7 PM COMPILATION

1st and 2nd week June, 2026

Features of 7 PM compilation

- Comprehensive coverage of a given current topic
- Provide you all the information you need to frame a good answer
- Critical analysis, comparative analysis, legal/constitutional provisions, current issues and challenges and best practices around the world
- Written in lucid language and point format
- Wide use of charts, diagrams and info graphics
- Best-in class coverage, critically acclaimed by aspirants
- Out of the box thinking for value edition
- Best cost-benefit ratio according to successful aspirants

INDEX

Issues Related to Prisons & Prison Reforms – Explained Pointwise 2
Summer Air Pollution – Causes & Consequences – Explained Pointwise 10
Adoption of EVs: Challenges and Solutions – Explained Pointwise 14
Startups in India – Explained Pointwise 21
El Nino: Concept & Impacts – Explained Pointwise 30
India-Indonesia Relations – Explained Pointwise 36
India's Foreign Trade Agreements (FTAs): Approach and Challenges – Explained Pointwise 43
India-Nepal Relationship – Explained Pointwise 50
Industrial Disasters – Causes & Way Forward – Explained Pointwise 56
Enforcement Directorate: Role & Criticisms – Explained Pointwise 64
India-France Relations – Significance & Challenges – Explained Pointwise 69
Insolvency & Bankruptcy Code – Features, Achievements & Limitations – Explained Pointwise 74

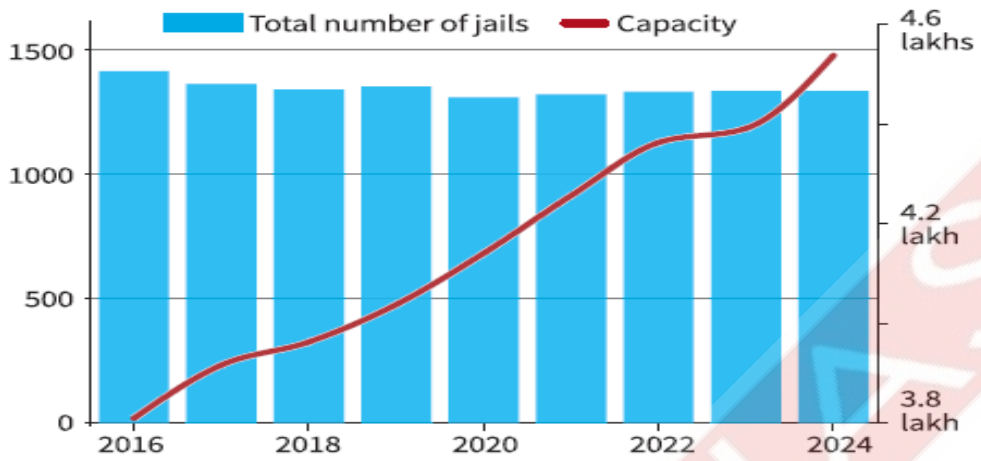
Issues Related to Prisons & Prison Reforms – Explained Pointwise

Recently, the National Crime Records Bureau released the **Prison Statistics India (PSI) 2024** report, providing a comprehensive overview of the country's prison administration, inmate population, infrastructure, and correctional systems. The report indicates a marginal improvement in prison overcrowding, with the national occupancy rate declining from 120.8% in 2023 to 112.7% in 2024. However, it also highlights persistent challenges such as a high proportion of undertrial prisoners, staff shortages, and inadequate correctional facilities, underscoring the need for deeper judicial and prison reforms in India.

What are the issues associated with Prisons in India?

1. Overcrowding: Although the occupancy rate in Indian prisons has declined to **112%**, according to the latest Prison Statistics Report, overcrowding continues to remain a persistent challenge. Till 2021, the occupancy rate of prisons stood at **130%** in 2021. More than half of the States/UTs had an occupancy rate of over 100% in 2024 despite a modest increase in capacity. A Parliamentary Committee report, titled '**Prison– Conditions, Infrastructure and Reforms**', noted that overcrowding strains resources, compromises living standards, increases tensions among inmates and limits their access to healthcare and rehabilitation facilities.

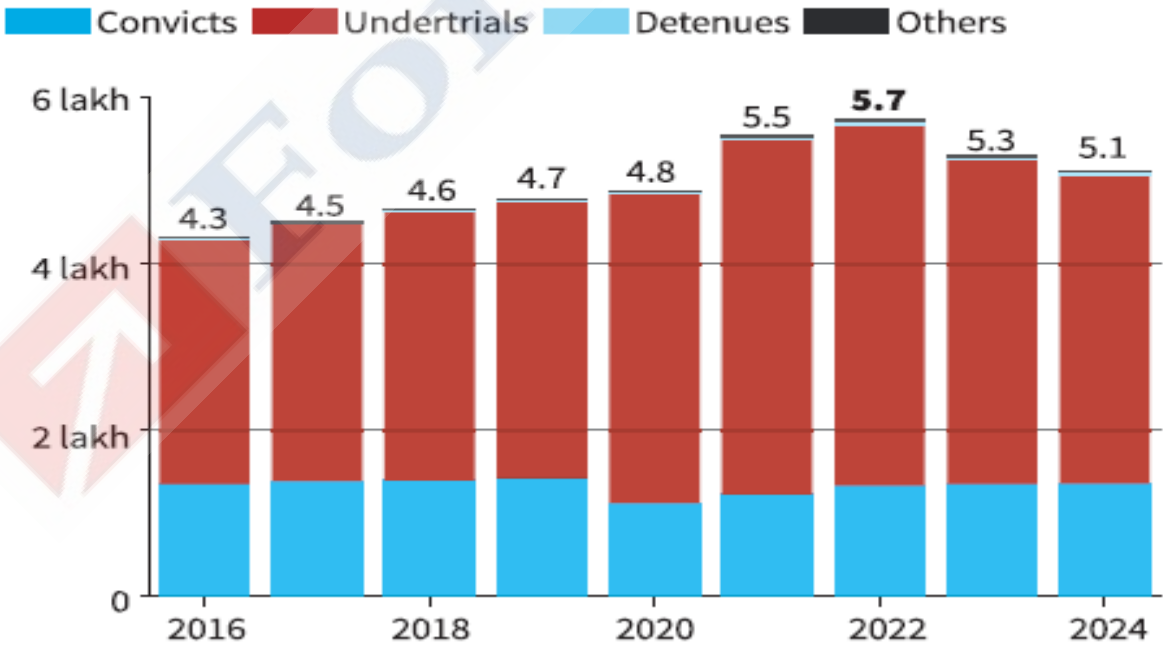
Chart 1: The total number of jails (left axis) and available capacity (right axis) at the end of each year

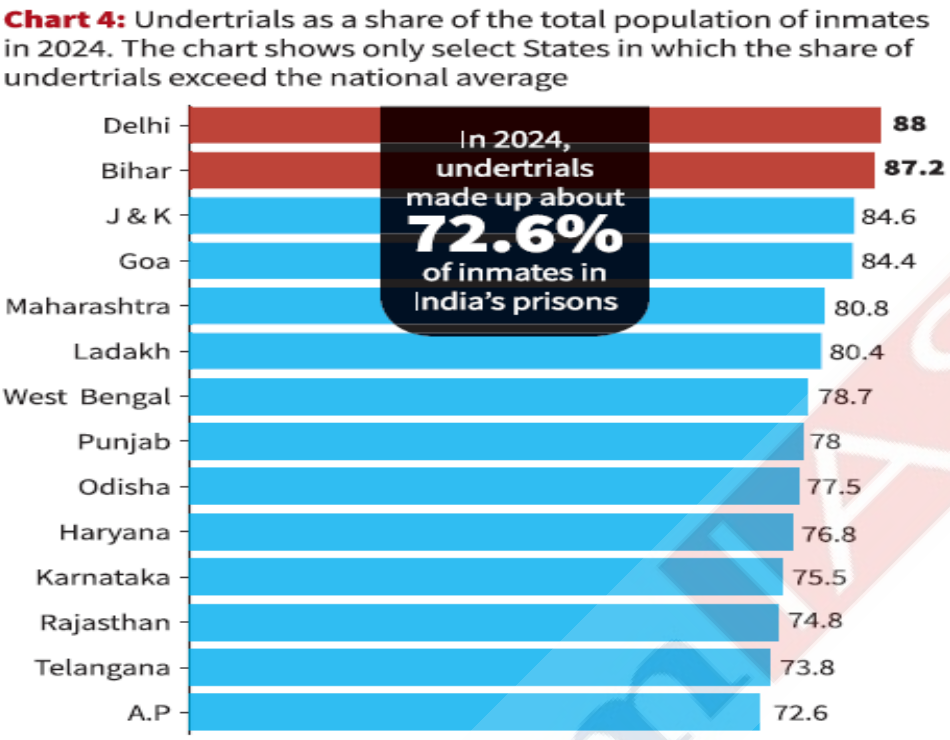


Source: The Hindu

2. Rising Undertrials: The number of undertrials in prisons has reached **73%** in 2024. The proportion has consistently increased from 64% in 2011 to 73% in 2024. On the other hand, the share of convicts in prisons reduced from about 32% in 2016 to **26.6%** in 2024. Prolonged incarceration without trial is violative of basic rights.

Chart 3: Types of prison inmates in jails between 2016 and 2024. Undertrials disproportionately form a higher share of inmates





Read More: Issue of Undertrials in India – Explained, pointwise

Rising proportion of undertrials is a major factor in overcrowding of prisons. Moreover, as highlighted by the NCRB data, people from disadvantaged sections have higher proportion in jails compared to more affluent sections. Legislations such as the Habitual Offenders Act and Beggary Laws allow the police to target SCs/STs for reported crimes.

3. Mistreatment and Torture: The prisoners, including undertrials, are forced to do hard work without pay or for very meagre compensation against the law. Many prisoners are subjected to torture. The cases of deaths while in custody are also increasing. Women inmates face harassment. Instances of custodial violence, physical abuse, and corruption by jail authorities remain a significant human rights concern.

3. Shortage of Staff: There is a massive gap between the sanctioned strength and the actual number of prison staff (including jailors, guards, and medical personnel), often leaving jails heavily understaffed. According to one estimate, **~33%** of of the total requirement for jail authorities remains unfilled. The number of prison staff to prisoners is about **1:7**. (i.e., one prison officer for every 7 prisoners). In the UK, there are 2 prison officers for every 3 prisoners. Without enough prison staff, overcrowding in the prisons leads to incidence of violence and other illegal activities.

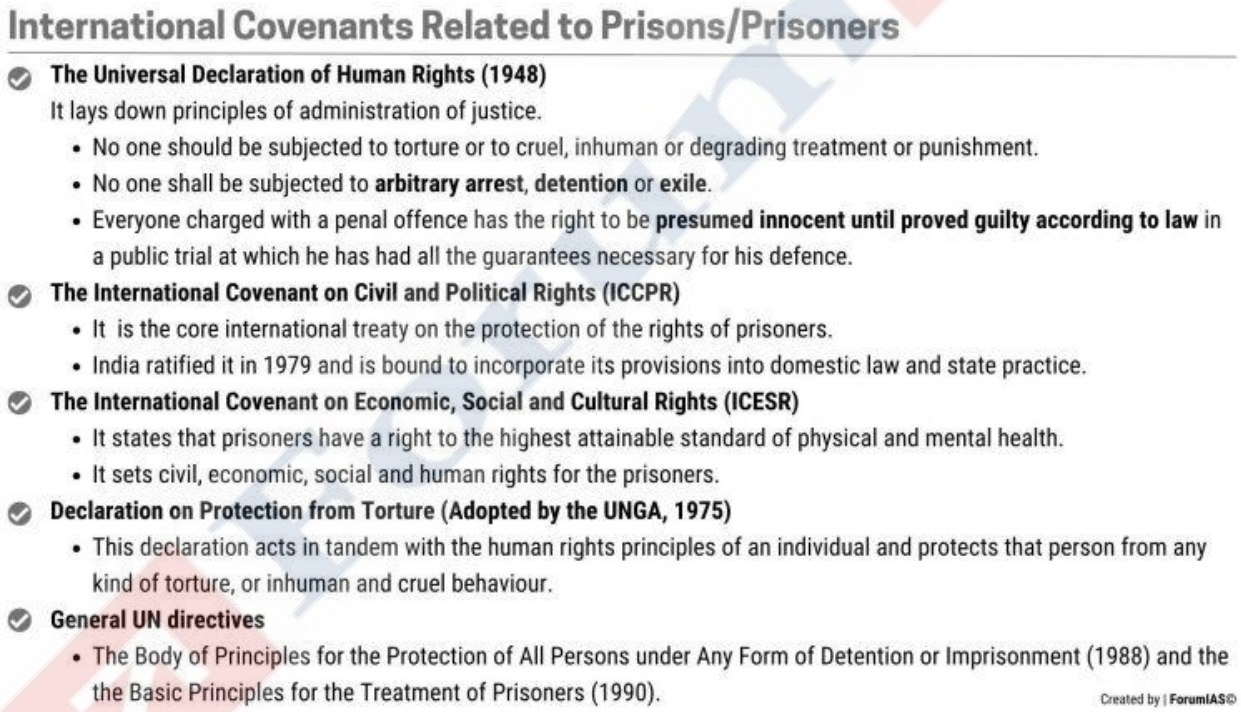
4. Poor Hygiene: Most prisons tend to be dirty and unhygienic. There is lack of adequate medical facilities. Women inmates face further challenge due to poor hygiene and lack of adequate facilities. Overcrowded and

poorly ventilated cells create a breeding ground for infectious diseases like tuberculosis, skin infections, and water-borne illnesses.

5. Psychological Issues & Mental Health Crisis: Prolonged incarceration without trial can lead to depression in undertrials. Convicts lodged in overcrowded cells may suffer from panic attacks, stress, anxiety and claustrophobia among others. The psychological toll of isolation, combined with a lack of recreational or counseling avenues, leads to high rates of depression and anxiety. Suicides remain the leading cause of unnatural deaths inside Indian prisons.

6. Inter-gang Rivalries and Violence: Due to the inability to properly segregate hardened, habitual criminals from first-time or petty offenders, violent clashes, extortion, and radicalization occur within prison walls.

7. Lack of Reformative and Rehabilitation Focus: The ultimate goal of modern penal systems is to reintegrate individuals into society, but Indian prisons often fail at this. Without proper societal reintegration frameworks, released prisoners often face intense stigma, leading to joblessness and a high risk of recidivism (falling back into crime).



What has been the Judicial view regarding Prison Reforms?

The Higher Judiciary has played a significant role in ensuring safety and security of the inmates and the people in custody.

