VAJIRAM & RAVI
Institute for IAS Examination

The Analyst

CURRENT AFFAIRS Handout

14th January 2025

The Analyst Handout

14th January 2025

Forest fires in Uttarakhand

CONTEXT: A forest fire has been raging for 5 days in the Valley of Flowers, Uttarakhand.

The Valley of Flowers

- ***National Park in 1982***
- ***UNESCO World Heritage Site***
- ***Part of the Nanda Devi Biosphere Reserve***
- ***Located b/w Zanskar Range and Great Himalayas***
- ***Flora:*** *Brahmakamal, Blue Poppy, Cobra Lily*
- ***Fauna:*** *Snow Leopard, Musk Deer, Asiatic Black Bear, and Red Fox*
- ***Pushpawati River flows through.***

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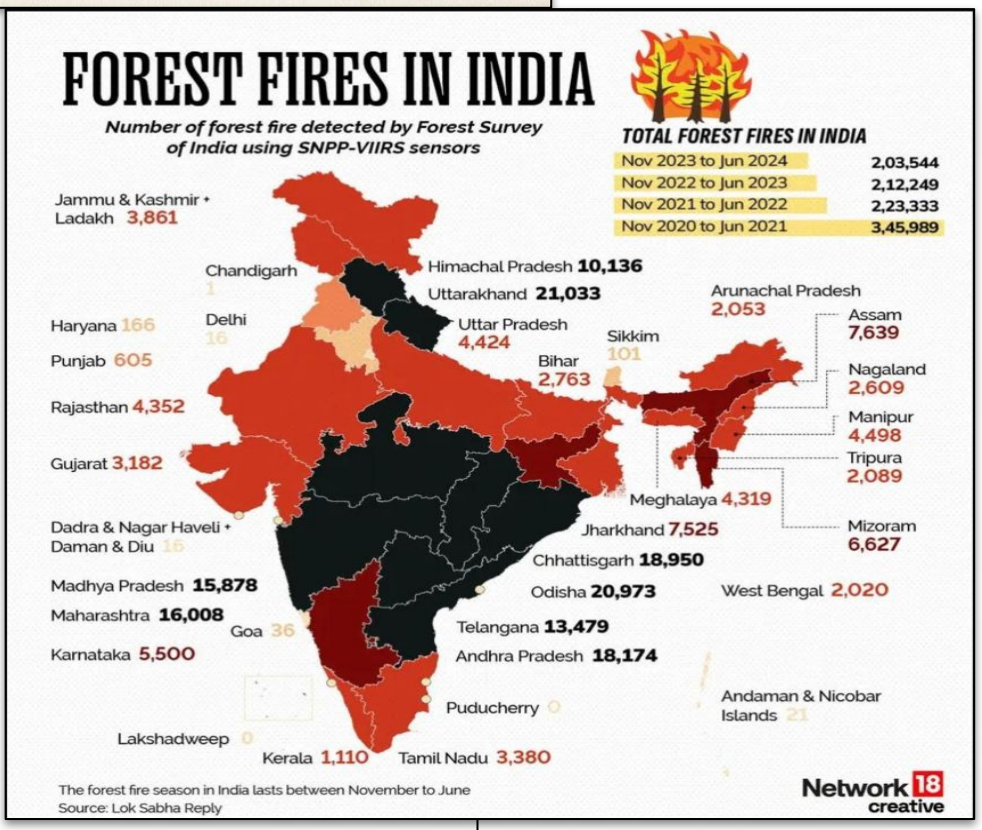
🔥🌳 Growing Menace of Forest Fires in India

Increase in fire incidents (20 years)	10× rise
Increase in **forest cover**	Only 1.12%
Forest **area prone to fire**	36% of India's forests
Annual **economic loss**	~₹1.74 lakh crore



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Forest fires in Uttarakhand

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Why are India's forests burning more?

Normally:

Forest fires in Uttarakhand occur:

- **February – June**
- Peak: **May–June**

But this fire happened in:

- **Early January**

This is abnormal and dangerous

*Hills received **little or no snowfall***

***Vegetation dried** early*

Forest floor** became **flammable

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Are all forest fires bad?

UPSC PYQ (P) 2019

Consider the following:

1. Carbon monoxide
2. Methane
3. Ozone
4. Sulphur dioxide

Which of the above are released into atmosphere due to the burning of crop/biomass residue?

(a) 1 and 2 only
(b) 2, 3 and 4 only
(c) 1 and 4 only
(d) 1, 2, 3 and 4

UPSC PYQ (M) 2014

Most of the unusual climatic happenings are explained as an outcome of the El-Nino effect. Do you agree?

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Forest fires in Uttarakhand

CONTEXT: A forest fire has been raging for 5 days in the Valley of Flowers, Uttarakhand.

Govt Initiatives to Control Forest Fires

Initiatives

- National Action Plan on Forest Fire + Forest Fire Prevention and Management Scheme
- Forest Protection Division
- Moderate Resolution Imaging Spectro- Radiometer @Aqua and Terra satellites
- FSI Van Agni Geo-Portal
- Gandhinagar Implementation Roadmap and the Gandhinagar Information Platform

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How to Ensure Sustainable Forest Management?

FOREST LEADERSHIP

Forest Department Conducts Van Darshini, Van Bhojanam and Fire Awareness Drive

Community-Centric Approaches	***Van Panchayats + JFMCs***
"Smart" Solution	***MODIS + SNPP-VIIRS + Thermal Imaging Drones***
Ecological Engineering	***Species to use:*** *Sal, Mahua, Jamun* ***Hilly Areas****: broad-leaved trees like Oak and Rhododendron* ***Mycelium Barriers*** *&* ***Bio-Bricks***
Tribal Empowerment	***Forest Rights Act, Seed Ball dispersal, Odisha's Similipal***
Climate-Resilient Forestry	***"No-Go" Zones 🚫, Underground Cabling***

✅ **Success Story (Case Study): Uttarakhand's Van Panchayats** reduced fire incidents significantly through community patrolling.

Mains Practise Question

Despite constitutional safeguards, forest fires in India are rising. Discuss the role of community participation and technology in mitigating this disaster.
(15 Marks, 250 words)

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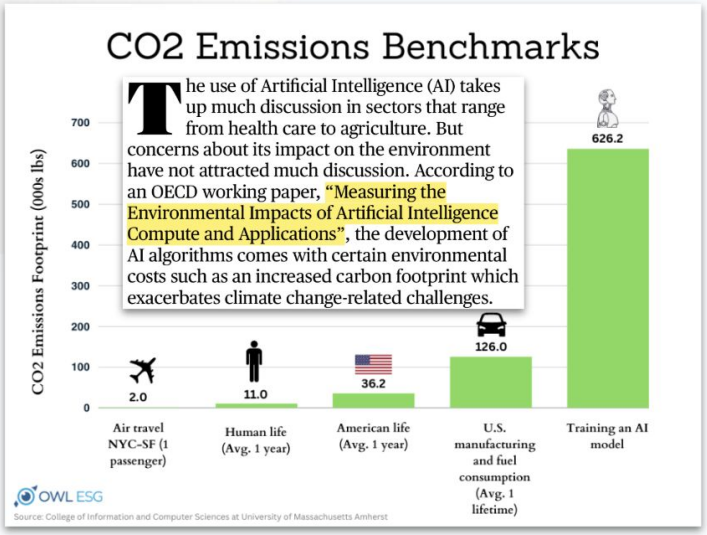
AI and Climate Change

CONTEXT: While we celebrate AI for solving problems, we rarely discuss the problem AI itself creates: Pollution.

