference

Ans: (b)

Q. With reference to the International Monetary and Financial Committee (IMFC) consider the following statements: (2016)

1. IMFC discusses matters of concern affecting the global economy, and advises the International Monetary Fund (IMF) on the direction of its work.
2. The World Bank participates as observer in IMFC's meetings.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only

- (c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (c)

Q. "Gold Tranche" (Reserve Tranche) refers to (2020)

- (a) a loan system of the World Bank
(b) one of the operations of a Central Bank
(c) a credit system granted by WTO to its members
(d) a credit system granted by IMF to its members

Ans: (d)

Mains

Q. Discuss the impediments India is facing in its pursuit of a permanent seat in the UN Security Council. (2015)

SC Warns Against Routine CBI Probe

For Prelims: [High Court \(HC\)](#), [Supreme Court](#), [Central Bureau of Investigation \(CBI\)](#), [Delhi Special Police Establishment \(DSPE\) Act](#), Santhanam Committee on Prevention of Corruption, [Prevention of Corruption Act](#)

For Mains: Issues Related to CBI and Recommendations, Issues Related to Division of Power between Union and States and Use of Central Agencies in States

Source: [HT](#)

Why in News?

Recently, the [Supreme Court](#) has criticised the [Calcutta High Court \(HC\)](#) for not providing sufficient reasoning for transferring the investigation from the state police to the [Central Bureau of Investigation \(CBI\)](#) underlining that such decisions **should not be routine** but reserved for specific, compelling reasons.

What are the Regulations Regarding Use of CBI in the State?

- **Background:** Recently, Calcutta HC ordered a [CBI](#) investigation into alleged irregularities in recruitment within the **Gorkhland Territorial Administration (GTA)** area which was challenged by the West Bengal government.
- **Supreme Court Orders:** SC sets aside the Calcutta HC's order for a CBI investigation into the case based on a few reasons.
 - **Exceptional Circumstances:** CBI investigations should **only be ordered in exceptional circumstances** where there is **clear evidence** indicating that the state police cannot conduct a fair investigation.
 - **Judicial Restraint:** The court underscored the importance of judicial restraint, stating that **high courts must provide explicit reasons** for transferring investigations to the

CBI.

▪ **Related Judgments Regarding Use of CBI:**

- **CBI vs Rajesh Gandhi Case, 1997:** Supreme court stated that cases should only be entrusted to the CBI when **local police investigations are deemed unsatisfactory**.
 - Also, the **accused cannot decide for the** agency to investigate the matter.
- **Vineet Narain vs. Union of India Case, 1997:** SC ruled on **corruption** and the **CBI's accountability**. It is also called the Jain Hawala scandal case.
 - SC **invalidated the 1969 "Single Directive" issued by the Union Government**, which outlined procedures for the CBI to initiate and register cases.
 - The Court's ruling **strengthened the independence of investigative agencies** by ensuring they operate without political interference and established guidelines for accountability and transparency in handling high-profile corruption cases.
- **CBI v. Dr. R.R. Kishore Case, 2023:** SC declared that **Section 6A of the DSPE Act is unconstitutional and void** from the date it was added in 2003.
 - This ruling addresses the **retrospective implications of declaring a law unconstitutional**.
- **CPIO CBI vs. Sanjiv Chaturvedi Case, 2024:** Delhi HC ruled that the **CBI is not fully exempt** from the Section 24 of [Right to Information \(RTI\) Act](#).
 - The court stated that the **CBI must disclose information regarding corruption and human rights violations**, except for "sensitive investigations."

How does the Central Bureau of Investigation (CBI) Functions in India?