Sunil Batra v. Delhi Administration (1978)	The Supreme Court held that **prisoners are entitled to all fundamental rights** which are consistent with their incarceration. Emphasizing the **need for humane treatment of prisoners** and protection of their basic human rights, the Supreme Court in **Sunil Batra II (1983)**, observed: **(a)** "Fundamental rights do not flee the persons as he enters the prison although they may suffer shrinkage necessitated by incarceration."; **(b)** The SC outlined the substantive and procedural rights to which the prisoners are entitled; **(c)** "Pushing the prisoner into a **solitary cell**, **denial of necessary amenities**, transfer to a distant prison where visits or society of friends or relations may be snapped, allotment of **degrading labour**, assigning him to a desperate or tough gang and the like, may be **punitive in effect**. Every such affiliation or abridgment is an **infraction of liberty or life** in its wider sense and cannot be sustained."
Hussainara Khatoon v. State of Bihar (1979)	Considered the bedrock of legal aid in India, this case brought to light the plight of thousands of undertrials rotting in Bihar jails for periods longer than the maximum sentence of their alleged crimes. The Court established that the **Right to a Speedy Trial** is an integral part of Article 21.
Rudal Shah v. State of Bihar (1983)	It was held that, if the trial against a prisoner concludes into acquittal the prisoner is entitled as a matter of right to be released forthwith. **After an order of acquittal, the person cannot be detained behind the prison walls**.
Sheela Barse v. State of Maharashtra (1983)	The SC (on a complaint of custodial violence to women prisoners in jails) directed that those helpless victims of prison injustice should be provided **legal assistance at the state cost** and **protected against torture and maltreatment**.
Sanjay Suri v. Delhi Administration (1988)	The SC held that the prison authorities should change their attitude towards prison inmates and **protect their human rights**.
DK Basu v. State of West Bengal (1997)	It was held that, the **information of arrest** is required to be given to the friend or relative of accused immediately, while he is arrested. The purpose is very clear that, by this communication the relative or friends of accused can start the efforts to know the facts of accused, to **obtain the legal advice** and take the defense against an application for remand and do the **necessary preparation for bail**.

Dharambir v. State of U.P (2010)	The SC directed the State Government to allow family members to visit the prisoners and for the prisoners at least once a year, to visit their families under guarded conditions.
Re Inhuman Conditions in 1382 Prisons (2016)	The Counsel for the Petitioner filed before the Supreme Court of India under Article 32 of the Indian Constitution to address the status of Prison reforms in India and to issue directions for prison reforms. The SC delivered a landmark judgment which regard to the legal and constitutional rights of prisoners in India especially the undertrial prisoners. The Prisoners are no less human than others and therefore must be treated with dignity. In compliance of the SC's directions, the **Model Prison Manual 2016** provides for **establishment of Under-trial Review Committee** among others.

What are the challenges to Prison Reforms?

1. **State Subject:** Prisons are a state subject, this creates difficulty in having uniform prison management. The Union Government can only frame models for the States to incorporate and help in coordinating between States, encouraging them to adopt best practices. However, ultimately it is the obligation of State Governments to undertake the reforms. Because prison reform does not carry significant political weight or electoral value, states often deprioritize it, leading to highly uneven progress across the country.
2. **Low Budget Allocation:** Budgetary allocations for prisons are among the lowest within the state home departments, with the lion's share of the existing budget spent purely on basic food, staff salaries, and essential security infrastructure.
3. **Punishment over Reformation:** Prisons in India are still governed by the **Prisons Act, 1894**. It is a colonial legislation which treats prisoners as sub-par citizens, and **provides the legal basis for punishment to be retributive**, **rather than rehabilitative.** Also, the administrative machinery and the public largely view prisons through a lens of retribution (punishing the wrongdoer) rather than restoration (reforming the individual).
4. **Colonial Subculture:** Much of the lower-level prison staff is trained under a culture of strict control, hierarchy, and subordination dating back to the 19th century. Shifting this mindset toward empathy and rehabilitation requires massive re-training, which is rarely undertaken.
5. **Failure of Legal Aid:** Although Section 12 of the Legal Services Authorities Act guarantees free legal aid to prisoners, the quality of state-appointed legal defense is often very poor. Many public defenders rarely visit jails to meet their clients, leaving poor undertrials languishing indefinitely.
6. **Lack of Transparency:** Civil society organizations, independent journalists, and human rights activists face heavy bureaucratic red tape when trying to access prisons to audit conditions, monitor custodial violence, or assess reform programs.

What are the various Committees and Recommendations regarding Prison Reforms?

Justice Mulla Committee (1983)	The All-India Committee on Jail Reforms, headed by Justice Anand Narain Mulla, is widely considered the **bedrock of modern prison reform** in India. It was the first to comprehensively advocate shifting from a punitive system to a reformative one. **Key recommendations**: 1. **National Prison Policy:** It recommended drafting a National Policy on Prisons to bring uniformity across different states. 2. **Segregation of Inmates:** It urged the strict separation of first-time offenders from hardened criminals, and political prisoners from routine convicts. 3. **Condition of Women:** It recommended setting up separate jails exclusively for women inmates, staffed entirely by female personnel. 4. **All-India Prison Service:** To professionalize jail management, it suggested creating an "All-India Prison Service" cadre (similar to IAS/IPS).
Justice V. R. Krishna Iyer Committee on Women prisoners (1987)	1. **Specialized Infrastructure:** It recommended that women should not be kept in ordinary police lock-ups or standard jails. Instead, exclusive women's prisons with female custodial staff should be mandatory. 2. **Restorative Handling:** It emphasized a humane approach to handling women inmates, focusing on their reproductive health, menstrual hygiene, and psychological well-being. 3. **Children of Inmates:** It laid down guidelines for young children living with incarcerated mothers, emphasizing their right to nutrition, healthcare, and basic education inside or near the jail premises.
All-India Committee on Prison Administration (1995)	1. **Drafting a Model Bill:** It strongly advocated replacing the archaic, colonial Prisons Act of 1894. 2. **Expansion of Open Prisons:** It recommended that "Open Jails" (minimum-security facilities where well-behaved inmates can work and live with semi-freedom) should be set up in every state to ease overcrowding and aid social reintegration.
Committee under the Chairmanship of Director General, Bureau of Police Research and Development (BPR&D) (2005)	• It used the reports of Justice Mulla Committee Report and Justice Krishna Iyer Committee and made several additional and new recommendations. • It also drafted a **National Policy on Prison Reforms and Correctional Administration, 2007**.

Justice Amitava Roy Panel on Prison Reforms (2018-2020)	The panel was appointed by the Supreme Court in 2018. The Committee submitted its report on February 2020. 1. **Overcrowding**: a. Special fast-track courts should be set up to deal with petty crimes; b. **Lawyers – Prisoners Ratio**: There should be at least one lawyer for every 30 prisoners; 2. **Understaffing**: a. The Supreme Court should pass directions to start the recruitment process against vacancies; b. There should be use of video-conferencing for trials; 3. **Prisoners**: a. Every new prisoner should be allowed a free phone call a day to his family members to see him through his first week in jail; b. Alternative punishments should be explored.

What should be the approach to Prison Reforms going ahead?

1. **Addressing the Root Cause: Overcrowding and De-congestion:** Jails cannot be reformed if they are physically overwhelmed. The focus must shift from managing overcrowded spaces to actively reducing the inmate population:
    a. **Strict Implementation of the Arnesh Kumar Guidelines:** Police forces must be strictly penalized for conducting arbitrary, routine arrests for offenses carrying sentences under 7 years.
    b. **Institutionalizing Section 436A of the CrPC/BNSS:** Undertrials who have served half of their maximum potential prison term must be released automatically on personal bonds. Modern jail management software should be programmed to flag these cases automatically to State Legal Services Authorities (SLSA).
    c. **Expanding Open and Semi-Open Prisons:** Rajasthan's successful model of open prisons—where well-behaved convicts live with their families and work in the community—should be scaled across every state. This significantly reduces the fiscal burden on the state and practically eliminates recidivism.
2. **Adopting the Model Prisons Act, 2023 across States**: Since "Prisons" is a State subject, the central government must incentivize states to adopt the **Model Prisons Act, 2023** to replace the archaic 1894 legislation. The Center should tie modernization grants and police-funding allocations directly to a state's progress in updating its State Prison Manual.
3. **Universalizing Legal Aid**: The inability to navigate the legal system keeps thousands of poor citizens trapped in jail. Legal counsel should be made available at the very first stage of production before a magistrate, ensuring that bail applications are moved immediately for petty or first-time offenders.
4. **Smart Security:** Utilizing advanced biometric tracking, AI-driven CCTV surveillance, and non-bypassable mobile phone jammers will neutralize internal gang networks and reduce corruption without requiring a massive influx of physical guards.
5. **Market-Relevant Vocational Training:** Prisons should move away from traditional, low-skill crafts (like weaving or basic carpentry) and partner with private industries or NGOs to provide certified training in digital literacy, mechanics, hospitality, or advanced agriculture.

6. **Adopting Global Standards**: The **UN's Nelson Mandela Rules** are serving as a blueprint, emphasizing the inherent dignity of prisoners. Training programs for prison staff on these rules are being conducted across states, focusing on ethical custodial practices and mental health support.

Read More: The Need for a Bail Law – Explained, pointwise

Conclusion:

The status of prisons in India remains dismal on multiple counts. The Supreme Court has pronounced some progressive judgments on the issue of rights of prisoners. Multiple committees have provided some effective recommendations to undertake prison reforms. However, the lack of political will by Union and State Governments has stalled the process. While Judiciary can also a play a role in reducing the number of undertrials, broad prison reforms have to be undertaken by the Governments. The trend of rising proportion of undertrials and overcrowding of prisons indicate that the process of reforms can no longer be delayed.

Syllabus: GS II, Important aspects of Governance, Accountability.
Source: The Hindu, The Hindu, The Hindu, Lok Sabha Reference Note, The Hindu

Summer Air Pollution – Causes & Consequences – Explained Pointwise

Summer air pollution has emerged as a growing environmental and public health concern in many Indian cities. Contrary to the common perception that air quality deteriorates only during winter, several urban centres now experience frequent pollution episodes during the summer months due to factors like disproportionate rise in PM10 levels & extreme heat.
In March, the Commission for Air Quality Management (CAQM) in the National Capital Region and adjoining areas lifted all restrictions under the Graded Response Action Plan (GRAP), marking the end of Delhi's winter

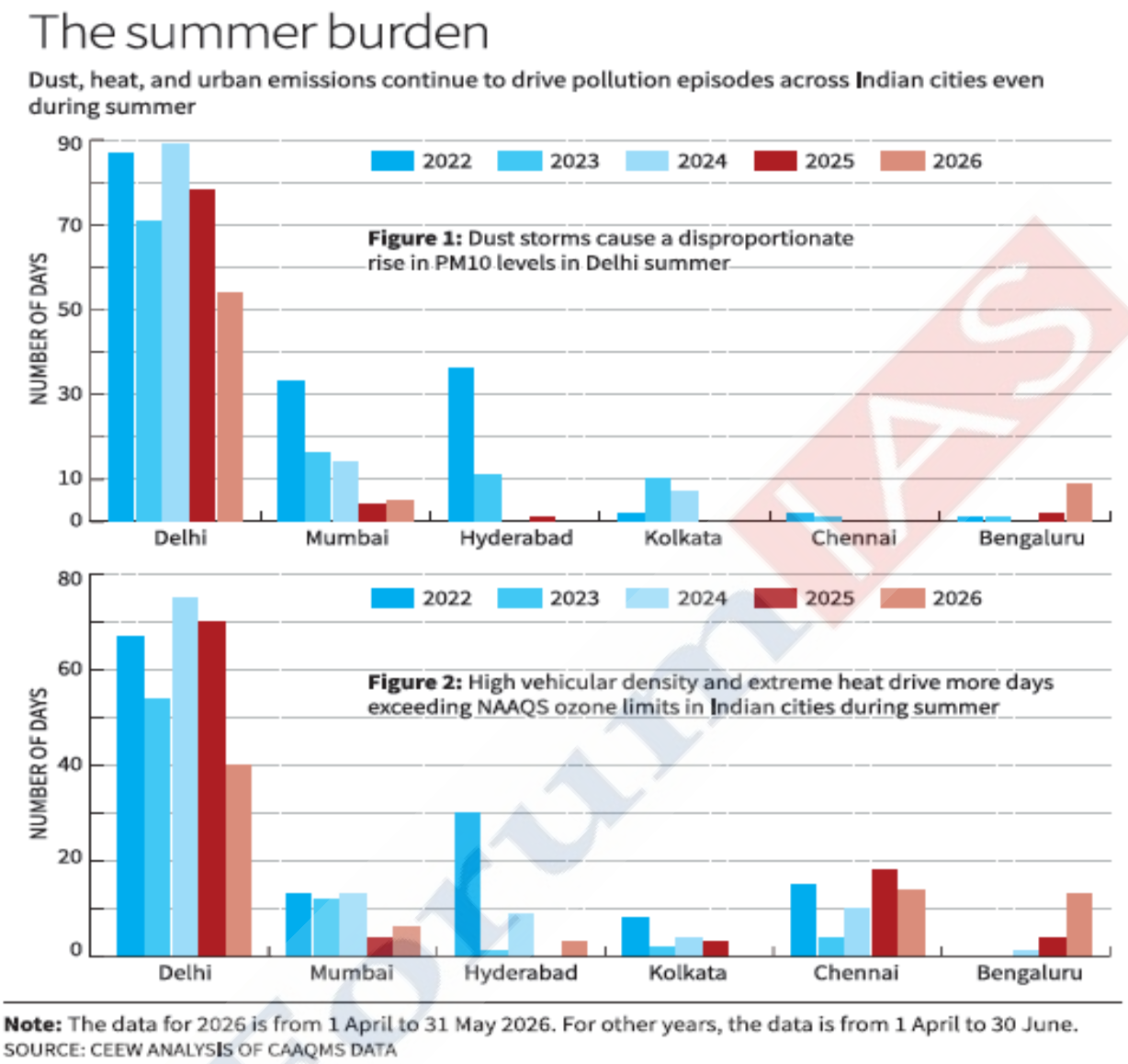
pollution season. However, with temperatures rising, the authority reinstated Stage I of GRAP in April to address worsening summer air pollution.

How is summer air pollution different from that in winter?