Why does AI Pollute?



PBS

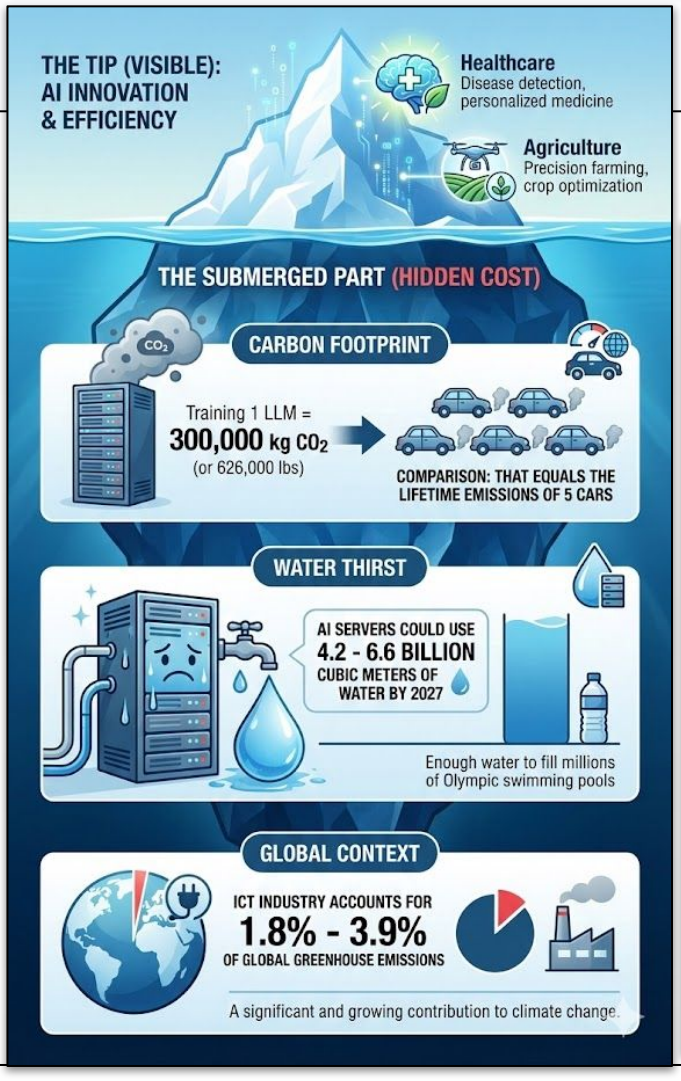
The growing environmental impact of AI data centers' energy demands

The EPA has reportedly drafted a plan to eliminate all limits on greenhouse gas emissions from power plants, according to documents obtained...

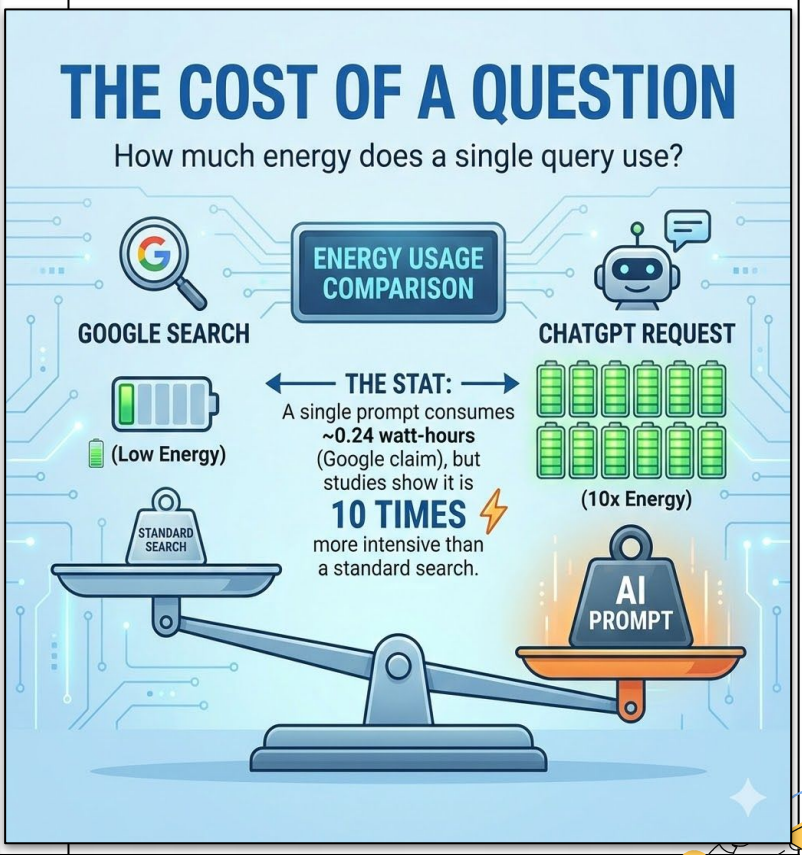
25 May 2025

How AI consumes energy

- GPUs 24/7 for months
- SERVERS' energy drain
- Cooling Problem



Real environmental cost of AI models



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AI and Climate Change

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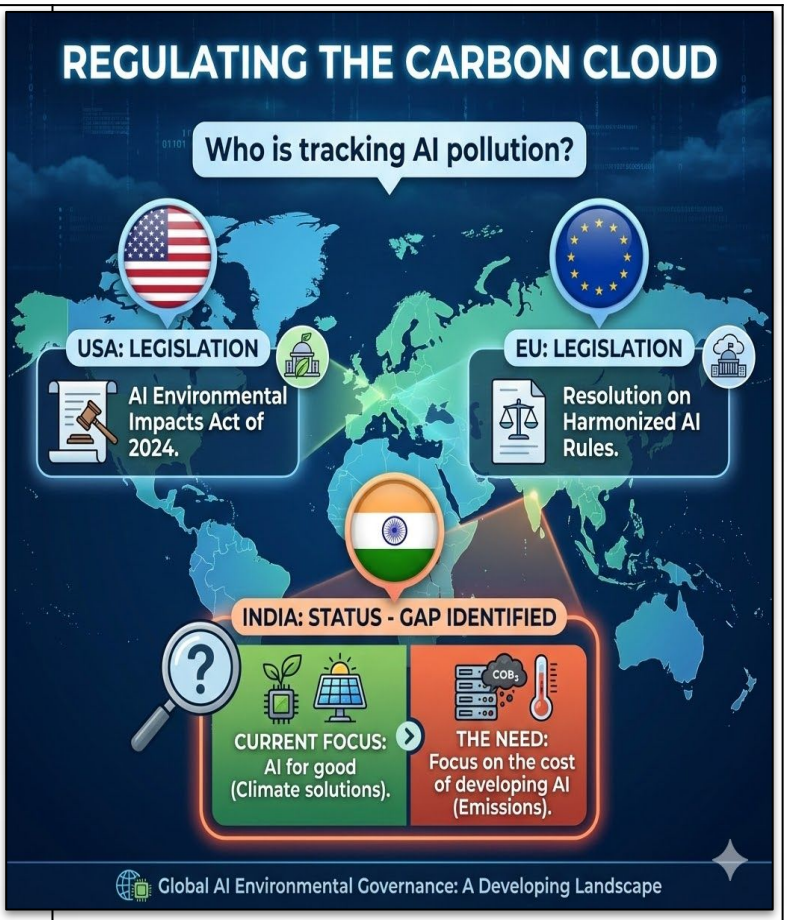
Why Google's low energy claim is misleading