▪ **About:**

- The CBI was established through a resolution from the **Ministry of Home Affairs** and was subsequently transferred to the **Ministry of Personnel, Public Grievances, and Pensions**, where it currently operates as an attached office.
- Its establishment was recommended by the [Santhanam Committee on Prevention of Corruption](#).
- It derives its power under the [Delhi Special Police Establishment \(DSPE\) Act, 1946](#).
 - It is **neither a constitutional nor a statutory body**.
- It investigates cases related to **bribery, governmental corruption, breaches of central laws, multi-state organised crime, and multi-agency or international cases**.
- The Director of the CBI is appointed by the Central Government on recommendations from a three-member committee consisting of the [Prime Minister \(Chairperson\)](#), the **Leader of the Opposition** in the Lok Sabha and the [Chief Justice of India \(CJI\)](#) or a Supreme Court Judge nominated by the CJI.

▪ **Functioning of CBI:**

- **Provision of Prior Permission:** The **CBI needs prior approval from the Central Government** before investigating offences by officials at the joint secretary level and above.
 - However, a **2014 Supreme Court** ruling declared this requirement **invalid**, stating that **Section 6A of the DSPE Act**, which protected these officials from preliminary inquiries in corruption cases, violated [Article 14](#).
- **Consent Principle:** The CBI operates under **general and specific type of consent** for conducting investigations.
 - When a state grants **general consent** under **Section 6 of the Act**, the **CBI does not need to seek fresh approval each time** it enters the state for an investigation.
 - However, **if the general consent is revoked**, the **CBI must obtain specific consent** from the concerned state government for each investigation.
 - Without specific consent, CBI officials **lack the powers of police personnel** while operating in that state.

Read More: [Central Bureau of Investigation](#)

[Drishiti Mains Questions:](#)

Why has the Central Bureau of Investigation (CBI) been facing a crisis of credibility and confidence in recent times? Analyse the causes and consequences of this crisis and suggest measures to restore the public trust and reputation of the CBI.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. With reference to the Indian judiciary, consider the following statements: (2021)

1. Any retired judge of the Supreme Court of India can be called back to sit and act as a Supreme Court judge by the Chief Justice of India with the prior permission of the President of India.
2. A High Court in India has the power to review its own judgement as the Supreme Court does.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

Q. Consider the following statements: (2019)

1. The 44th Amendment to the Constitution of India introduced an Article placing the election of the Prime Minister beyond judicial review.
2. The Supreme Court of India struck down the 99th Amendment to the Constitution of India as being violative of the independence of judiciary.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

Q. With reference to the Constitution of India, consider the following statements: (2019)

1. No High Court shall have the jurisdiction to declare any central law to be constitutionally invalid.
2. An amendment to the Constitution of India cannot be called into question by the Supreme Court of India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Ans: (d)

Mains

Q. The jurisdiction of the Central Bureau of Investigation (CBI) regarding lodging an FIR and conducting a probe within a particular state is being questioned by various States. However, the power of the States to withhold consent to the CBI is not absolute. Explain with special reference to the federal character of India. **(2021)**

Bhagat Singh's Birth Anniversary

[Source: TH](#)

Why in News?

28th September 2024 marks the **birth anniversary of Bhagat Singh**, a legendary revolutionary whose spirit inspires generations in India. Celebrated as a national hero, he dedicated his life to fighting British colonial rule, leaving a legacy of courage and sacrifice.



Who was Bhagat Singh?

- **Birth:** **Bhagat Singh** was born on 28th September, 1907, in **Banga, Punjab, British India (now in Pakistan)**. He came from a Sikh family actively involved in anti-colonial activities; his father, **Kishan Singh**, and uncle, **Ajit Singh**, were prominent freedom fighters.
- **Early Life:** Witnessed the **Jallianwala Bagh massacre** at the age of 12, which instilled a deep sense of patriotism and a vow to fight for India's freedom.
- **Education:** Joined the National College, Lahore, founded by **Lala Lajpat Rai**, which emphasised **Swadeshi Movement** and provided a platform for revolutionary ideas.
- **Revolutionary Organisations:** Bhagat Singh became a member of the **Hindustan Republican Association (HRA)** in 1924, later renaming it the **Hindustan Socialist Republican Association (HSRA)** in 1928.