	Summer Air Pollution	Winter Air Pollution
Primary Pollutant	Summer pollution is driven by sunlight and heat. It is primarily composed of **coarse particulate matter (PM10)** and **ground-level ozone.**	Winter pollution is driven by combustion and stagnant air. It is heavily dominated by **fine particulate matter (PM2.5)** and **toxic gases** like Sulfur Dioxide (SO2).
Atmospheric Cause	Intense summer sunlight and high temperatures act as an energy source, driving a complex reaction between NOx and VOCs – which leads to the formation of **Ground-level ozone (O_3).**	Winter introduces a meteorological phenomenon called a **thermal inversion.** This creates a layer of extremely cold, dense air at the surface & a warmer layer of air sits above it (like a lid) – because of which pollutants get trapped very close to the surface.
Peak Times	Mid-afternoon to early evening	Early morning and late evening

Why are cities experiencing pollution episodes during the summer season?

1. **Massive Spikes in Coarse Pollutants (PM10)**: Summer pollution is caused by PM10 (coarse particulate matter) rather than the fine smoke (PM2.5) seen in winter. This is driven by two summer realities:
    a. **Drying Ground and Wind Storms:** Intense summer heat completely dries out the soil. Strong pre-monsoon winds or localized thunderstorms (such as the *Andhi* or *Loo* storms in South Asia) easily kick up massive amounts of loose soil and carry it directly into urban centers.
    b. **The Construction Boom:** In many cities, strict winter pollution bans on construction and demolition are lifted when spring arrives. Construction activities ramp up aggressively just as the ground is at its driest, sending massive plumes of unregulated dust into the city air.
2. **Ground-level Ozone**: The primary culprit of summer urban smog is **ground-level ozone (O3)**. Cities are densely packed with vehicles and industrial facilities that pump out Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs). When intense summer sunlight and soaring temperatures hit these emissions, they act like a catalyst, rapidly cooking these chemicals into ozone.
3. **The Urban Heat Island (UHI) Effect:** Cities are 1-3°C hotter than surrounding rural areas due to asphalt, concrete, and lack of trees. This extra city heat alters local urban chemistry & supercharges the ozone chemical reaction right where people live.



Source: The Hindu

What are the adverse effects of summer air pollution?

Health Impact	1. **Airway Inflammation:** Ground-level ozone is a powerful oxidant. Breathing it in chemically irritates and damages the cells lining your respiratory tract, causing a sensation akin to a sunburn inside your lungs. This leads to coughing, chest tightness, and a scratchy throat. 2. **Severe Asthma and COPD Flare-ups:** Summer ozone and coarse dust (PM10) act as aggressive triggers for respiratory conditions. ER visits for asthma attacks and Chronic Obstructive Pulmonary Disease (COPD) spike significantly during summer hot spells.

	3. **Reduced Lung Function:** Even in healthy adults, breathing summer smog makes it harder to take deep, full breaths. For children who spend summers playing outside, prolonged exposure can permanently stunt lung development and reduce overall lung capacity.
Impact on Agriculture	1. **Stunted Plant Growth:** Ozone enters plants through their microscopic breathing pores (stomata). Once inside, it damages chlorophyll and impairs **photosynthesis**. 2. **Reduced Crop Yields:** Summer smog severely stunts the yield of essential staple crops, including wheat, soybeans, cotton, and rice. 3. **Vulnerability to Disease:** Weakened by ozone exposure, crops and forests become significantly more vulnerable to diseases, harsh droughts, and insect infestations.
Structural Damage	1. **Damage to Materials:** Ozone is highly corrosive. In the presence of intense summer heat, it accelerates the cracking and degradation of rubber, plastics, nylon, and paint. This shortens the lifespan of building materials, car tires, and outdoor infrastructure. 2. **Acid Rain Precursors:** The nitrogen oxides (NOx) and sulfur dioxides (SO2) that cook into summer smog also mix with summer moisture (like humidity and thunderstorms), contributing to acid rain that damages forest canopies and acidifies lakes.
Socio-Economic Impact	1. **Plummeting Outdoor Productivity:** For industries reliant on outdoor labor—such as construction, agriculture, and gig-economy delivery services—the combination of extreme heat and toxic air drastically reduces worker efficiency and increases workplace medical emergencies. 2. **The "Greenhouse" Feedback Loop:** High summer pollution forces residents to stay indoors with windows shut and air conditioning blasting. This massive spike in energy demand forces fossil-fuel power plants to work overtime, emitting even more pollution into the summer air. 3. **Reduced Solar Efficiency:** The fine particulate matter that accompanies summer ozone (called PM2.5) deposits on solar panels. In smoggy summer cities, solar panel efficiency drops by 10-25% unless panels are cleaned weekly.

What can cities do to combat summer air pollution?

1. **Massive Urban Greening:** Planting extensive networks of street trees, pocket parks, and "green roofs" (roofs covered in vegetation) directly combats the Urban Heat Island effect. Shaded concrete can be up to 20°C cooler, drastically reducing the ambient heat that bakes emissions into ozone.
2. **Cool Pavements and Roofs:** Cities like Los Angeles and Tokyo have pioneered coating roofs and roads with highly reflective white or light-gray sealants. These "cool pavements" reflect sunlight back into space rather than absorbing it, lowering surface temperatures.
3. **Targeting Volatile Chemical Products (VCPs):** Since everyday products like paints, industrial solvents, printing inks, and even certain cleaning supplies evaporate into VOCs rapidly in summer heat, cities are enacting stricter regulations on "low-VOC" or "zero-VOC" consumer and industrial products.

4. **Shifting Construction Hours:** To manage the massive spikes in coarse dust (PM10) from summer building booms, cities can mandate that dust-heavy activities (like excavation and concrete mixing) happen during cooler nighttime or early morning hours, paired with strict misting/water-spraying requirements to keep dust grounded.
5. **Manage Traffic Emissions:** Optimize public transportation routes and schedules. Cities can encourage the transition to electric vehicles (EVs), establish low-emission zones, and run anti-idling campaigns (e.g., "Red Light On-Gaadi Off").
6. **Mechanical Road Sweeping**: Deploy fleets of vacuum-assisted sweeping trucks on arterial city roads to pick up loose silt before high winds kick it into the breathing zone.
7. **Low-Emission Zones**: Establish zero-emission vehicle zones in dense commercial centers, restricting older, polluting diesel vehicles from entering during peak daylight hours.

UPSC GS-3: Environment
Read More: The Hindu

Adoption of EVs: Challenges and Solutions – Explained Pointwise

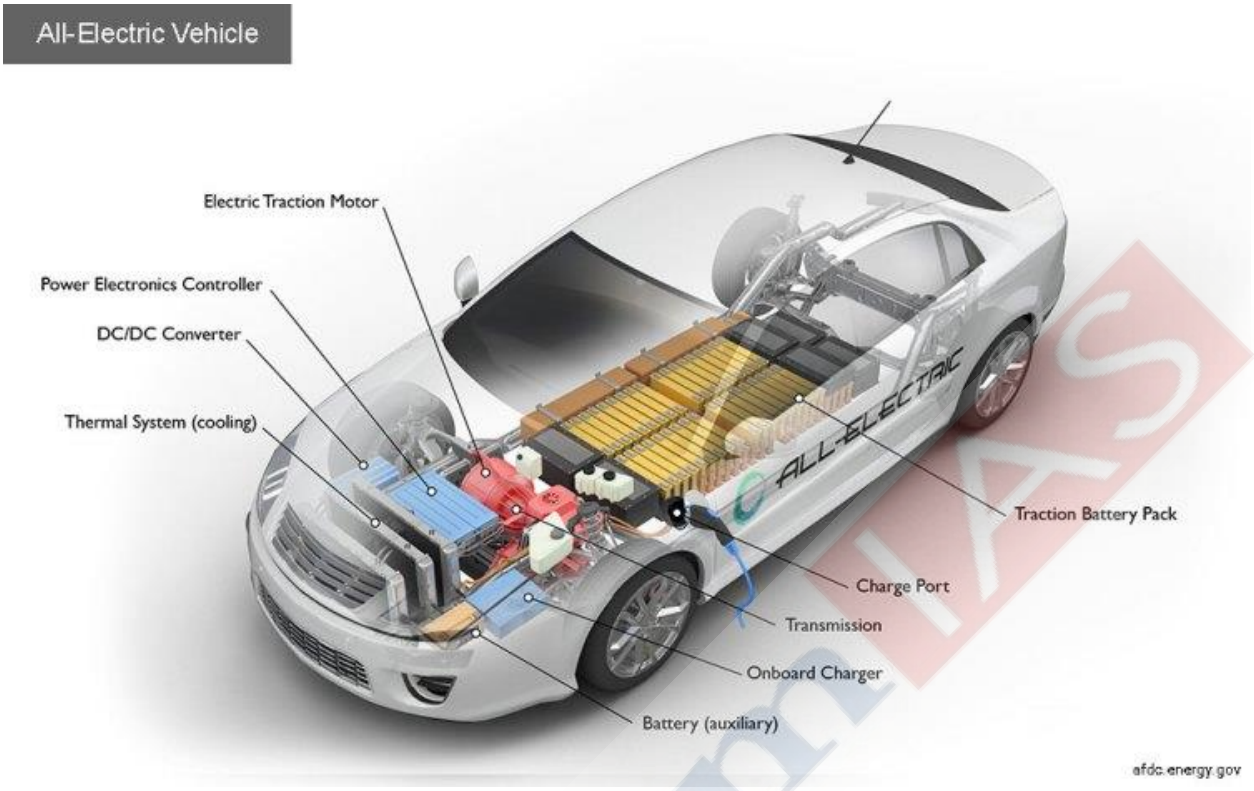
The Government is pushing hard for transition to Green Economy. One vital aspect of this transition is transition to Green Mobility. Enhancing the share of Electric Vehicles in transportation is necessary to ensure green mobility. As India strives to achieve its net-zero emissions target by 2070 and reduce dependence on imported fossil fuels, EVs are emerging as a key pillar of the nation's sustainable and clean mobility transition. However, the adoption of EVs still faces several hurdles. Addressing these challenges is necessary to ensure greening and decarbonisation of the transportation sector.

What are EVs and their benefits?

- Electric Vehicles (EVs) have an electric motor instead of an Internal Combustion Engine (ICE). ICE-based vehicles work on fossil fuels. EVs use a **large traction battery pack** to **power the electric motor**. The power to run the vehicle is provided by the motor (instead of fuel-engine in ICE vehicles).
- Because an EV runs on electricity, the vehicle emits **no exhaust from a tailpipe**.
- An EV does not contain the typical liquid fuel components, such as a fuel pump, fuel line, or fuel tank.

Types of EVs:

Type	How It Works	Power Source
BEV (Battery Electric Vehicle)	100% electric. It has no gas engine and relies entirely on a battery pack.	Electricity (Plug-in)
PHEV(Plug-in Hybrid Electric Vehicle)	Has both an electric motor and a gas engine. It can drive on pure electricity for short distances and switches to gas when the battery drains.	Electricity (Plug-in) + Gasoline
HEV(Hybrid Electric Vehicle)	Uses a gas engine alongside an electric motor. The battery is small and self-charges through braking; you **cannot** plug it in.	Gasoline Only
FCEV (Fuel Cell Electric Vehicle)	Uses a fuel cell to generate electricity on board, usually by mixing hydrogen with oxygen	Hydrogen



Key Components of an All-Electric Car

Battery (all-electric auxiliary): In an electric drive vehicle, the auxiliary battery provides electricity to power vehicle accessories.

Charge port: The charge port allows the vehicle to connect to an external power supply in order to charge the traction battery pack.

DC/DC converter: This device converts higher-voltage DC power from the traction battery pack to the lower-voltage DC power needed to run vehicle accessories and recharge the auxiliary battery.

Electric traction motor: Using power from the traction battery pack, this motor drives the vehicle's wheels. Some vehicles use motor generators that perform both the drive and regeneration functions.

Onboard charger: Takes the incoming AC electricity supplied via the charge port and converts it to DC power for charging the traction battery. It also communicates with the charging equipment and monitors battery characteristics such as voltage, current, temperature, and state of charge while charging the pack.

Power electronics controller: This unit manages the flow of electrical energy delivered by the traction battery, controlling the speed of the electric traction motor and the torque it produces.

Thermal system (cooling): This system maintains a proper operating temperature range of the engine, electric motor, power electronics, and other components.

Traction battery pack: Stores electricity for use by the electric traction motor.

Transmission (electric): The transmission transfers mechanical power from the electric traction motor to drive the wheels.

Source: *Department of Energy, US*

Benefits of EVs:

1. **Lower running costs**: The running cost of an electric vehicle is much lower than an equivalent ICE vehicle. Electric vehicles use electricity to charge their batteries instead of using fossil fuels like petrol or diesel.

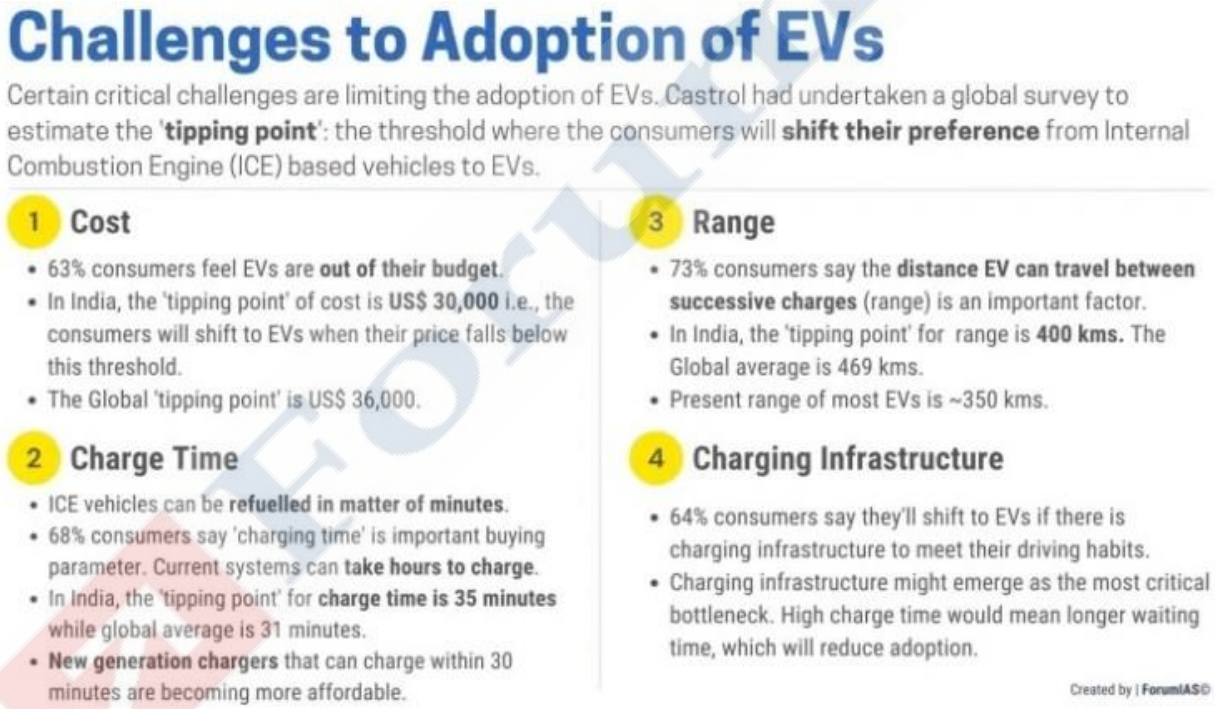
2. **EVs are more efficient:** According to one estimate, EVs can convert ~60% of the electrical energy from the grid to power the wheels, but petrol or diesel cars can only convert 17%-21% of the energy stored in the fuel to the wheels. The efficiency combined with the electricity cost means that charging an EV is is cheaper than fuel based vehicles.
3. **Low Maintenance Cost**: EVs have very low maintenance costs because they have lesser moving components compared to ICE vehicles (e.g., Electric vehicles don't have gears and there are no complicated controls). The **servicing requirements for EVs are lesser** than the conventional petrol or diesel vehicles. Therefore, the yearly cost of running an electric vehicle is significantly low.
4. **Zero Tailpipe Emissions**: EVs can help **reduce carbon footprint** because they have zero tailpipe emissions (carbon-dioxide emissions through combustion of fossil fuels). This can **reduce air pollution** as well as slow down the pace of global warming. EVs are thus essential for greening of transportation sector.
5. **Low Lifecycle Emissions:** Even if emissions from the production of electricity (like thermal power plant) & manufacturing of batteries are taken into account, petrol or diesel vehicles emit almost 3 times more carbon dioxide than the average EV. Thus, EVs have a significantly lower carbon footprint over their lifespan than gas-powered cars.
6. **Noise Pollution**: Electric Motors function silently, and produce much less noise compared to IC Engines. This can address noise pollution in urban areas or near highways.
7. **Brake Longevity:** Because EVs use **regenerative braking** (using the motor to slow down, which recharges the battery), your traditional brake pads and rotors experience very little wear and tear and last much longer.