- **Google** (Aug 2025) **claimed 1 AI prompt uses only 0.24 watt-hours**

Ignores:

- Cooling systems
- Data storage
- Network infrastructure
- Model retraining



Global Response: The World vs. India

UNESCO (2021)

Issued: **Recommendation on the Ethics of Artificial Intelligence**

It says:
AI must account for:

- Environmental damage
- Resource depletion
- Climate impacts

Adopted by **190 countries** (non-binding).

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AI and Climate Change

CONTEXT: While we celebrate AI for solving problems, we rarely discuss the problem AI itself creates: Pollution.

SOLUTIONS: What is missing in India?

- **Environmental Impact Assessment** → Large **AI data centres**; Training of **big AI models**; **Cloud computing** hubs
- **Create measurement standards** → **Rules/ Stds/ Formats**
- **AI sustainability metrics**
- **AI & ESG reporting** → **EU's Corporate Sustainability Reporting Directive**
  - Emissions from data centres
  - High-compute activities
  - LLM training

  MCA + SEBI

Category	What to track
Climate	GHG emissions
Energy	Electricity used
Water	Cooling & processing
Land	Data centre land use
Resources	Hardware & minerals

SOLUTIONS: What is missing in India?

- **Adopt Sustainable AI Practices** ♻️ → **Green Data Centers**; **Pre-trained Models**
- **Comprehensive Data Collection** 📊 → **Water Footprint** (for cooling).; **Land Use** (for huge data centers).; **Raw Materials** (rare earth metals for chips).

Another essential exercise is data collection which can be done by deploying sustainability metrics such as GHG emissions, energy, water and natural resources consumption that are utilised by AI algorithms. Environmental costs beyond energy, such as the impacts on freshwater and land use, could also be evaluated.

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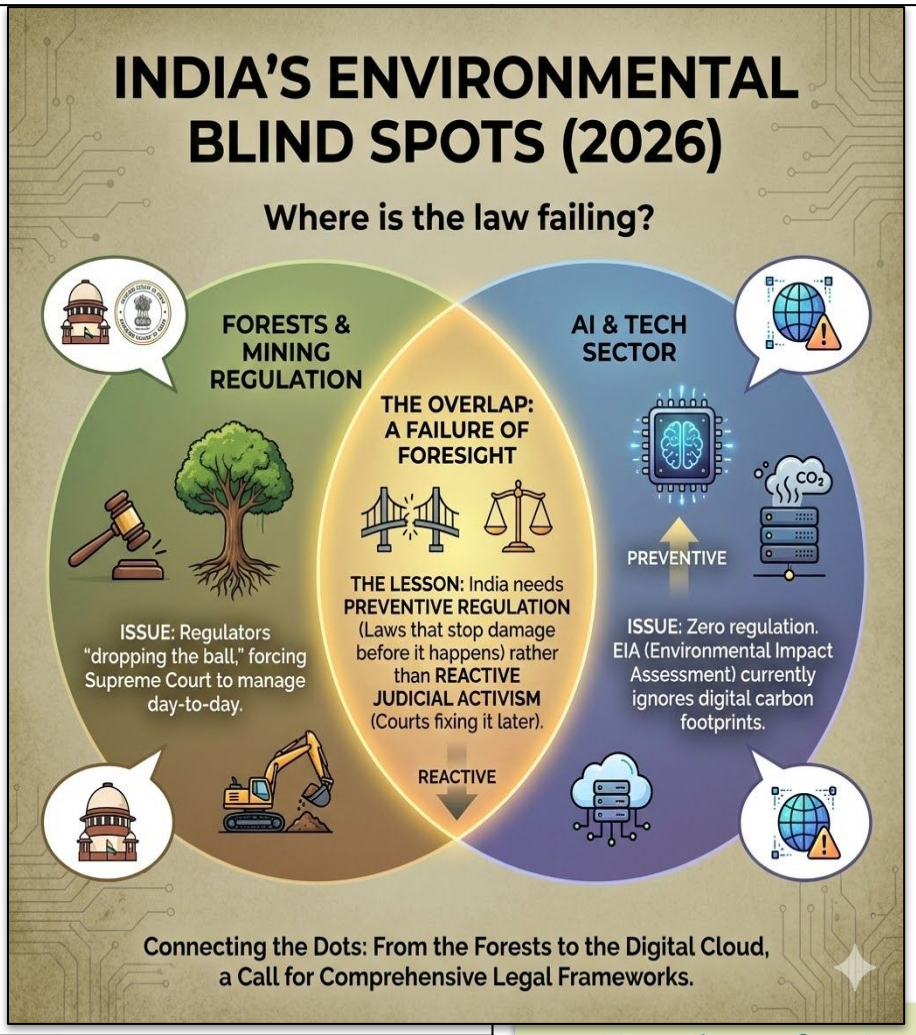
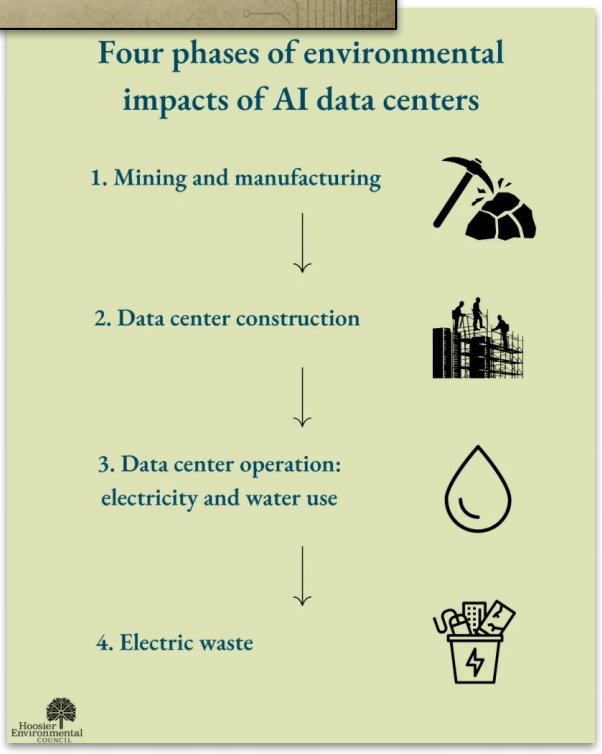


Mains Practise Question

India must urgently integrate AI into its environmental governance. Comment.
(15 Marks, 250 words)



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RTE (2009) and Equality

SYLLABUS : Prelims: Right to Education Act **GS 2:** Education
Newspaper: The Hindu **Page Number :** 14th