- **Naujawan Bharat Sabha was founded by Bhagat Singh in 1926**, aimed at mobilising youth for the freedom struggle.
- **Major Actions:** Involved in the assassination of police officer **J.P. Saunders in 1928 (Lahore Conspiracy Case)** as retaliation for Lala Lajpat Rai's death due to police brutality.
 - Threw a bomb in the Central Legislative Assembly on 18th April 1929, with B.K. Dutt to protest against repressive British laws.
- **Arrest and Trial:** Arrested in 1929 for the bomb incident and later charged with murder in the [Lahore Conspiracy Case](#). He was tried, convicted, and sentenced to death.
 - **Executed on 23rd March 1931**, along with fellow revolutionaries Sukhdev and Rajguru, in Lahore. Bhagat Singh is affectionately known as **Shahid-e-Azam**, the greatest of martyrs.
- **Literary Contributions:** Authored significant works, including ***Why I Am an Atheist, The Jail Notebook and Other Writings***, and several political manifestos advocating for socialism and revolution.
 - In his early work, ***Vishwa Prem (Universal Love)***, Singh proclaimed the importance of equality. He envisioned a world free of hunger and war, where humanity transcends boundaries of race and nationality.
- **Ideologies:** Advocated **Marxist** and socialist ideologies, emphasising rationalism, equality, and justice. Critiqued **organised religion**, viewing them as forms of mental and physical slavery.
- **Legacy:** Celebrated as a national **hero and martyr**; his birth anniversary and the date of his execution are observed annually to honour his contributions to India's freedom struggle.
 - Every year, **23rd March is observed as Martyrs' Day** as a tribute to freedom fighters **Bhagat Singh, Sukhdev, and Rajguru**.

What is the Relevance of Bhagat Singh's Ideologies in Today's World?

- **Universal Brotherhood:** Singh's idea of ***Vishwa Prem*** is promoting **global peace, equality, and cooperation** in a time of growing nationalism, racism, and economic disparities.
- **Communal Harmony:** His critique of communalism in his article ***Communal Riots and Their Solution*** holds relevance in contemporary India, where religious and communal tensions continue to **undermine social cohesion**.
- **Student Involvement in Politics:** Singh's call for students to engage in political discourse, as outlined in his article ***Students and Politics***, resonates with current debates about the **role of youth in addressing pressing social and political issues**.
- **Upliftment of Marginalized Communities:** Singh in ***The Problem of Untouchability***, article advocated for the empowerment of oppressed groups and dismantling caste hierarchies aligns with ongoing struggles for social justice and equality in India today.
- **Revolutionary Spirit:** Singh's view on revolution, outlined in his article ***What is Revolution?***, calls for the continuous **challenging of oppressive systems and reactionary forces**.
 - This idea remains applicable in modern movements for **political reform and social change globally**.

World Rabies Day 2024

[Source: TH](#)

Why in News?

[The World Rabies Day](#) is observed annually on **September 28** to promote reflection on past misconceptions surrounding this fatal disease, while also highlighting the **continued efforts to advance vaccines and modern strategies for rabies prevention and control**.

What is Rabies?

▪ About:

- It is a **viral, vaccine-preventable zoonotic disease**.
- It is caused by a **Ribonucleic Acid (RNA) virus** that is **present in the saliva** of a **rabid animal (dog, cat, monkey, etc)**.
- It is primarily transmitted to humans through bites from infected dogs, and despite being entirely preventable with timely vaccinations.
- Once clinical symptoms appear, rabies is **virtually 100% fatal**. The death invariably occurs in **four days to two weeks** due to **cardio-respiratory failure**.
 - The **incubation period varies from 2-3 months** but may vary from 1 week to 1 year, or rarely even more.

▪ Symptoms: The first symptoms of rabies may be similar to flu and may last for a few days.

- **Symptoms included:** Fever, Headache, Nausea, Vomiting, Anxiety, Hyperactivity, Difficulty swallowing, Excessive salivation, Hallucinations (illusions), Insomnia (sleep disorder).

What do we Need to Know About World Rabies Day (WRD)?