What are the challenges to adoption of EVs?

1. **Charging Infrastructure Related Challenges**:
    a. **Lack of Infrastructure:** At present, charging stations comprising of both slow and fast charging capabilities are available for all kinds of vehicles in the market. However, the number of the charging stations is inadequate. This implies their availability is restricted and even the ones that are deployed do not function optimally. Hence, the lack of charging infrastructure is a major hindrance to the adoption of EVs at scale.
    b. **Uneven Distribution:** Infrastructure is heavily concentrated in just a few states like Karnataka, Maharashtra, and Delhi, which account for ~60% of all stations. Rural and semi-urban areas, as well as most highways (except in Tamil Nadu), remain severely underserved.
2. **Performance**: The EV manufacturers have been unable to implement the practicality of EVs being 'value for money' for consumers. The original equipment manufacturer (OEMs) are not developing **EVSE (Electric Vehicle Supply Equipment)**. As a result, the companies that are into EVSE are unsure about the types of EVs, charging technology and its time of launch. This uncertainty does not allow the EVSE OEMs to do long term planning.
3. **Range Anxiety**: It refers to an EV owner's fear that the vehicle's battery does not have sufficient charge for it to reach the destination. It is linked to how far the EV can travel on a single battery charge and the availability of charging points. This is a consequence of limited infrastructure and duration of battery charge.
4. **Long time for Charging Batteries**: The battery charging time is much longer than the time taken for refueling the ICE vehicles. Fast charging can result in overheating of batteries, hence it is avoided. This reduces the acceptability of EVs.
5. **High Upfront Cost**: The initial cost of owning an electric car is currently higher than that of ICE vehicles mainly due to the cost of the battery. Manufacturers are collaborating with the electric car

battery production supply chain to lower costs and improve overall efficiency. Apart from this, limited credit options and high EMI make it tough for the EV Sector to operate.

6. **Import Dependence**: One of the most significant barriers to EV adoption is the battery manufacturing process and supply chain. India has no manufacturing capacity for Lithium-ion cells and relies completely on imports of EV batteries. While battery prices are falling globally, India's heavy dependence on imports for lithium-ion cells and critical minerals keeps costs high and creates supply chain vulnerabilities.
7. **Grid Capacity & Reliability**: Charging thousands of EVs requires a massive, stable amount of electricity. In many parts of India, power outages and voltage fluctuations are still common, and local grids require major upgrades to handle high-power fast chargers.
8. **Financing and insurance** Banks and NBFCs are still cautious about EV loan products, partly due to uncertain resale values. Insurance premiums for EVs can also be higher, adding to running costs.
9. **The Indian Summer:** India experiences extreme summer temperatures that frequently cross **40°C to 45°C**. High ambient heat degrades battery health faster and requires sophisticated, expensive liquid-cooling systems to prevent thermal runaway (fire hazards).
10. **Lack of Skilled Mechanics:** Traditional mechanics are not equipped to handle EV repairs. Industry data suggests that **85% of mechanics lack the skills** to safely work on high-voltage batteries and electric motors, and only 5-10% of garages have the necessary tools.



What are the various government initiatives to promote the adoption of EVs in India?

PM E-DRIVE	The central pillar of India's EV policy is the **PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme**. Launched in September 2024, it replaced the earlier FAME (Faster Adoption and Manufacturing of Electric Vehicles in India) scheme. • **Direct Subsidies:** It provides upfront demand incentives directly at the point of sale via a digital, Aadhaar-linked e-Voucher system. • **Target Segments:** It heavily prioritizes mass and public transport, targeting the deployment of roughly 25 lakh electric two-wheelers, 3.2 lakh electric three-wheelers, and over 14,000 electric buses. • **Boosting Charging Infrastructure**: ₹2,000 crore has been explicitly allocated for setting up Public Charging Stations (EVPCS) across pan-India highways and major cities.
Production Linked Incentive (PLI) Schemes	• **PLI for Advanced Chemistry Cell (ACC):** An **₹18,100 crore** program designed to incentivize companies to set up mega-factories within India to manufacture local, long-range EV battery cells. • **PLI for Auto and Auto Components:** Incentivizes local manufacturing of high-tech EV components, like electric powertrains and Battery Management Systems (BMS). It requires automakers to achieve a minimum of 50% Domestic Value Addition (DVA) to qualify for payouts.
Scheme for Promotion of Manufacturing of Electric Passenger Cars in India (SPMEPCI)	• The policy aims to attract the global EV makers by lowering the customs/import duties (down to 15%) for a limited number of Completely Built-in Units (CBUs) for premium global EV manufacturers, provided they commit to investing a minimum of ₹4,150 crore (~$500 million) to set up local manufacturing plants in India within a fixed timeframe.
Tax Breaks & Fiscal Incentives	• **Goods and Services Tax (GST) Slash:** The GST on electric vehicles has been slashed from the standard automotive rates down to just **5%**. Similarly, GST on EV chargers and charging stations has also been lowered to 5%. • **Green Plates & Road Tax Waivers:** The Ministry of Road Transport and Highways (MoRTH) mandates distinctive **green license plates** for EVs. MoRTH has advised state governments to entirely waive road tax and registration fees for electric vehicles, a policy that most states have actively implemented.

State-Level EV Policies	• Complementing the central government, individual states (such as Delhi, Maharashtra, Tamil Nadu, Karnataka, and Uttar Pradesh) have established their own EV policies. These state incentives often include additional cash cashbacks, road tax exemptions, and building mandates for charging units to sweeten the deal for local buyers.

What are the possible solutions to increase adoption of EVs?

1. **Charging Infrastructure**:
    a. **Massive Scaling of the Network:** India needs to expand from a few thousand chargers to an estimated **one million by 2030**.
    b. **Implementing "Smart Charging":** Moving beyond just "fast" chargers to "smart" systems that can shift loads to off-peak hours, integrate with renewable energy (like solar), and provide battery health diagnostics to the user.
    c. **Focusing on High-Density Zones:** A targeted approach to build dense charging networks in major metropolitan areas first (e.g., Delhi, Mumbai, Bangalore) to create immediate "network effects" and build consumer confidence.
    d. **Standardized Battery Swapping:** For two-wheelers and three-wheelers (which dominate Indian roads), battery swapping is a game-changer. Implementing strict government standards for battery sizes and connectors would allow different vehicle brands to use the same swapping stations.
2. **Reduce Import Dependence**:
    a. **Exploit Domestic Reserves:** Accelerate the auctioning, commercial mining, and processing of newly discovered domestic lithium reserves (such as those in Jammu & Kashmir and Karnataka).
    b. **Strengthen Local Manufacturing**: The government's Phased Manufacturing Programme (PMP) and Production Linked Incentive (PLI) schemes for auto components and advanced chemistry cells are critical. Increased local production of cells, motors, and controllers will reduce import dependence and lower costs.
    c. **Sodium-Ion Batteries:** Sodium-ion technology is cheaper, safer in high temperatures, and completely eliminates the need for lithium, cobalt, and nickel. Mass-commercializing sodium-ion for low-speed two-wheelers and three-wheelers would dramatically cut imports.
3. **Battery-as-a-Service (BaaS):** The battery is the most expensive part of an EV, accounting for up to 40% of its total cost. Automakers can sell the car without the battery, drastically lowering the purchase price to match or beat petrol cars. The consumer then leases or rents the battery through a monthly subscription or pay-per-use model.
4. **Heat-Resilient Chemistry:** Indian R&D must focus on battery chemistries like **Lithium Iron Phosphate (LFP)** or emerging **Sodium-ion** batteries. These chemistries are inherently safer, much more thermally stable in **45°C** summers, and do not rely on scarce, expensive minerals like cobalt and nickel.
5. **Transitioning the Grid to Renewable Energy**: An EV is only as clean as the electricity that powers it. To maximize emission reductions, India must actively align EV charging with renewable energy generation. States like Maharashtra, Gujarat, and Tamil Nadu have introduced lower electricity rates during solar hours (typically 10 AM to 4 PM) to encourage daytime charging when solar power is abundant. Expanding this model nationwide can shift charging behavior toward cleaner energy.

Syllabus: GS III, Environment, Conservation
Read More: The Hindu

Startups in India – Explained Pointwise

Startups have emerged as a vital pillar of India's **economic transformation, driving innovation, job creation, and inclusive development.** Over the past decade, India has rapidly evolved into one of the **world's largest startup ecosystems,** with more than **2 lakh startups as of December 2025 .** Major hubs like Bengaluru, Hyderabad, Mumbai, and Delhi-NCR have been at the forefront of this transformation. At the same time, **smaller cities are also steadily contributing to the momentum with around 50% of the startups emerging from Tier II/ III cities.** , reflecting the democratisation of entrepreneurship.

What is a Startup?

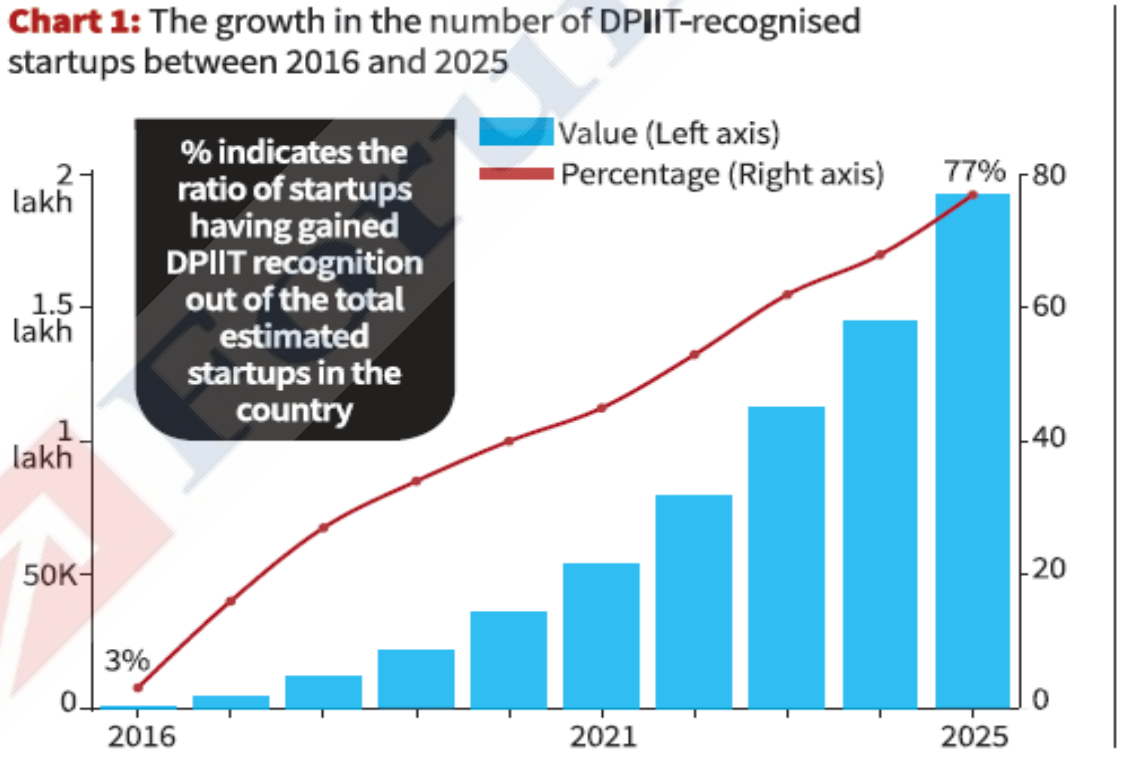
- An entity can be recognized as a startup by the Department for Promotion of Industry and Internal Trade (DPIIT) if it meets the 5 official criteria:
    1. **Entity Type:** Must be a Private Limited Company, a registered Partnership Firm, a Limited Liability Partnership (LLP), or a Cooperative Society (including Multi-State).
    2. **Business Age:** Must be within **10 years** from the date of its incorporation or registration.
    3. **Annual Turnover:** Turnover must not have exceeded **₹200 crore** in any financial year since incorporation.

4. **Business Nature:** Must be working towards innovation, development, or improvement of products/processes, OR be a scalable business model with high potential for employment or wealth creation.
5. **Original Entity:** It must **not** have been formed by splitting up or reconstructing an existing business.

- **Deep Tech Startup**: In 2026, a new category was introduced for more advanced, research-intensive businesses. A "Deep Tech Startup" has the same basic criteria but features:
    1. **Longer Recognition:** Eligible for up to **20 years** (vs. 10 years for regular startups).
    2. **Higher Turnover Limit:** Can have a turnover up to **₹300 crore.**
    3. **Focus:** Develops solutions based on new scientific or engineering knowledge, with a high R&D expenditure and significant intellectual property (IP) creation.