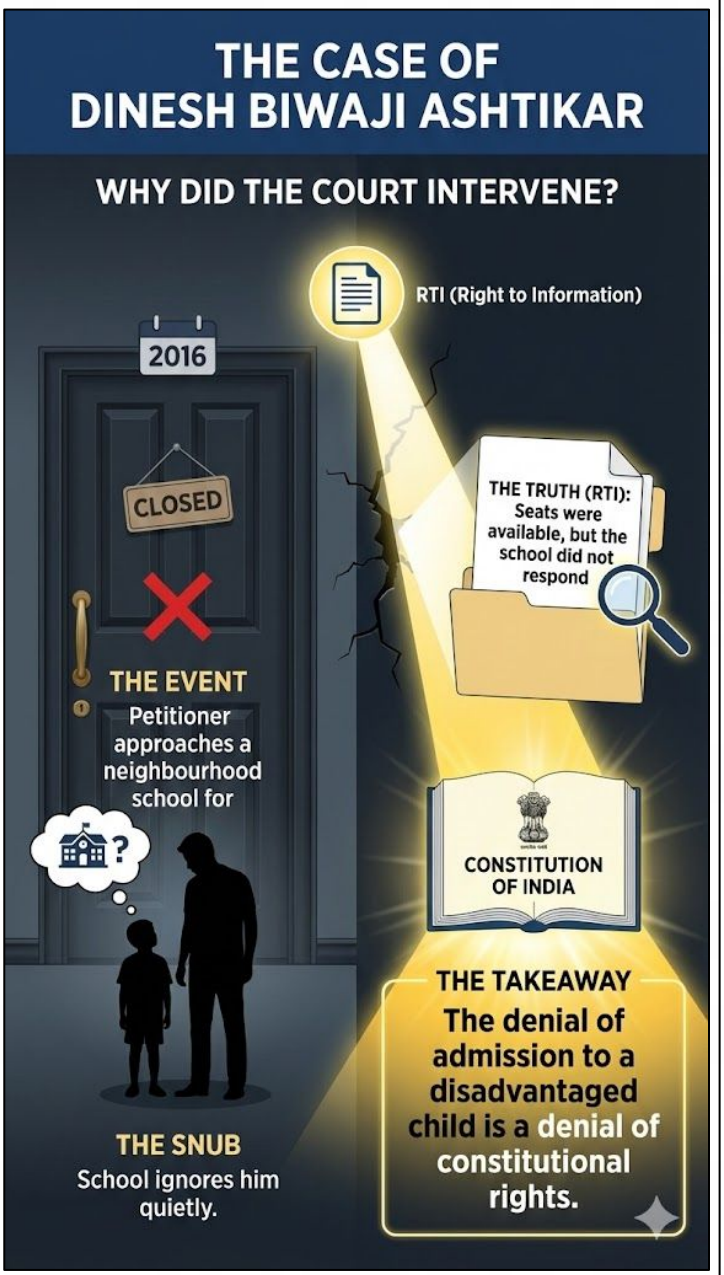
Background – RTE Act, 2009

ALL ABOUT RTE ACT

- It guarantees free and compulsory education at a neighbourhood school to children in the age group of 6 to 14 years (Classes I to VIII). It applies to all states except J&K
- It was passed by Parliament on August 6, 2009, and came into effect on April 1, 2010
- With the passage of the Act, India became one of 135 countries in the world that make education the fundamental right of every child
- The Act also provides for 25 per cent reservation in private schools for children from economically weaker sections
- It prohibits all unrecognised schools from practice (gives them three years to meet basic standards defined under the Act), and makes provisions for no donation or capitation fees and no interview of the child or parent for admission
- It provides that no child shall be held back, expelled, or required to pass a Board examination until the completion of elementary education

1993	*Unnikrishnan J.P. vs. State of Andhra Pradesh* **(A21)**
2002	***86th Amendment Act***
DPSP & Duties	***Article 45*** ***Article 51A(k)***
Prohibition of Malpractices	*Bans capitation fees, screening procedures (interviews) for admission, physical punishment, mental harassment, and private tuition by teachers.*
Norms and Standards	***Pupil-Teacher Ratios (1:30)*** ***Infrastructure standards***

Why is this Judgment "Transformative"?



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RTE (2009) and Equality

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🕵️ Why is this Judgment "Transformative"?

> The statutory design [of the RTE Act] is normatively ambitious. It envisages elementary education for all children, across the spectrum of class, caste, gender and economic position, in a shared institutional space. It makes it possible... for the child of a multi-millionaire or even of a judge of SC to sit in the same classroom... as the child of an autorickshaw driver or a vendor
>
> **SUPREME COURT JUDGMENT**

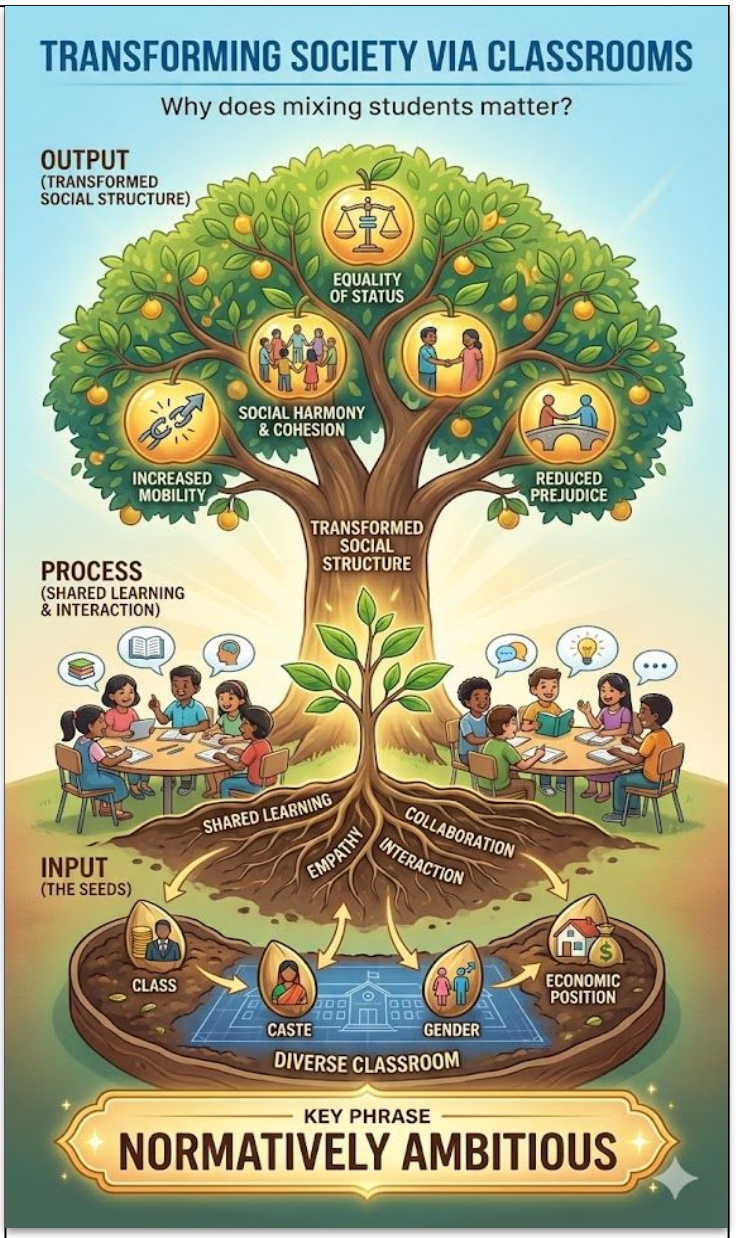
That **Private Unaided Schools** must reserve **25% of seats** in Class 1 for children from **EWS** and **Disadvantaged Groups** (SC/ST/Socially Backward)

The Supreme Court, in a judgment on Tuesday, said that equality in society had to start in school, where the child of a multi-millionaire or a Supreme Court judge had to sit shoulder-to-shoulder with a child of an autorickshaw driver or a street vendor.