▪ About:

- It was first launched in 2007. It marks the death anniversary of **Louis Pasteur**, who developed the first rabies vaccine.
 - Louis Pasteur was a **French chemist, pharmacist, and microbiologist** renowned for his discoveries of the principles of **vaccination, microbial fermentation, and pasteurisation**.
- The **World Health Organisation (WHO)** has set an **ambitious goal to eliminate dog-mediated rabies by 2030**.

▪ Theme:

- The theme for WRD 2024 is '**Breaking Rabies Boundaries**'.
- It emphasises the One Health approach, which stresses the importance of collaboration between human health, animal health, and environmental sectors.

What are Facts About Rabies in India?

▪ Rabies in India:

- In **2021, rabies in India accounted for 59,000 deaths**, constituting 35% of the global total, with **96% of these cases stemming from dog bites**.
- The **economic burden of dog-mediated rabies** in India was estimated at **USD 8.6 billion**.
- **Newer rabies immunoglobulin (Rabies Ig)** vaccines are used for rabies prevention.

▪ India's National Action Plan for Dog Mediated Rabies Elimination (NAPRE):

- Unveiled in 2023 by the Ministry of Health and Family Welfare and Fisheries, Animal Husbandry and Dairying **to eliminate rabies by 2030**. It includes:
 - **Awareness:** Building awareness about rabies.
 - **Surveillance:** Strengthening surveillance and health systems.
 - **Vaccination:** Prophylactic vaccination for humans and dogs.
 - **Dog population management**
 - Real-time monitoring of rabies vaccine stocks and tracking of beneficiaries.

India's Initiatives for Cure Against Rabies

- **National Rabies Control Programme (NRCP)**
 - **Animal Birth Control (ABC) Programme**
 - **One Health Approach**
 - **Collaboration** WHO and **OIE** to strengthen rabies control measures and adopt international best practices.
-

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following diseases: (2014)

1. Diphtheria
2. Chickenpox
3. Smallpox

Which of the above diseases has/have been eradicated in India?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1, 2 and 3
- (d) None

Ans: (b)

Q. With reference to recent developments regarding 'Recombinant Vector Vaccines', consider the following statements: (2021)

1. Genetic engineering is applied in the development of these vaccines.
2. Bacteria and viruses are used as vectors.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

Bidkin Industrial Area

Source: PIB

Recently, the Prime Minister of India inaugurated **Bidkin Industrial Area (BIA)**, marking a significant step in advancing [India's industrial landscape](#), particularly in the Marathwada region of Maharashtra.

- **Strategic Location:** The BIA, a 7,855-acre transformative project, has been developed under the [National Industrial Corridor Development Programme \(NICDP\)](#) as part of the [Delhi-Mumbai Industrial Corridor](#).
 - It features excellent connectivity to NH-752E, Aurangabad railway station, Aurangabad Airport, and Jalna Dry Port.
 - NICDP is India's most ambitious infrastructure programme aiming to develop **new**