How has India emerged as a startup success story?

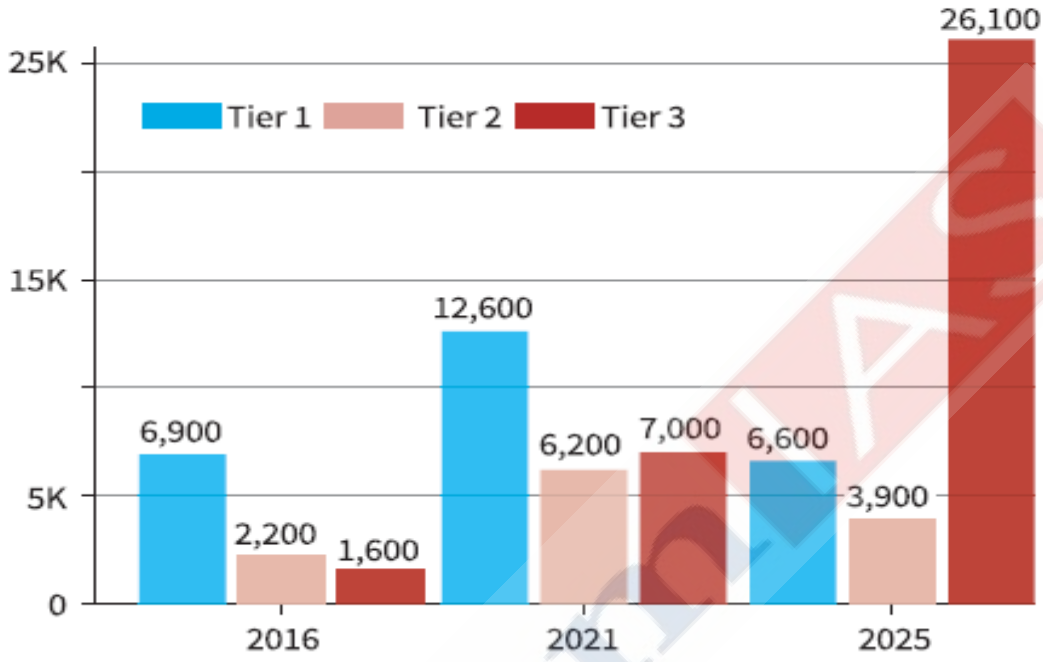
1. **Third-largest startup ecosystem:** With **over 2 lakh DPIIT-recognised startups** as of December 2025, India stands firmly as one of the world's **largest** startup ecosystems.
2. **Exponential Growth in Formally Recognized Startups:** Despite DPIIT recognition not being mandatory for startups to operate, there has been a significant growth in startups applying for its recognition. From 288 in 2016, which was just 3% of the total startups functioning then, the DPIIT's coverage has increased to 77% in 2025. The growing willingness to join the formal startup ecosystem has been an important measure of success for India's startup story.



3. **Tier-2 & Tier-3 Cities Rise**: Over **48% of DPIIT-recognized startups** now originate from tier-2 and tier-3 cities. Cities like Jaipur, Indore, Kochi, and Surat are emerging as significant innovation hubs. Seed funding in these areas grew from **$27 million in 2016 to $167 million in 2025**, proving that

talent and innovation are truly distributed across the country.

Chart 2: The number of startups set up in Tier 1, Tier 2, and Tier 3 cities and towns in 2016, 2020, and 2025



4. **Third-Largest Unicorn Hub**: With **125 unicorns**, India is now the world's third-largest startup ecosystem, a testament to its ability to create billion-dollar companies at scale. This is best illustrated by **Skyroot Aerospace**, which became India's **first space-tech unicorn** with a $1 billion valuation, validating the potential of high-tech, IP-driven ventures from the country.
5. **Women's Participation at Scale**: More than 1.07 lakh recognised startups — approximately 48% of the total — have at least one woman director or partner. And women co-founded startups attracted $1 billion in funding in 2025. Inclusive participation is a key indicator of ecosystem health.
6. **Age & Gender Distribution of Startup Founders**:

   The age and gender distributions of startup founders reveal a strong presence of the youth. A substantial portion of founders across both genders (approximately 66% are male founders and 59% female founders) are under 40. The embrace of entrepreneurship early in one's career signals a favourable and supportive ecosystem for startups.

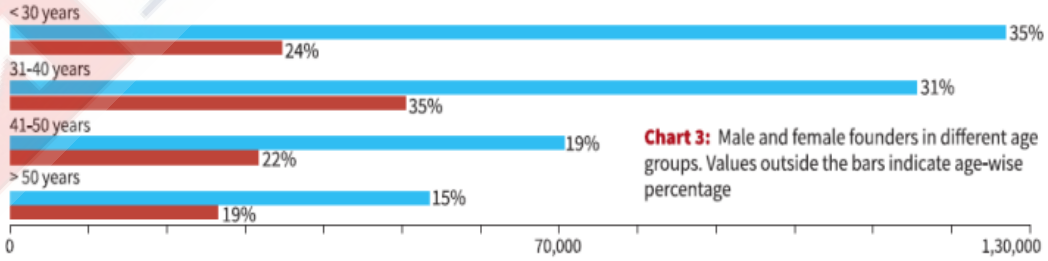
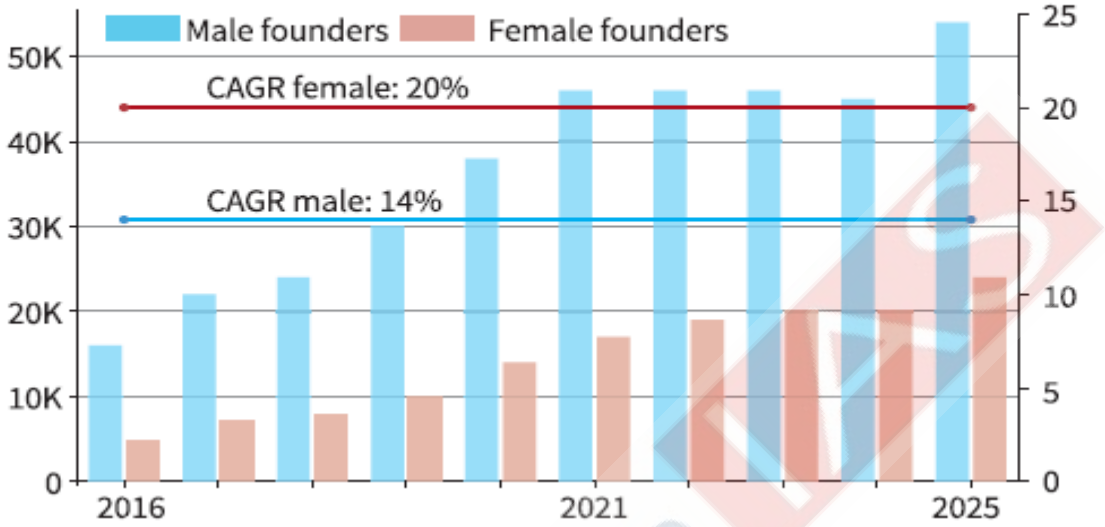


Chart 3: Male and female founders in different age groups. Values outside the bars indicate age-wise percentage

   - While women account for about 21% of the founders in the under-30 age group, they account for 33% in the 50- plus age group. The Compound Annual Growth Rate (CAGR) of women founders stood at 20%, compared with 14% for men, underlining the strong trend of women increasingly pursuing entrepreneurship.

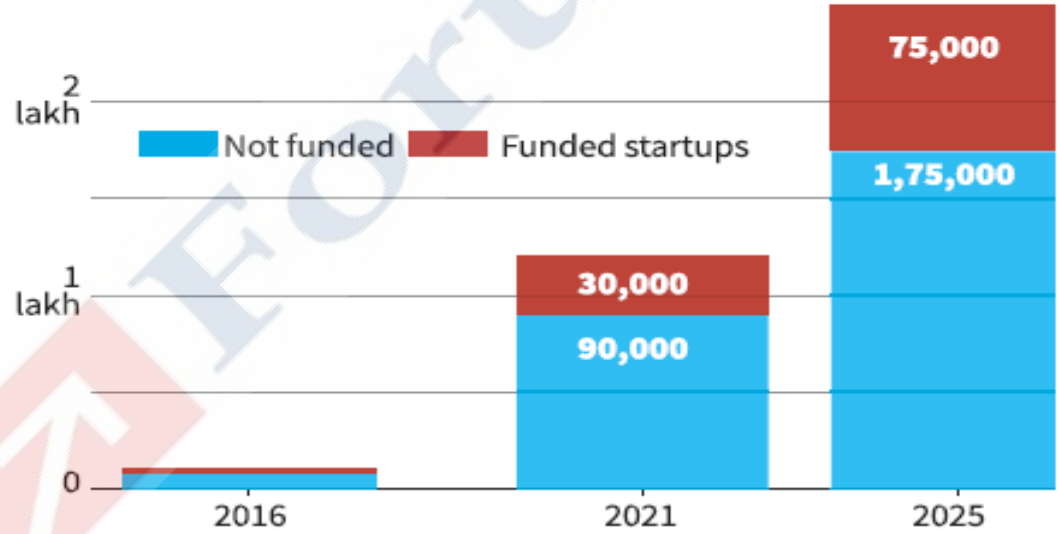
Chart 4: The growth in male and female founders between 2016 and 2025



Source:: The Hindu

7. **Surge in Confidence of Investors in Indian Startups**: In 2016, India had 10,000 startups, of which 2,000 were funded ventures. The numbers have increased dramatically in 2025 with a total of 2,50,000 startups, of which 75,000 are funded ventures. This is an increase of 25-fold and 38-fold respectively.

Chart 5: The growth in startup formation and funded startups between 2016 and 2025



Source: The Hindu

What is the significance of Startups in an economy?

1. **Engine of Job Creation**: Startups are among the most powerful generators of employment. Unlike large established corporations that often optimize by reducing headcount, startups scale by hiring. In India's case alone, over 23 lakh direct jobs have been created by DPIIT-recognised startups.
2. **Driver of Innovation**: Startups thrive by doing things differently. They challenge incumbent industries, introduce new technologies, and force entire sectors to evolve. The smartphone revolution,

the rise of fintech, the transformation of retail through e-commerce – most of these disruptions originated in startups, not in the R&D labs of large corporations. Innovation driven by startups tends to be faster, riskier, and more radical than incremental corporate innovation.

3. **Contribution to GDP Growth**: As startups scale into mid-size and large companies, they directly add to a nation's GDP. Beyond their own output, they create multiplier effects. In emerging economies like India, the startup sector is increasingly treated as a structural growth engine, not a peripheral activity.
4. **Solving Market Failures and Public Problems**: Some of the most important startups address gaps that governments and large corporations have historically neglected — affordable healthcare, financial inclusion for the unbanked, clean energy access, agri-tech for smallholder farmers. In India, companies like Practo, PhonePe, and DeHaat illustrate how startups can reach underserved populations at scale, improving social outcomes alongside economic ones.
5. **Attracting Foreign Investment**: A vibrant startup ecosystem signals to global investors that a country has the talent, infrastructure, and regulatory environment to support risk capital. This attracts Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI), strengthening the balance of payments and supporting currency stability.
6. **Developing Entrepreneurial Culture**: Startups shift a society's relationship with risk and ambition. When successful entrepreneurs become visible role models, more people — especially young people — are inspired to start ventures rather than only seek salaried employment. This cultural shift has compounding effects: each generation of founders mentors the next, creating a self-reinforcing innovation ecosystem.
7. **Tax Revenue and Fiscal Strengthening**: As startups grow, list on exchanges, and generate profits, they contribute significantly to government tax revenues — both corporate taxes and income taxes from the large workforces they employ. The indirect tax base also expands as startup-driven consumption and commerce grow.
8. **Inclusive and Decentralized Growth**: Startups are increasingly **bridging India's rural- urban divide** by deploying solutions across agri-tech, telemedicine, microfinance, tourism, and ed-tech, directly addressing developmental gaps and supporting rural livelihoods. Within this landscape, women-led startups are emerging as a key driver of inclusive and regionally balanced growth, with more than 45% of recognised startups having at least one-woman Director/Partner as of December 2025. This reflects the emergence of innovation not only as an economic engine but also as a driver of social equity and balanced regional development.

What are the challenges faced by Startups in India?

1. **Access to Funding – Especially at the Early Stage**: Many startups struggle to attract investors, especially in the early stages, due to a lack of a proven track record, inadequate financial projections, or an underdeveloped business model.
2. **Regulatory Complexity and Compliance Burden**: Despite government support, startups face complex tax structures, compliance requirements, and regulatory uncertainties, including recent data protection laws. India's multi-layered regulatory environment creates a heavy compliance load that diverts founder attention and capital away from core business building. Rising compliance costs have been a direct factor in the record 11,223 startup closures seen in 2025 — a 30% increase from 8,649 closures in 2024.
3. **Infrastructure Gaps**: Many startups still face challenges related to inadequate physical infrastructure, unreliable internet connectivity, and limited access to advanced technology — particularly outside the major metro cities. Startups trying to serve Tier-2 and Tier-3 markets often run into logistics, connectivity, and last-mile delivery problems that dramatically raise their operating costs.

4. **Lack of Mentorship and Ecosystem Support**: Beyond funding, many founders — especially first-generation entrepreneurs from non-metro backgrounds — lack access to experienced mentors, networks, and institutional knowledge about building and scaling businesses. This gap in **"soft infrastructure"** is often as damaging as the lack of capital.
5. **The Deep-Tech Capital Conundrum:** Deep-tech startups (in areas like AI, space, biotech) require **patient capital –** large sums of money over long periods (often 10+ years) before becoming profitable. This type of funding is scarce in India.
6. **The Valuation Correction:** Between 2021 and 2022, massive amounts of foreign capital artificially inflated company valuations. Over the last couple of years, funding has cooled down substantially (with overall funding dropping by nearly 26% year-on-year in early 2026).
7. **Severe Talent Shortages**: Despite graduating millions of engineers every year, India suffers a severe paradox regarding skilled human capital. The hyper-growth of generative AI, semiconductors, climate tech, and advanced robotics requires specialized deep-tech talent. University curricula often remain outdated, creating a massive gap between academic knowledge and actual industry requirements.

What are various government initiatives to promote Startups in India?