"Shared institutional space"

"The statutory design [of the RTE Act] is normatively ambitious. It envisages elementary education for all children, across the spectrum of class, caste, gender and economic position, in a shared institutional space. It makes it

The judge observed that educating "young India" and achieving "equality of status" demanded an earnest implementation of the constitutional right under Article 21A to free and compulsory education, followed by the statutory mandate of the 2009 Act.



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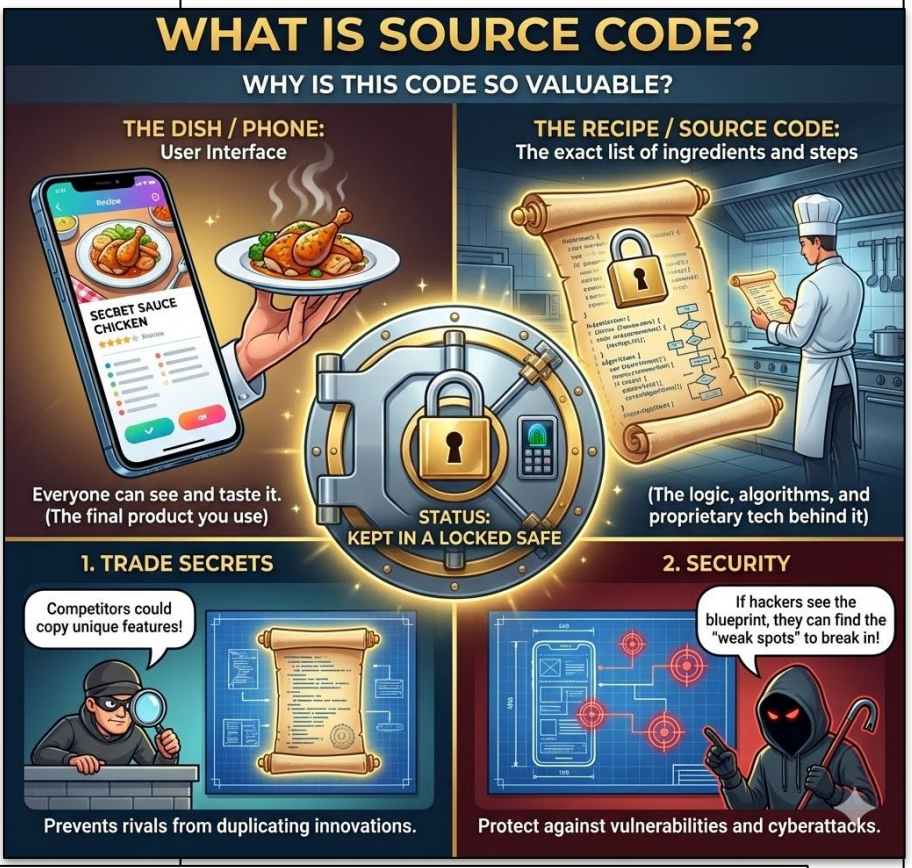
Phones' source code

SYLLABUS : Prelims General Science **GS 3 :** Cyber security
Newspaper The Hindu **Page Number :** 10

What is Source Code?

What is source code?
Source code is the core repository of software programmes and their associated digital assets that drives a digital system. While some parts of the code, especially of Android phones, is open to begin with, there are significant modifications and adaptations that phone manufacturers make to that codebase. Also, each firm jealously guards the technology driving these respective changes. Source code is kept secret not just for commercial reasons, but also as a security measure. If a software system's complete inner workings are visible to a malicious attacker, then the system is at risk of being probed for weaknesses that can be exploited, and can lead to data breaches and other types of cyberattacks.



Why is this Controversial?

The newswire agency *Reuters* reported that the Indian government was contemplating a requirement for smartphone makers to disclose their source code to third party testing agencies, and make this code open for review. A further requirement the agency reported was that phone makers would have to notify the government before pushing major software updates to user devices. The Union government has downplayed the nature of these conversations, and refuted the source code demand allegation.

BBC
Sanchar Saathi: India scraps order to pre-install state-run cyber safety app on smartphones
India scraps order to pre-install state-run cyber safety app on smartphones ... India has scrapped an order making it mandatory for smartphone...
1 month ago

01 ***Third Party Testing Agency***

02 "Apple Standard"

03 **Sanchar Saathi app**

04 **Chinese phones**

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SYLLABUS : Prelims General Science **GS 3 :** Cyber security
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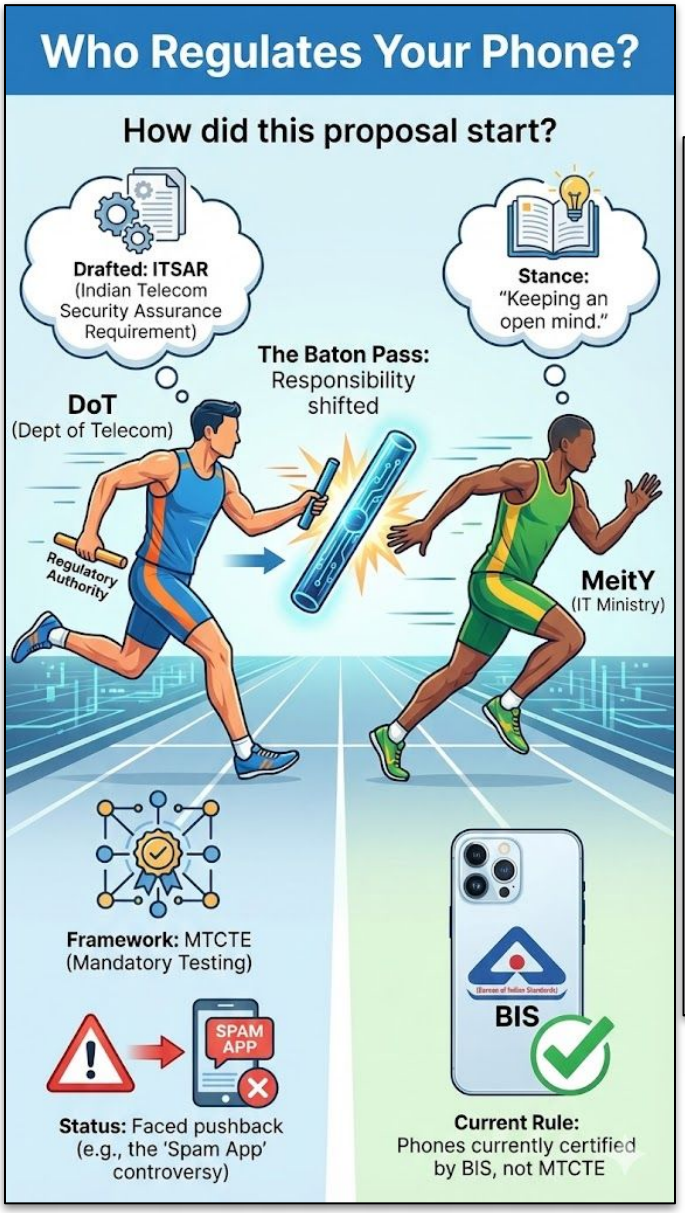