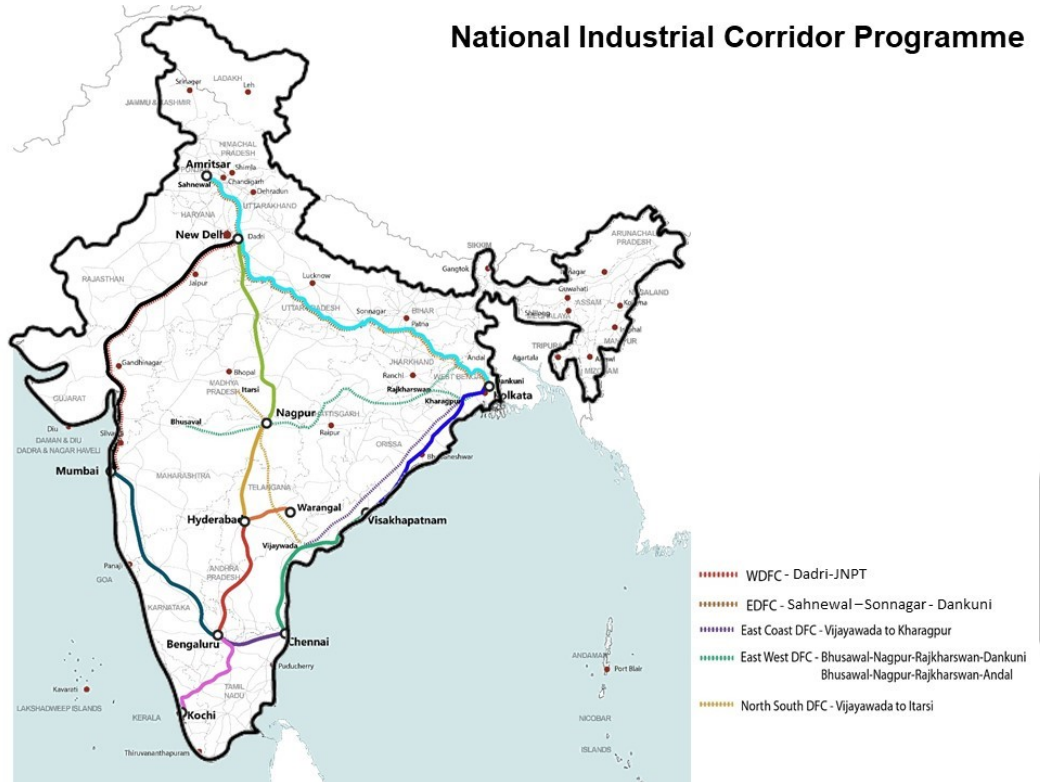
industrial cities as "Smart Cities" and converging next generation technologies across infrastructure sectors.

- **Phased Development:** The project, approved with a budget of Rs. 6,414 crore, will be developed in three phases.
 - The **Maharashtra Industrial Township Limited** with **Maharashtra Industrial Development Corporation** and **National Industrial Corridor Development and Implementation Trust** has driven this ambitious project.
- **Vision for Industrial Excellence:** The project aligns with the "**Make in India, Make for the World**" initiative, aiming to boost **employment**, exports, and sustainable development.

National Industrial Corridor Programme

11 Industrial Corridors:

- Delhi-Mumbai Industrial Corridor (DMIC)
- Amritsar-Kolkata Industrial Corridor (AKIC)
- Chennai-Bengaluru Industrial Corridor (CBIC)
- Vizag-Chennai Industrial Corridor (VCIC)
- East Coast Economic Corridor (ECEC)
- Hyderabad-Nagpur Industrial Corridor (HNIC)
- Hyderabad-Warangal Industrial Corridor (HWIC)
- Hyderabad-Bengaluru Industrial Corridor (HBIC)
- Bengaluru Mumbai Industrial Corridor (BMIC)
- Extension of CBIC to Kochi via Coimbatore
- Delhi-Nagpur Industrial Corridor (DNIC)



Read more: [Government Approved 12 New Industrial Smart Cities](#)