Startup India Scheme	• The **Startup India Initiative**, led by the **Department for Promotion of Industry and Internal Trade (DPIIT)** under the Ministry of Commerce and Industry, has emerged as the cornerstone of India's innovation and entrepreneurial ecosystem. • Over the past decade, the initiative has evolved from a **policy-focused framework** into a **comprehensive, multi-dimensional platform** supporting startups at every stage from ideation to scaling operations. • To accelerate innovation-led entrepreneurship, **DPIIT,** through the Startup India initiative, has rolled out the following flagship schemes and digital platforms to support funding, mentorship, and the scaling of startups nationwide.

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<tr><td>Funding Support</td><td>

Startup India Seed Fund Scheme (SISFS): This scheme distributes grants and loans (up to ₹20 lakh for proof-of-concept/prototyping and up to ₹50 lakh for market entry/commercialization) to startups through approved incubators.
Fund of Funds for Startups (FFS): Instead of picking individual winners, the government managed a massive ₹10,000 crore corpus to back SEBI-registered Venture Capital (VC) funds. These private VC funds, in turn, invest that capital into high-growth Indian startups, multiplying the pool of institutional money available.
Credit Guarantee Scheme for Startups (CGSS): To help startups secure traditional bank loans without having to pledge personal property or assets as collateral, this initiative provides credit guarantees to financial institutions lending to recognized startups.
Startup India Investor Connect Portal: Developed in collaboration with SIDBI, the Startup India Investor Connect Portal is a digital platform that connects startups with venture capital funds and investors, with a particular focus on early-stage ventures. The platform enables entrepreneurs to reach multiple investors through a single application and pitch their ideas efficiently.

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<tr><td>Regulatory Relief and</td><td>

The 3-Year Tax Holiday (Section 80-IAC): Eligible startups can apply for a 100% tax rebate on their profits for three consecutive financial years out of their first ten years of operations.

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Tax Incentives	• **Self-Certification Compliance:** To cut down on bureaucratic red tape, startups can self-certify their compliance with 6 labor laws and 3 environmental laws for up to 3 to 5 years, completely avoiding routine, disruptive on-site government inspections.
Public Procurement	• **Government e-Marketplace (GeM):** The GeM portal is a massive public procurement platform where government departments buy goods and services. The government created a dedicated **"Startup Runway"** corner on GeM. • **Relaxed Tender Criteria:** For recognized startups bidding on public procurement tenders, the government waived the restrictive criteria of "prior turnover" and "prior experience," provided the startup meets the baseline technical specifications of the product or service.
National Mentorship Portal (MAARG)	The Mentorship, Advisory, Assistance, Resilience, and Growth (**MAARG**) program has been developed to provide startups across the country with easy **access to mentorship**. By connecting **entrepreneurs** with **experienced mentors**, the portal aims to support startup growth, offer strategic guidance, and strengthen the overall entrepreneurial ecosystem nationwide.
GENESIS (Gen-Next Support for Innovative Startups)	The GENESIS initiative, a National Deep-tech Startup Platform by **Ministry of Electronics and Information Technology (MeitY)**, was launched in **2022**, with an aim to scale up about 1600 technology startups through implementing agencies in Tier-II and Tier-III cities across India, providing significant funding and support for deep-tech innovation.
NIDHI (National Initiative for Developing and Harnessing Innovations)	The **National Initiative for Developing and Harnessing Innovations (NIDHI)**, launched in **2016** by the **Department of Science and Technology (DST), Ministry of Science and Technology**, acts as an umbrella programme for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups. The programme focuses on building an innovation-driven entrepreneurial ecosystem with the objective of socio-economic development through wealth and job creation.

Scheme	Ministry	Objective
Atal Innovation Mission (AIM) (2016)	NITI Aayog	Foster nationwide innovation culture
GENESIS (Gen-Next Support for Innovative Startups) (2022)	Ministry of Electronics & IT (Meity)	Deep-tech startups in Tier II/III cities
Technology Incubation and Development of Entrepreneurs (TIDE) 2.0 (2019)	Ministry of Electronics & IT (Meity)	ICT startup incubation & scale-up
MeitY Startup Hub (MSH) (2016)	Ministry of Electronics & IT (Meity)	Integrate tech startup ecosystem
NIDHI (National Initiative for Developing and Harnessing Innovations) (2016)	Department of Science & Technology (DST)	Support S&T startups from idea to market
Startup Village Entrepreneurship Programme (SVEP) (2015)	Ministry of Rural Development (DAY- NRLM)	Promote rural entrepreneurship
ASPIRE (Scheme for Promotion of Innovation, Rural Industries and Entrepreneurship) (2015)	Ministry of MSME	Strengthen rural enterprise incubators
Prime Minister's Employment Generation Programme (PMEGP) (2008)	Ministry of MSME (KVIC)	Subsidised credit for self-employment

Source: PIB

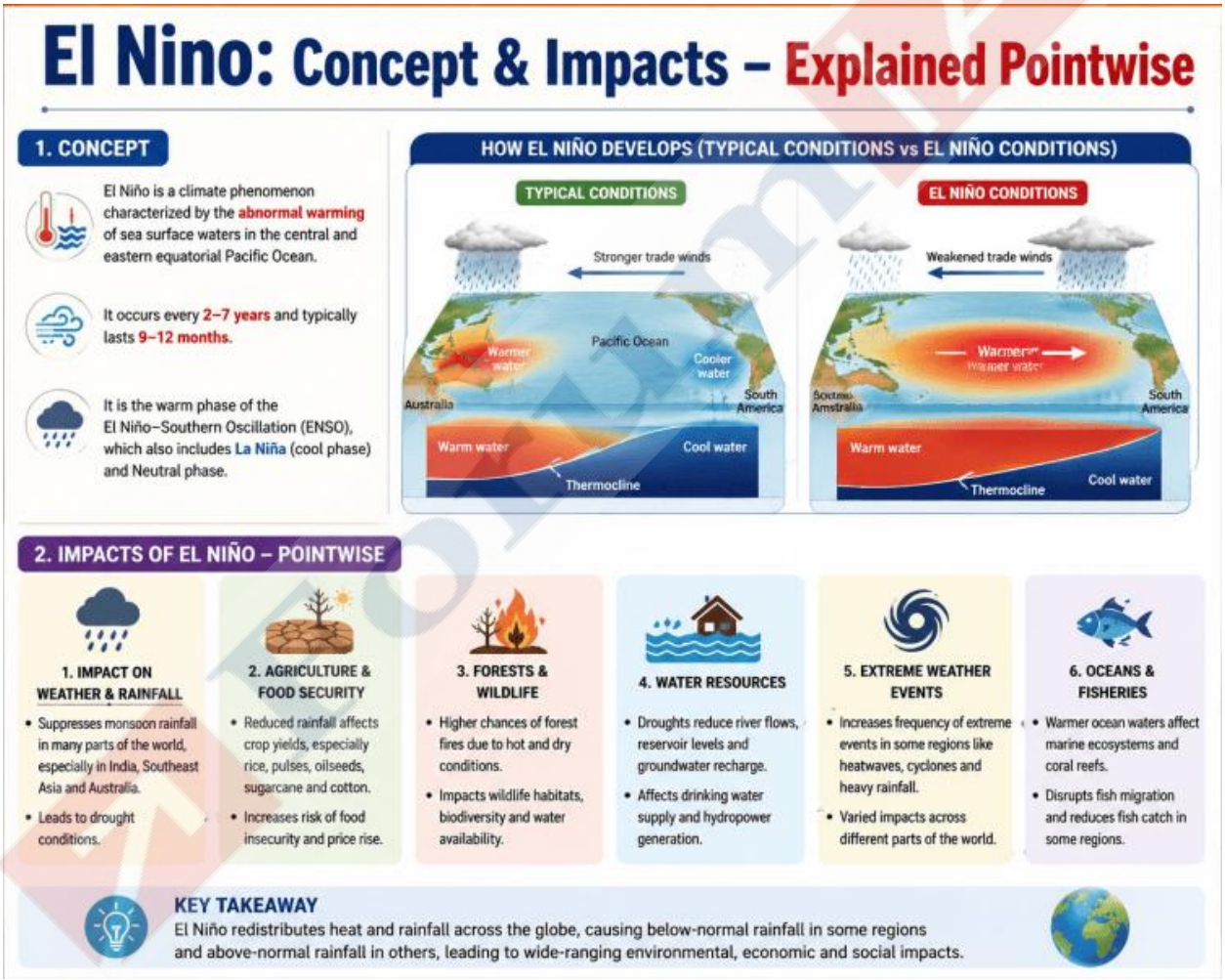
What can be the way forward?

1. **Pivot from "Consumer Tech" to "Deep-Tech & IP Creation"**: The most significant strategic direction for Indian startups is to move beyond the first wave of success in consumer internet, edtech, and fintech. Capital and talent must be aggressively reallocated into sectors like generative AI, semiconductor design, quantum computing, biotechnology, and space-tech.
2. **Expand Beyond Metros into Tier-2 and Tier-3 Cities**: Building from Tier-2 and Tier-3 cities can significantly reduce costs and boost talent retention. Startups that design for Bharat rather than for urban elites will access a far larger and less competed market. Lower real estate, lower salaries, and higher loyalty among local talent make this a compelling operational choice too.
3. **Leverage Government Schemes More Effectively**: Many eligible startups are either unaware of or under-utilise available support. Securing DPIIT recognition early, applying for Credit Guarantee Scheme for Startups (CGSS) coverage, targeting climate-tech and logistics where demand meets policy incentives, and co-investing with SIDBI-backed AIFs to limit risk are all concrete steps founders can take.
4. **Build for Global Markets**: Indian SaaS and B2B tech startups have demonstrated that it is possible to build world-class products in India and sell them globally at competitive price points. This "**global from day one**" approach earns foreign exchange, reduces dependence on domestic funding cycles, and builds more defensible businesses.
5. **Fix the Regulatory Environment**: The government's role is not just to fund startups but to get out of their way. Simplifying GST compliance for startups, rationalising ESOP taxation (so employees are not taxed before they can liquidate shares), streamlining labour law compliance, and creating faster dispute resolution mechanisms would meaningfully reduce the cost and friction of building a company.
6. **Build Mentorship and Knowledge Infrastructure:** Capital is necessary but not sufficient. India needs a much denser network of experienced operators — former founders, senior executives, domain experts — who actively mentor the next generation.

UPSC GS-3: Indian Economy
Read More: The Hindu, PIB

El Nino: Concept & Impacts – Explained Pointwise

The US National Oceanic and Atmospheric Administration (NOAA) ENSO Diagnostic Discussion Report (2026) states that El Niño is likely to emerge soon, with an 82% chance during May-July 2026 & a 96% chance of continuing through the winter of 2026-27. El Niño is a climate pattern that emerges sporadically along the equatorial Pacific and is known for triggering global weather changes. The impacts of El Niño extend far beyond weather, influencing marine ecosystems, agriculture, economy, and human health. As this powerful force returns, understanding the concept of El Niño and its widespread impacts becomes crucial for everyone.

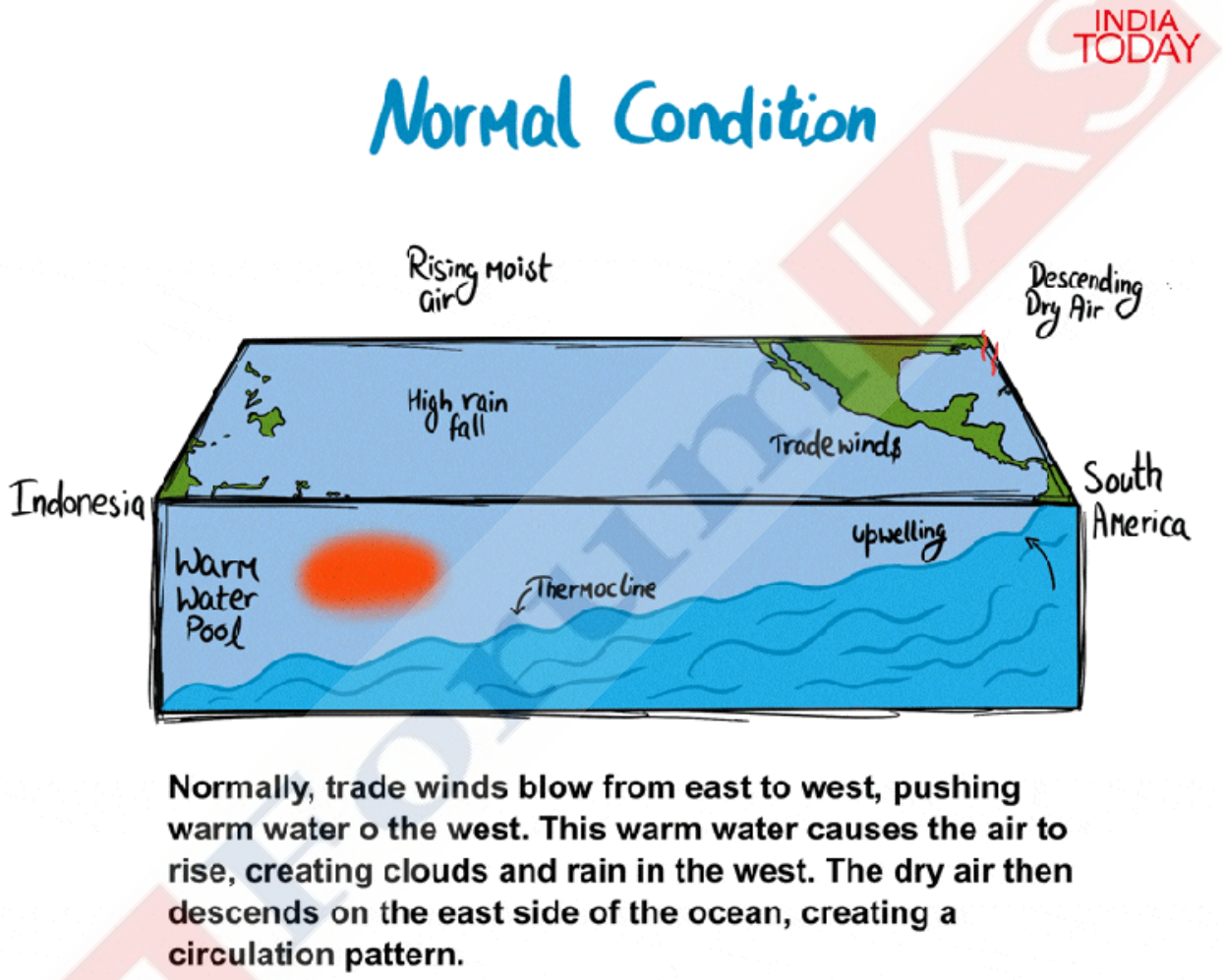


What Is El Nino?