Bureaucratic Maze: DoT vs. MeitY

"ITSAR" Document

- ***National Centre for Communication Security*** *(under DoT) drafted in 2023*
- *Indian Telecom Security Assurance Requirement*
- Technical standard under the **Mandatory Testing and Certification of Telecommunication Equipment** framework
- **The Problem**: demanding source code review.

Shift to MeitY

- **BIS**
- **Telecommunications Act**, 2023
- **Regulating** smartphones = **MeitY**

The MTCTE framework stems from the Indian Telegraph (Amendment) Rules, 2017. However, shortly after the Telecommunications Act, 2023 was passed, the DoT and the Ministry of Electronics and Information Technology (MeitY) decided that the MTCTE regime should be done away with for smartphones, which already go through a certification process for India administered by the Bureau of Indian Standards. A senior MeitY official told *The Hindu* that since the baton had now been passed to the IT Ministry, the discussions

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Phones' source code

SYLLABUS : Prelims General Science **GS 3 :** Cyber security
Newspaper The Hindu **Page Number :** 10

🕵️ Civil Society Counter: "Where is the Transparency?"

off. A press statement by MeitY stated that the IT Ministry was keeping an "open mind" and would decide on what was best for the country and for consumers. The India Cellular and Electronics Association (ICEA), which represents some smartphone firms, also downplayed the seriousness of the discussions.

The Internet Freedom Foundation, a digital rights advocacy group, pushed back on that denial, pointing out that the meetings the government was holding were not transparently conducted, and that the ITSARs remain public.

"If the government claims these proposals do not exist, it must explain the specific documentation currently hosted on its own website and also disclose the minutes of meetings," IFF said in a statement.

"IFF asserts that "stakeholder consultation" cannot be limited to closed-door meetings with big tech giants. If the PIB's claim that "no final regulations have been framed" is true, then the government should have no hesitation in releasing the current draft of the ITSAR for public scrutiny immediately. We reassert the need for transparency and an open public consultation."

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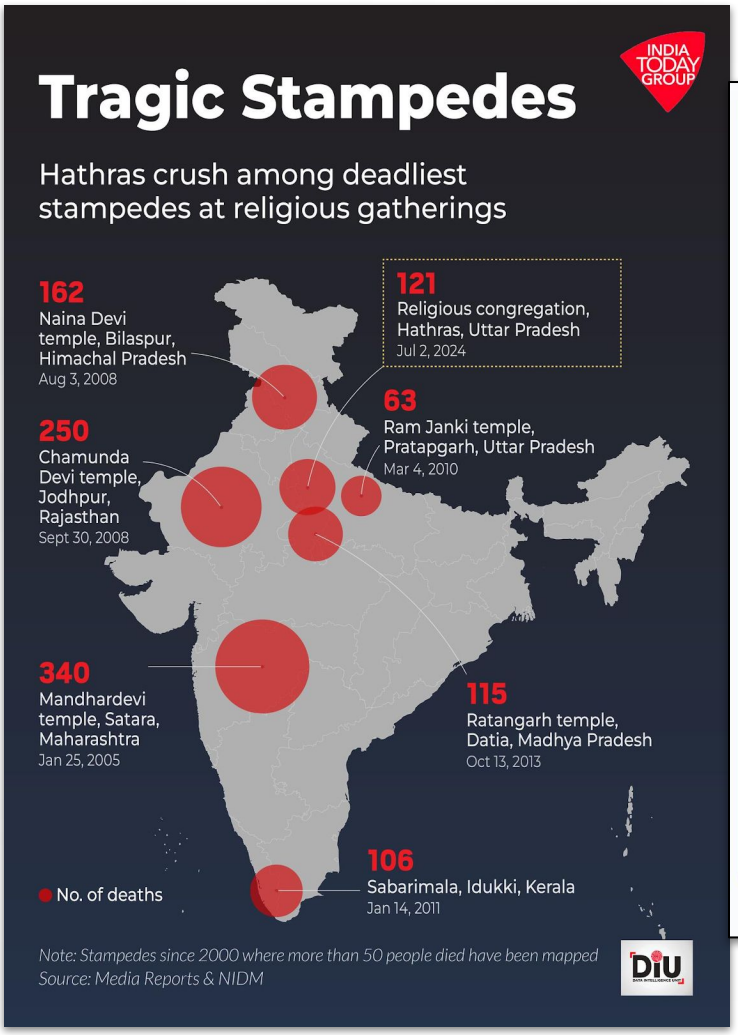
Protocols for large crowds

SYLLABUS : Prelims Crowd Management **GS 2 :** Governance/Law & Order **GS 3** Disaster Management

Newspaper The Indian Express **Page Number :** 10

Stampedes



What is a *Stampede* & its *causes*?

- **IJDRR (2013): 79% (1954-2012) @religious mass gatherings**
- **Structural Causes**
- **Lack of Coordination**
- **Crowd Behaviour**
- **Security Issues**
- **Fire/Electricity causes**

MHA's New Crowd Control Protocol

IN A bid to strengthen security and crisis management at events drawing large gatherings, the Union Home ministry is learnt to have instructed the police chiefs across states and Union Territories to clearly define responsibilities for event organisers and maintain detailed records of arrangements, experiences, and takeaways. *The Indian Express* has learnt.

"All the DGPs have been directed that special workshops should be organised by them after completion of mega events to analyse and discuss the arrangements for further improvement. Responsibilities should be explicitly assigned to avoid ambiguity during execution," an official said, speaking on condition of anonymity.