Impact of Permafrost Collapse on Himalayan Disasters

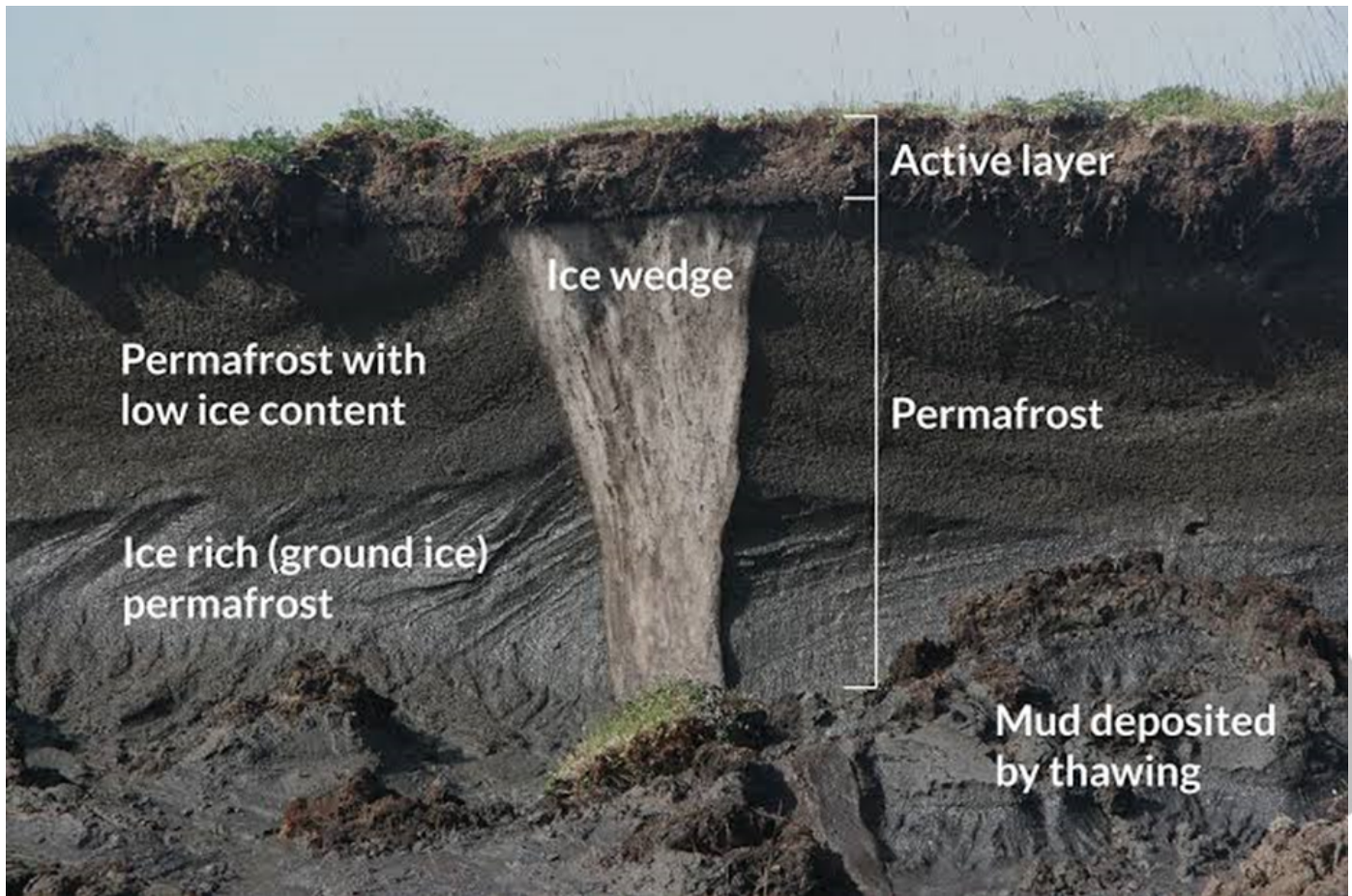
Source: TH

Glaciologists as a part of **India's Arctic Expedition**, are researching **permafrost** collapse to assess **disaster risks in the Himalayas** due to **climate change**.

- Permafrost is **ground that remains frozen at or below 32°F (0°C)** for at least two years, commonly found in **high-latitude and high-altitude regions**.
 - Permafrost is a combination of **soil, rocks, and sand held together by ice**, with frozen soil and ice year-round.
- **Global warming** leads to **permafrost thaw (the melting of permanently frozen soil or rock)**, causing fluctuations and potential ground collapse, which can affect infrastructure.
 - There is a significant **knowledge gap regarding the potential link between permafrost and disasters in the Indian Himalayas**, including recent events like the **South Lhonak glacial lake (Sikkim) bursting**.
- Glaciologists aim to **fill data gaps** by studying permafrost in Arctic regions, leveraging findings for

similar Himalayan topography.

- The goal is to create **awareness among local communities** for [early warning systems](#) and long-term infrastructure planning.