- **El Niño** (Spanish for "The Boy Child," referring to the Christ Child because the phenomenon often peaks around December) is a climate pattern characterized by the **unusual warming of surface waters** in the central and eastern tropical Pacific Ocean.

- El Niño is the "warm phase" of a larger phenomenon called the El Niño-Southern Oscillation (ENSO).
- La Niña, the "cool phase" of ENSO, is a pattern that describes the unusual cooling of the region's surface waters.
- El Niño and La Niña are considered the ocean part of ENSO, while the Southern Oscillation is its atmospheric changes. El Niño events occur irregularly at two- to seven-year intervals.

How will the formation of El Nino occur?



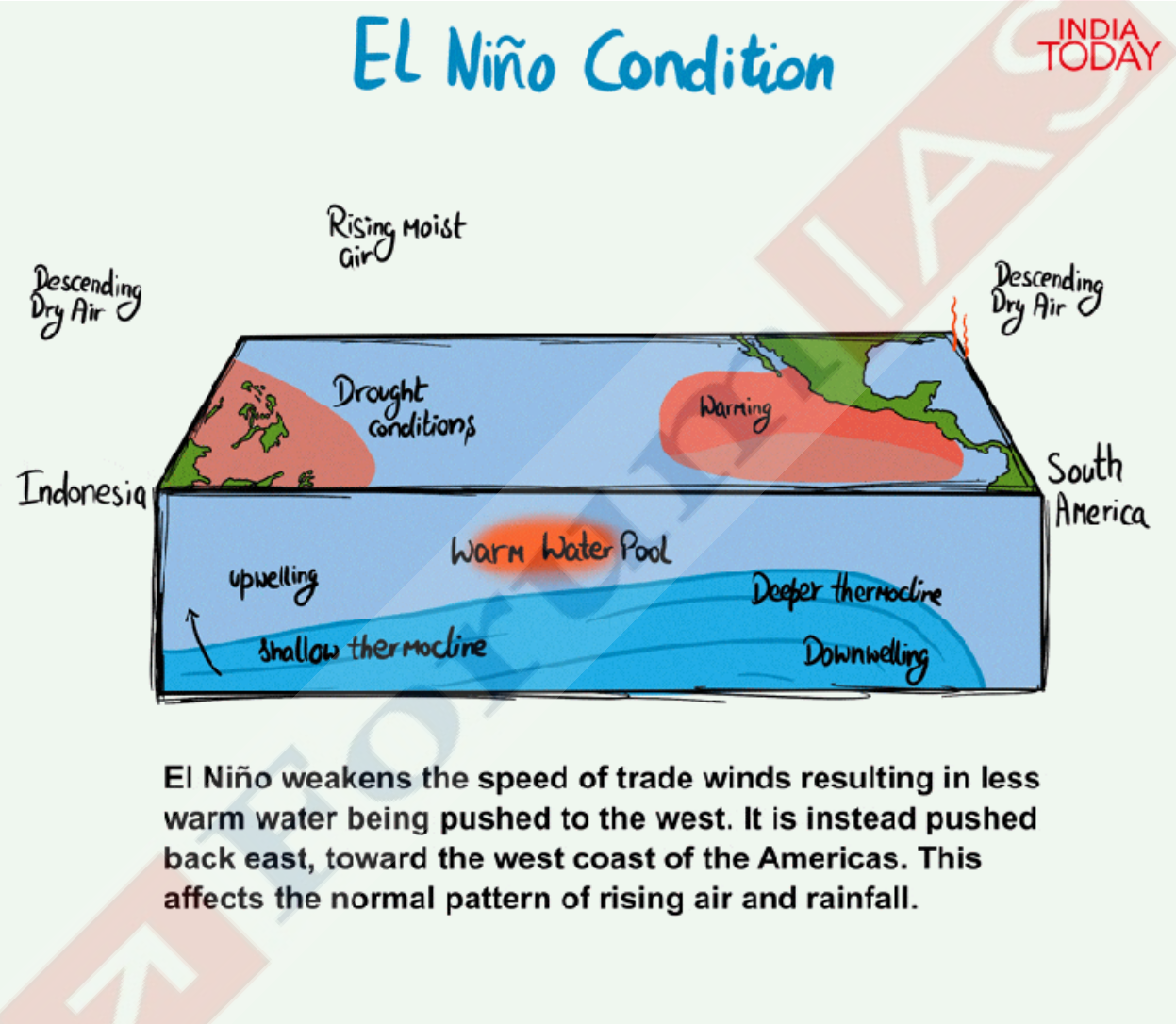
Source: India Today

The formation of El Niño involves a series of interactions between the ocean and the atmosphere in the tropical Pacific. Here are the key steps in this complex process:

- **Normal conditions:** Under normal conditions, the trade winds (which are part of the Earth's general circulation) blow across the tropical Pacific from east to west. These winds push warm surface water towards the western Pacific (near Asia and Australasia), piling it up there. This leaves room for cold, nutrient-rich water to well up from the depths in the eastern Pacific (near South America).
- **Air circulation:** The accumulation of warm water in the west heats the overlying air, making it moist and buoyant. This warm, moist air rises, leading to the formation of rain clouds. The rising air creates

a low-pressure system in the west, and a high-pressure system forms in the east where cooler, drier air descends. This pressure difference reinforces the trade winds, completing what is known as the Walker circulation.

- **Weakening trade winds:** The onset of El Niño involves a weakening or reversal of the trade winds. This can happen for various reasons, such as changes in the sea surface temperature distribution or atmospheric pressure patterns. The weakening of the trade winds is often initiated by an atmospheric phenomenon known as a westerly wind burst.



Source: India Today

- **Spread of warm water:** When the trade winds weaken, they can no longer push the warm water to the west as effectively. As a result, the warm water spreads from the western Pacific to the east. This process is known as a **Kelvin wave**. The spread of warm water to the east suppresses the upwelling of cold water near South America.

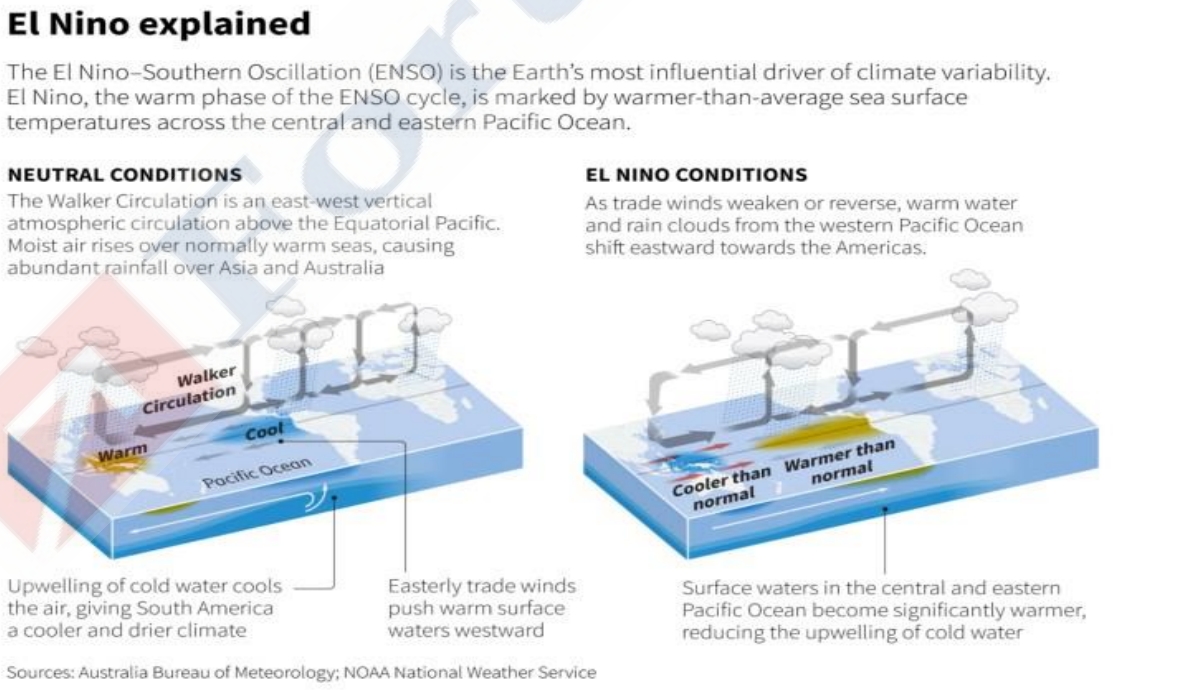
- **Feedback loop:** The eastward spread of warm water further weakens the trade winds, creating a feedback loop that intensifies El Niño. This is because the warmer water warms the overlying air, which lowers the atmospheric pressure and weakens the trade winds.
- **Establishment of El Niño:** As this feedback loop continues, the warm water in the eastern Pacific gets warmer, and the weakened trade winds get weaker. Eventually, a full-blown El Niño event is established, characterized by significantly warmer than average sea surface temperatures in the central and eastern Pacific.

What are the impacts of El Niño on India?

Impact on Monsoon & Rainfall	• **Suppressing the Monsoon**: El Niño can significantly impact the Indian monsoon, leading to fluctuations in rainfall patterns. During an El Niño year, India often experiences below-average monsoon rains, potentially causing drought conditions. El Niño leads to: ○ **Delayed Onset:** The monsoon often arrives late along the Kerala coast. ○ **Prolonged Dry Spells:** Extended periods of little to no rain ("monsoon breaks") during July and August, which are critical months for crop sowing. ○ **Deficient Overall Rainfall:** Historically, about half of all El Niño years have resulted in distinct monsoon droughts in India.
Agriculture & Food Security	Because a vast portion of Indian agriculture relies entirely on rainfed farming, the weakening of the monsoon triggers a chain reaction through the economy: • **Reduced Crop Yields**: El Niño-induced rainfall deficits directly hurt *kharif* (summer) crops such as rice, pulses, soybeans, and cotton. Lower production leads to reduced income for farmers. • **Rabi Crop Dependence**: Poor reservoir levels from a weak monsoon can also affect *rabi* (winter) crops like wheat and mustard, which depend on irrigation from stored water. • **Livestock and Dairy**: Drought conditions reduce fodder availability, impacting livestock health and dairy productivity, a key rural income source.
Ecological & Wildlife Impact	• **Forest Fires:** Extended droughts and soaring temperatures dry out forest floors, drastically increasing the frequency, intensity, and spread of forest fires—particularly in the deciduous forests of Central India and parts of the Western Ghats. • **Fodder and Water Crises in Protected Areas:** Searing heat and dried-up natural waterholes (water bodies) inside national parks and wildlife sanctuaries force megafauna like Asian elephants and Indian rhinoceroses to migrate out of protected boundaries, leading to a sharp rise in **human-wildlife conflict.**

Economic Impact	• **Rural Economic Slowdown:** Reduced agricultural output directly lowers incomes for millions of farmers, suppressing rural consumer demand for goods and services across the country. A hotter India is not merely a warmer India; it is an India where earning a livelihood becomes increasingly difficult. • **Rising Food Prices**: Lower production of vegetables, cereals, and pulses drives up market prices. This forces households to spend a larger share of income on food, reducing discretionary spending. For policymakers, this creates a difficult balancing act – the same climate shock can simultaneously weaken growth & intensify inflationary pressures. • **Subsidy Burden**: The government often raises minimum support prices (MSPs) for crops to cushion farmer losses. Subsidized food distribution (e.g., PDS) also expands to cover drought-hit populations. • **Relief and Bailouts**: State and central governments spend heavily on drought relief measures, including loan waivers for farmers, free grain, and employment under rural job guarantee schemes (e.g., MGNREGA). • **Lower Tax Revenue**: Reduced agricultural output slows the rural economy, curbing demand for consumer goods, tractors, and fertilizers — lowering GST collections. • **Weakened Rural Consumption**: Farmers with lower incomes postpone buying vehicles, electronics, building materials, and fast-moving consumer goods (FMCG), affecting manufacturing and retail sectors.

What are the El Nino impacts in regions outside India?



Source: NOAA

El Niño affects various regions across the globe in different ways. Here are some impacts observed in regions outside India:

- **North America:** El Niño tends to suppress Atlantic hurricane activity, although there are exceptions depending on other climate factors.
- **South America:** Coastal countries in South America like Peru and Ecuador can experience heavy rains and flooding. El Niño weakens the upwelling of cold, nutrient-rich waters along the coasts of South America, which can negatively impact marine ecosystems and fisheries.
- **Australia and Southeast Asia:** These regions generally experience decreased rainfall during El Niño events, which can lead to droughts and significantly impact agriculture, water supply, and ecosystems. This decrease in precipitation can also heighten the risk of wildfires.
- **Africa:** East Africa may receive more rain than usual, which could lead to flooding. Southern Africa may face drier conditions, which can lead to water shortages and impacts on agriculture.
- **Europe:** The impacts on Europe are more uncertain and depend on how El Niño interacts with other climate patterns. However, it can potentially influence the strength and path of the jet stream, which could result in various weather anomalies in the region.

How are countries around the world planning to mitigate and combat the impacts of El Niño?

- **Creation of disaster risk reduction funds:** Countries like Peru have created dedicated funds to tackle El Niño. Peru's Disaster Risk Reduction Fund is specifically designated to prepare for and mitigate the potential impacts of El Niño. These funds are often allocated to various activities, including improving infrastructure to withstand extreme weather events, supporting early warning systems, and assisting recovery efforts after disasters.
- **Improved monitoring and early warning systems:** The US-based National Oceanic and Atmospheric Administration (NOAA) continually invests in technology to monitor oceanic and atmospheric conditions better, helping predict an impending El Niño event. Early warnings from organizations like NOAA can help governments worldwide to prepare well in advance and implement strategies to minimize potential impacts.
- **International cooperation and policy frameworks:** Many countries collaborate through international agreements and conventions to manage El Niño's impacts. The Paris Climate Agreement, signed by 196 nations, underscores the importance of global action to address climate change, including phenomena like El Niño. These agreements may involve the sharing of information and resources, the development of common strategies, and cooperation on research and development efforts related to El Niño.
- **Climate change mitigation efforts:** As the effects of climate change can potentially exacerbate the frequency and intensity of El Niño, efforts to mitigate climate change are an integral part of addressing El Niño. The UN's Intergovernmental Panel on Climate Change (IPCC) plays a crucial role in guiding global policies related to climate change, including strategies to cope with El Niño events.
- **Adapting agriculture and infrastructure:** In countries like India, which are heavily impacted by El Niño, there are ongoing efforts to adapt agricultural practices to be more resilient to changes in rainfall and temperature. This includes implementing irrigation facilities, diversifying crop types, and promoting weather-based crop insurance.
- **Impact-Based Analysis**: Organizations like the UN's Food and Agriculture Organization (FAO) combine seasonal climate forecasts with data on crop yields, food security, and market prices. This allows them to predict exactly where and when crop failures or water shortages will occur.