MAJOR STAMPEDES IN 2025

30 PEOPLE were killed and 60 injured at Prayagraj's Sangam area during the Maha Kumbh's 'Amrit Snan' on January 29

18 LIVES were lost at the New Delhi Railway Station on February 15 when they were waiting to board trains to Prayagraj for the Maha Kumbh

11 PEOPLE died on June 4 when fans tried to enter the Chinnaswamy Stadium to celebrate RCB's Indian Premier League (IPL) victory the previous day

41 LIVES were lost on September 27 during a political meeting addressed by actor-turned-politician Vijay in Karur, Tamil Nadu

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Protocols for large crowds

SYLLABUS : Prelims Crowd Management **GS 2 :** Governance/Law & Order **GS 3** Disaster Management

Newspaper The Indian Express **Page Number :** 10

📢 MHA's New Crowd Control Protocol

📌 Recommendations to avoid Stampedes

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Protocols for large crowds

SYLLABUS : Prelims Crowd Management **GS 2 :** Governance/Law & Order **GS 3** Disaster Management

Newspaper The Indian Express **Page Number :** 10

📌 Recommendations to avoid Stampedes

👮 1. Comprehensive Crowd Management Plan	Crowd Control **Manual**, 📹
🛑 2. Entry-Exit Flow Management	🚧, **RFID** wristbands
🗣️ 3. Real-Time Communication with Public	**Loudspeakers** & **LED** TVs
🏥 4. Mass Casualty Preparedness	🚑, 🧰
🔍 5. Accountability & Legal Deterrence	**Third-Party Audit Reports**
🕊️ 6. Devotee Education & Participation	🙏 Use **priests, volunteers,** and **religious leaders**

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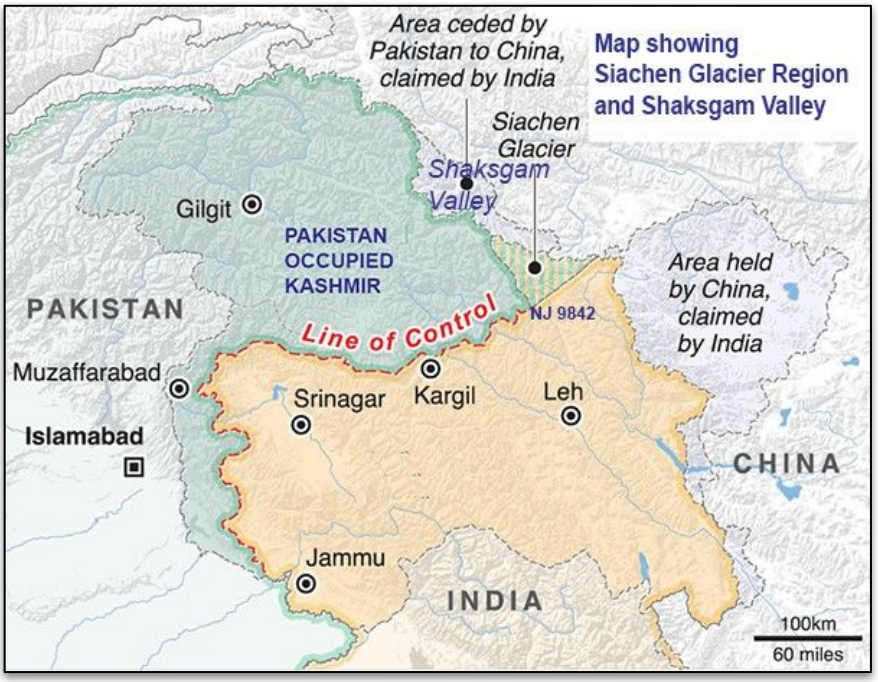
Shaksgam Valley & Indo-China angle

SYLLABUS : Prelims Mapping of Shaksgam Valley **GS 2** India & its Neighbors **GS 3** Border Management

Newspaper Indian Express **Page Number :** 23

🗺️ Geography of Shaksgam Valley



tation. While India has claimed Shaksgam Valley, Pakistan exercised control over it until 1963. China, for its part, has attempted to assert itself in the larger region even earlier. In the 1950s, it built a highway connecting Tibet with Xinjiang through Aksai Chin, over India's territorial claims.

- **Trans-Karakoram** Tract
- Part of **Hunza-Gilgit** region
- **Area**: ~ 5,180 sq. km

Legally: India (Part of Ladakh UT).

De Facto Control: China (1963).

Previous Controller: Pakistan (Before 1963).

📜 The Core Conflict: 1963 China-Pakistan Agreement

1950s	***China had already started encroaching on Aksai Chin***
1962	***India-China War***
1963	***Pakistan, signed a boundary agreement with China***

"Provisional" Clause (Article 6)

Legal loophole: agreement is **provisional**.

"After the settlement of the Kashmir dispute between Pakistan and India, the sovereign authority concerned will reopen negotiations with the Government of the People's Republic of China... to sign a formal Boundary Treaty."

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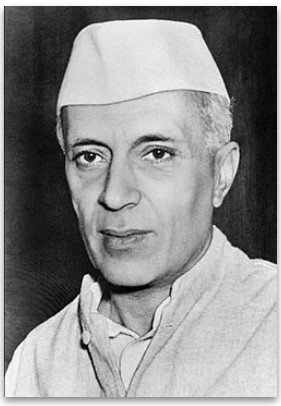
Shaksgam Valley & Indo-China angle

SYLLABUS : Prelims Mapping of Shaksgam Valley **GS 2** India & its Neighbors **GS 3** Border Management

Newspaper Indian Express **Page Number :** 23

🇮🇳 India's Objections



Nehru's Stand (1963)

- *"Interference"*
- *Reflection of China's "expansionist policy"*

Current Government Stand (2022-26)

- *"Illegal and Invalid"*
- *Rejection of CPEC*

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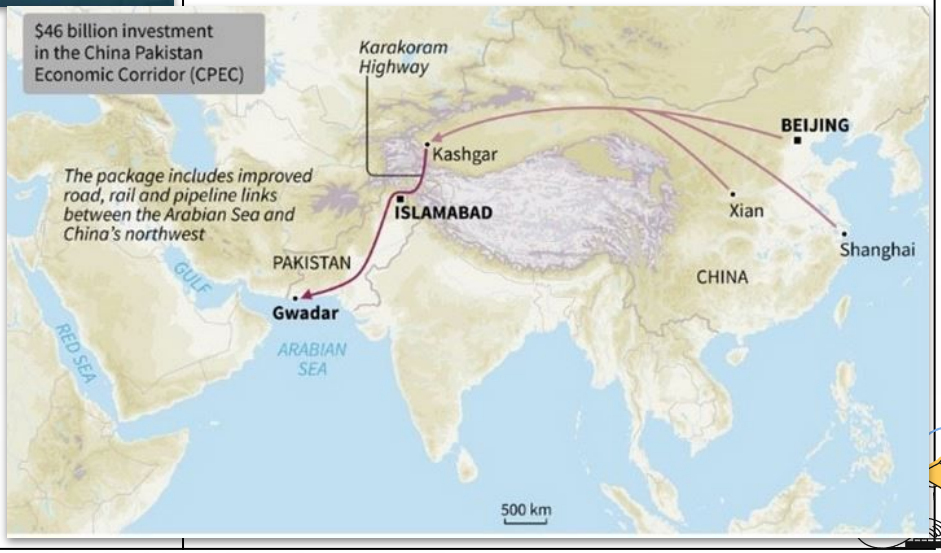
Shaksgam Valley & Indo-China angle

SYLLABUS : Prelims Mapping of Shaksgam Valley **GS 2** India & its Neighbors **GS 3** Border Management

Newspaper Indian Express **Page Number :** 23

The CPEC Connection: Why Shaksgam Matters Today

- CPEC connects **Kashgar (Xinjiang, China)** to **Gwadar Port (Pakistan)** via PoK.
- **China's Goal:**
  1. Bypass the **Malacca Strait**
  2. Shorten oil import routes from the Middle East.
- China has been building infrastructure (roads, posts) in Shaksgam to secure the flank of the CPEC.