Read more: [Thawing Permafrost in Arctic and Industrial Contamination](#)

Kumki Elephants

[Source: TH](#)

Recently, **Andhra Pradesh (AP)** and **Karnataka** signed an MoU for the deployment of **trained elephants (Kumki) from Karnataka to control the elephant menace in AP.**

- It Includes deploying an **expert team for elephant capture, mahout training programs**, knowledge transfer, SOPs for darting (tranquillising) and capturing animals, nutrition and food, and workshops and seminars.
- Karnataka has transferred 62 kumki elephants to Uttar Pradesh, Chhattisgarh, Maharashtra, and other states.
- **Kumki:**
 - Kumki is a term used in India to refer to **trained captive [Asian elephants](#).**
 - They can **capture, rescue, and treat injured wild elephants**, as well as to drive them away from human settlements.
 - Some are **trained to follow commands and aid** in training other elephants.
 - They participate in **forest patrolling to support conservation** initiatives.
- India is home to about **60%** of the world's Asian elephant population, with an estimated 27,312

individuals as per the 2017 census and 138 identified [elephant corridors](#).

- Elephants have a **gestation period of about 22 months**, the longest of any land animal.
- Asian elephants (Indian) are classified as **Endangered** on the [IUCN Red List](#).

ELEPHANT

Drishti IAS

4 Main Species of Elephant

Species	Found in	IUCN Red List Status	Habitat
Indian	Asia	EN (CITES - Appendix I, WPA - Schedule I)	Subtropical broadleaf forest, tropical broadleaf moist forest, dry forest, grassland
Sumatran	Asia	CR	Broadleaf moist tropical forests
Savanna (Bush)	Africa	EN	All sub-Saharan Africa except for Central Africa's dense tropical forest
Forest	Africa	CR	Dense Tropical Forests

Indian Elephant (*Elephas maximus*)

Largest Land Mammal on Asian Continent
National Heritage Animal of India

- **Top 5 Indian States by Maximum Elephant Population:**
(As per elephant census 2017)
 - Karnataka > Assam > Kerala > Tamil Nadu > Odisha
- **Social Structure:**
 - Female elephants are more social than males; form herd (generally 5-7)
 - Led by the oldest female, the 'matriarch'
 - Males usually live alone

Threats:

- Habitat Fragmentation
- Poaching for Ivory
- Human-Elephant Conflict
- Mistreatment in Captivity

Conservation Efforts:

- Gaj Soochna App (2022)
- Gaj Yatra (2017)
- Hathi Mere Sathi campaign (2011)
- National Elephant Corridor project (2005)
- Monitoring the Illegal Killing of Elephants (MIKE) Programme (2003)
- Project Elephant (1992)

Read More: [Translocation of Elephants](#)

Globe Network

Source: TH

Recently, India was elected to the 15-member steering committee of the **Global Operational Network of Anti-Corruption Law Enforcement Authorities (Globe Network)**.

- **About Globe:**
 - The Globe Network is a **G-20 initiative, supported by India since 2020**.
 - It was established in 2021, during a special event at the [UN General Assembly Special Session against Corruption](#).
 - It is governed by its members and supported by the [United Nations Office on Drugs and Crime \(UNODC\)](#), which provides its **secretariat**.
 - It currently includes **121 member countries** and 219 authorities.
 - It consists of one chairman, one vice-chairman, and 13 members to guide its initiatives effectively.
 - It facilitates the **sharing of intelligence and best practices**, crucial for addressing **cross-border financial crimes**.
 - The **Ministry of Home Affairs (MHA)** is the central authority in India, with the [Central Bureau of Investigation \(CBI\)](#) and [Enforcement Directorate \(ED\)](#) as member authorities.
- **Other Efforts Against Corruption:**
 - **Global:**
 - [United Nations Convention against Corruption \(UNCAC\)](#)
 - [Transparency International's Corruption Perception Index \(CPI\)](#)

- [G20 Anti Corruption Working Group](#)
- **National:**
 - [Lokpal and Lokayuktas Act, 2013](#)

Read More: [United Nations Convention against Corruption \(UNCAC\)](#).

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