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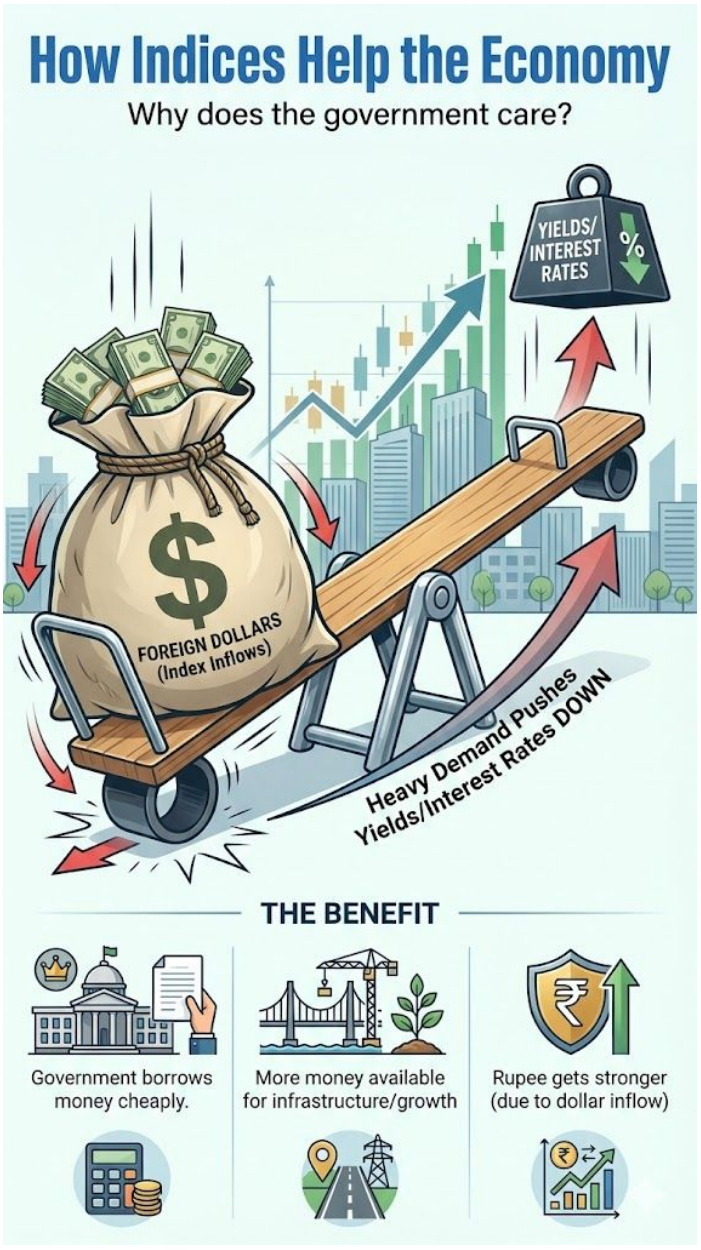
Global Aggregate Index

SYLLABUS : Prelims Bonds & Indices **GS 3** Significance of Index Inclusion
Newspaper The Indian Express **Page Number : 19**



What is a "Global Bond Index"? 🌍

The Playlist

Passive Investment

Over the last couple of years, Indian government debt — bonds it issues to borrow money from the market to cover its fiscal deficit, or the difference between its income and expenditure — has been added to several bond indices.

This began with JPMorgan adding India to its emerging market index beginning June 2024. Subsequently, Bloomberg included India in its Emerging Market Local Currency Index from January 2025 and FTSE Russell to a similar one from September 2025.

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Global Aggregate Index

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🕵️ Why was India Deferred?

3 specific Operational Hurdles

- **Lack of Automation**
- **"Post-trade tax processes"** **Settlement** and **Repatriation**
- **Registration Hassle**

IN A dampener for foreign inflows into India, Bloomberg Index Services Ltd (BISL) on Tuesday deferred the inclusion of Indian government bonds into the Bloomberg Global Aggregate Index, saying it will provide another update by mid-2026.

ingly. India's inclusion into the JPMorgan and Bloomberg emerging market index brought in billions of dollars of foreign money into the Indian government debt market, helping lower the interest paid by the Centre on its borrowings as demand for its bonds picked up due to these foreign buyers.

Broader Economic Stress

The "Flow" Problem *(Money leaving)* 💸	***EQUITY:*** *Foreigners pulled out net* ***₹1.66 Lakh Crore*** *in 2025* ***FDI:*** *Slightly better (****$6.2 Billion*** *in 8 months of FY26)*
	Bonds: *Inflows* ***Halved****. Dropped from ₹1.23 Lakh Crore (2024) to ₹55,590 Crore (2025).*
The Rupee & Reserves Crunch 📉	***US Tariffs (50%) widening Trade Deficit*** ***RBI Intervention?*** ***Forex Reserves dropped*** *by* ***$9.8 Billion*** *in one week* ***(Jan 2, 2026)***
The "Supply Shock" in Bonds 🏛️	***States*** *planning to* ***borrow*** *a record* ***₹5 Lakh Crore by March 2026.*** ***Poor Monetary Policy Transmission***

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Daily Quiz

Q1. With reference to the Valley of Flowers, consider the following statements:

1. It is a UNESCO World Heritage Site and forms part of the Nanda Devi Biosphere Reserve.
2. It is drained by the river Pushpawati, which is a tributary of the Alaknanda.
3. The Valley is situated in the state of Himachal Pradesh and is known for a high diversity of endemic alpine flora.

How many of the statements given above is/are correct?

a) Only One
b) Only Two
c) All Three
d) None

Answer: b

Q2. With reference to the Right of Children to Free and Compulsory Education (RTE) Act, 2009, consider the following statements:

1. The Act guarantees free and compulsory education to children in the age group of 6–14 years.
2. It mandates a 35% reservation for children from economically weaker sections in private schools.
3. The Act prohibits the requirement of passing any board examination until the completion of elementary education.

How many of the statements given above is/are correct?

a) Only One
b) Only Two
c) All Three
d) None

Answer: b

Q3. The Sakshgam (Shaksgam) Valley is located in which one of the following regions?

a) Between the Great Himalayas and the Zanskar Range in Ladakh.
b) In the Pir Panjal Range, drained by the Jhelum River.
c) Between the Himadri and Himachal ranges in Uttarakhand.
d) North of the Siachen Glacier, beyond the Karakoram Range.

Answer: d

Q4. With reference to the impact of inclusion in global bond indices on an economy, consider the following statements:

1. Index-linked foreign inflows raise demand for government bonds, which can lead to a decline in borrowing costs for the government.
2. Inclusion leads to strengthening of the domestic currency by augmenting foreign exchange availability.

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

Answer: c

Q5. Which of the following statements best describes the term "source code"?

a) A compiled set of machine-level instructions executed directly by computer hardware without human readability.
b) The complete set of commands curated by programmers, along with associated digital assets, that form the foundational instructions of a software system.
c) A publicly accessible software interface that allows different applications to communicate with each other.
d) An encrypted database used primarily to store user information and system logs.

Answer: b

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