- **Regional Collaboration**: Central American countries are coordinating through the Central American Agricultural Council to share strategies for the Dry Corridor, a region highly susceptible to drought.

What should be done?

1. **Promoting climate resilient infrastructure:** Infrastructure development needs to factor in climate resilience, meaning that buildings, roads, and other infrastructure should be constructed to withstand extreme weather events like those brought on by El Niño.
2. **Strengthening international collaboration**: Countries should strengthen international cooperation to share knowledge, technology, and resources to mitigate the impacts of El Niño. Climate change has no borders, and global collaboration is crucial.
3. **Climate change mitigation:** Efforts should be heightened to reduce greenhouse gas emissions, as global warming can exacerbate the effects of El Niño. This includes promoting clean energy, reducing deforestation, and implementing sustainable practices in industries.
4. **Adapting agricultural practices:** In agriculture-based economies, there should be widespread education on the effects of El Niño on weather patterns to help farmers adapt their practices. This can include crop diversification, implementing irrigation facilities, and promoting weather-based crop insurance.
5. **Mandatory Rainwater Harvesting:** Accelerating desiltation (clearing out mud and silt) of traditional village tanks, stepwells, and farm ponds *before* the monsoon starts so they can catch and store every drop of rain that does fall.
6. **Strategic Food Grain Reservoirs:** Maintaining robust buffer stocks of staples (wheat, rice, pulses) via the Food Corporation of India (FCI) to stabilize market supply and clamp down on hoarding or food inflation during a deficit year.
7. **Broadening Crop Insurance:** Ensuring swift, hassle-free payouts through the Pradhan Mantri Fasal Bima Yojana (PMFBY) by leveraging satellite imaging and drones to assess crop damage quickly, keeping farmers out of debt traps.
8. **Building disaster management capacity:** Countries should work on building their capacity to manage and respond to disasters caused by El Niño. This includes establishing effective disaster response strategies, conducting regular drills, and ensuring adequate resources are allocated to disaster management.
9. **Conserving marine ecosystems:** Since El Niño severely impacts marine ecosystems, it is crucial to conserve and protect these ecosystems as much as possible. This includes preventing overfishing, reducing pollution, and protecting marine habitats like coral reefs.

Conclusion: El Niño is not merely a weather event but a development challenge. India needs stronger climate adaptation measures through heat-resilient cities, worker protection & better water management. Climate risk is now economic risk, and its burden falls most heavily on the poor.

Syllabus: GS 1: Geophysical Phenomena: Important Geophysical phenomena
Sources: Business Standard, Bloomberg, Time, The Weather Channel, Climate.gov, Live Mint, NPR, TOI, Reuters, India Today, DTE, Financial Express and BBC, The Hindu

India-Indonesia Relations – Explained Pointwise

India and Indonesia recently held high-level diplomatic talks as External Affairs Minister S. Jaishankar met Indonesian Foreign Minister Sugiono in New Delhi during the **8th India-Indonesia Joint Commission Meeting**. The discussions focused on strengthening the **India-Indonesia Comprehensive Strategic Partnership**, with emphasis on defence cooperation, maritime security, trade, investment, connectivity, food security, and regional issues.

The two nations share deep historical, cultural, and trade ties. Their partnership is increasingly significant for promoting regional stability, economic growth, and rules-based order in the Indo-Pacific region.

How have India-Indonesia Relations evolved over time?

Ancient Era	Long before modern diplomacy, India and Indonesia were deeply connected via maritime trade routes linking Indian coastal states to Java, Sumatra, and Bali. Hinduism and Buddhism traveled seamlessly across the Indian Ocean. This legacy remains vibrant in Indonesia today – from the magnificent 9th-century monuments of **Borobudur** and **Prambanan** to the enduring prominence of the *Ramayana* and *Mahabharata* in Indonesian art, shadow puppetry (***Wayang***), and the unique Hindu culture of Bali.

Early Post-Independence Period (1940s-1950s)	India played a crucial role in supporting Indonesia's struggle for independence from Dutch colonial rule. Under Prime Minister Jawaharlal Nehru, India emerged as a strong advocate for Indonesia's freedom on the global stage. Key developments during this period included: **a. Treaty of Friendship (1951)**: Strengthening cooperation in trade, culture, and military affairs. **b. Non-Alignment and Anti-Colonialism**: Both nations were aligned on principles of non-alignment, peaceful coexistence, and anti-colonialism, leading to their active participation in the 1955 Bandung Conference and the formation of the **Non-Aligned Movement (NAM)** in 1961.
Deterioration in Ties (1960s)	Despite early cooperation, India-Indonesia relations faced setbacks in the 1960s due to geopolitical shifts: **a. India-China Conflict (1962):** India's ties with China worsened post the 1959 Tibetan uprising and the 1962 war, while Indonesia maintained cordial relations with China. **b. India-Pakistan Conflict (1965):** Indonesia openly sided with Pakistan during the 1965 India-Pakistan war, even providing military assistance to Pakistan, causing a strain in Indo-Indonesian ties.
Cold War Era (1966-1980s)	A shift in Indonesia's political landscape led to the gradual revival of ties: **a. President Suharto's Era**: Indonesia distanced itself from China and sought to rebuild relations with India. **b. Maritime Boundary Agreement (1977):** Strengthened cooperation in maritime affairs and regional security. **c. Suharto's Visit to India (1980):** Marked a new phase of improved diplomatic relations between the two nations.
Look East Policy (1990s)	India's economic liberalization in the 1990s and the launch of the **'Look East' Policy** in 1991 significantly boosted Indo-Indonesian ties: **a. Expansion of Economic Ties:** Trade and investment between the two countries witnessed substantial growth. **b. Comprehensive Partnership:** Economic, security, and cultural cooperation became key aspects of bilateral relations.

Act East Policy and Recent Developments (Since 2000s)	With the launch of India's **'Act East' Policy** in 2014, Indonesia emerged as a key regional partner. Notable advancements include: **a. Trade Relations**: Indonesia is India's 2nd largest trading partner in ASEAN (after Singapore), with trade growing from USD 4.3 billion in 2005-06 to US$ 29.40 billion in 2023-24. **b. Comprehensive Strategic Partnership (2018):** PM Modi's visit to Jakarta led to the signing of the Comprehensive Strategic Partnership and a shared vision on Indo-Pacific maritime cooperation. **c. Maritime Cooperation**: Both nations jointly advocate for the resolution of maritime disputes and the finalization of the South China Sea Code of Conduct as per UNCLOS (United Nations Convention on the Law of the Sea). **d. Defense Cooperation**: Indonesia is negotiating with India for the BrahMos missile system, with an estimated deal worth USD 450 million.

What are the key pillars of cooperation between India-Indonesia?

1. Economic & Trade Relations:

- **Bilateral Trade**: Indonesia is India's **second-largest trading partner** in the ASEAN region, with bilateral trade reaching **$28.15 billion in 2024-25.** The goal is to increase the bilateral trade to $50bn.
- **Key Exports & Imports**: India's key imports include coal, palm oil, and rubber, while its key exports are refined petroleum, telecom equipment, and agricultural products.
- **Investment**: Indian investment in Indonesia stands at $1.56 billion, with a focus on mining, textiles, and infrastructure, while Indonesian investment in India totals $653.8 million, primarily in manufacturing and trade.
- **Trade Facilitation**: India and Indonesia have made efforts in trade facilitation, including the ASEAN-India Trade in Goods Agreement (AITIGA) review to reduce trade barriers, and the Local Currency Settlement MoU, which encourages trade in local currencies.
- **Fintech & Digital Payments:** Discussions are underway to link India's Unified Payments Interface (**UPI**) with Indonesia's Quick Response Code Indonesian Standard (**QRIS**) to seamless cross-border retail payments.
- **Andaman-Sumatra Connectivity:** The governments are working to build direct economic and tourism links between India's Andaman and Nicobar Islands and Indonesia's Aceh province, which are separated by less than 150 nautical miles.

2. Strategic & Security Cooperation:

- **Vision Alignment:** India's **Act East Policy** and **SAGAR** (Security and Growth for All in the Region) vision align directly with Indonesia's **Global Maritime Fulcrum** concept.
- **The Sabang Port Project:** The most significant geopolitical initiative is the joint development of the **Sabang Deep-Sea Port** in Sumatra. Located at the western entrance of the Malacca Strait, this port provides India with strategic maritime access to one of the world's busiest choke points.

- **Defence & Security:** Both countries pledged to enhance defense cooperation through initiatives such as Coordinated Patrol, Ex Garuda Shakti (Army), and Ex Samudra Shakti (Naval). Additionally, both sides agreed to set up a Bilateral Maritime Dialogue and a Cyber Security Dialogue.
- **Defense Industry Collaboration**: India-Indonesia Defense Industry Exhibition (2024) focused on co-producing defense equipment, sharing military technology, and increasing maintenance and logistical support for naval vessels.

3. Energy & Health Security:

- **Renewable Energy & Critical Minerals**: Both countries are focused on joint exploration of nickel and bauxite for clean energy and biofuel collaboration for sustainability.
- **Health Cooperation**: Both countries signed MoUs on Health Cooperation and Traditional Medicine Quality Assurance, focusing on digital health and capacity-building for healthcare professionals.

4. Technological Cooperation:

- India's digital initiatives, such as Aadhaar, UPI, and CoWIN, serve as models for Indonesia's digital growth.
- Collaborative efforts in quantum communication, cybersecurity, artificial intelligence, and space technology.

5. Cultural & Educational Cooperation:

- **Language and Symbolism:** The Indonesian national language (Bahasa Indonesia) contains thousands of Sanskrit loanwords, and the national symbol, the *Garuda*, draws directly from Indian mythology.
- **Heritage & Arts**: India supports the restoration of the Prambanan Temple, a UNESCO World Heritage Site in Indonesia, and the Indian Cultural Centers in Jakarta and Bali promote Indian arts and yoga.
- **Education**: Scholarships for Indonesian students available through ITEC (Indian Technical and Economic Cooperation) and ICCR (Indian Council for Cultural Relations) programs

6. Multilateral Cooperation:

- Both countries emphasise the necessity of a free, open, stable, and peaceful Indo-Pacific based on international law.
- Both countries highlighted the significance of ASEAN centrality and collaboration on regional matters such as the ASEAN Outlook on the Indo-Pacific, the India-Indonesia-Australia Trilateral, the Indo-Pacific Oceans Initiative (IPOI), as well as BRICS and the Indian Ocean Rim Association (IORA).

What are the challenges in India-Indonesia relations?

1. Trade and Economic Barriers:

- **Missed Targets**: Bilateral trade for 2024-25 stood at $28.15 billion, falling well short of the ambitious $50 billion target set for 2025. This gap highlights the gap between ambition and current economic traction.
- **Lack of Comprehensive Economic Cooperation Agreement (CECA)**: Unlike Malaysia and Singapore, Indonesia does not have a CECA with India, reducing its competitiveness, particularly in sectors like palm oil.
- **Low utilization of AITIGA**: The ASEAN-India Trade in Goods Agreement (AITIGA) has a utilization rate of only 25%, limiting the benefits that could be gained from the agreement.
- **Trade Imbalance**: While bilateral trade is robust, it is profoundly asymmetrical and heavily skewed in Indonesia's favor. India imports significant quantities of palm oil ($11 billion in 2022) and coal from Indonesia, contributing to a trade imbalance that favors Indonesia.
- **Unrealized trade potential**: Bilateral trade could increase by 33% to reach $61 billion, indicating untapped opportunities for growth in trade.
- **Market Access & Tariffs:** Indian exporters face significant non-tariff barriers in Indonesia, particularly in the pharmaceutical, dairy, and bovine meat sectors.

2. Investment and Competition with China:

- **Dominance of Chinese investments**: Under President Joko Widodo, Chinese investments have overshadowed Indian investments. In 2024, Indonesia signed $10 billion worth of business deals with China, further intensifying competition for investment.
- **Protectionist policies in India**: Indian industries, especially textiles, have raised concerns about the influx of Indonesian products like Viscose Staple Fibre (VSF), fearing increased competition.

3. Geopolitical and Strategic Constraints:

- **Strategic Ambiguity:** Indonesia adheres strictly to its ***Bebas-Aktif*** (Independent and Active) foreign policy. It fiercely avoids taking sides in the U.S.–China rivalry and looks at minilateral groupings like the **Quad** (which includes India) with a degree of caution, fearing they could destabilize ASEAN centrality.
- **The South China Sea vs. Indian Ocean:** While Jakarta faces incursions by Chinese coast guard vessels in its Exclusive Economic Zone (EEZ) around the Natuna Islands, it is highly protective of its economic ties with Beijing (China remains Indonesia's largest trading partner). Indonesia is hesitant to form an overt anti-China military alignment with India, preferring quiet, localized maritime capacity building over aggressive balancing.
- **Regulatory challenges in defence**: Differences in defense procurement processes have delayed joint defense projects, limiting the scope of strategic cooperation between the two nations.
- **The Sabang Port Sluggishness:** The development of the **Sabang Deep-Sea Port** in Aceh is hailed as a geopolitical game-changer due to its proximity to the Malacca Strait. However, actual construction, feasibility studies, and joint investments have moved at a bureaucratic crawl. Delays in upgrading this infrastructure limit the immediate interoperability of the Indian and Indonesian navies.

4. Connectivity and People-to-People Barriers:

- **Limited air connectivity**: Direct flights between India and Indonesia are limited, restricting tourism, business expansion, and people-to-people exchanges.
- **The Andaman-Aceh Gap:** Plans to establish thriving commercial shipping routes, institutional trade, and eco-tourism links between the Andaman & Nicobar Islands and Sumatra have remained mostly on paper due to strict regulatory frameworks on both sides.
- **Visa barriers**: Restrictive visa policies hinder student exchanges, business travel, and cultural engagement, limiting deeper bilateral ties.
- **Underdeveloped People-to-People Ties**: Compared to the high-level diplomatic engagement, connections at the grassroots level – among youth, students, academics, and civil society – remain weak. This lack of societal integration prevents the relationship from developing a strong, self-sustaining foundation beyond government initiatives.

What should be the way forward?

1. **Expand Economic and Trade Integration:** Accelerate negotiations for a Comprehensive Economic Partnership Agreement (CEPA) to address existing trade and investment barriers. This is essential for boosting bilateral commerce, which has historically fallen short of targeted goals.
2. **The Shared Economic Zone:** Finalizing the legal and customs frameworks for direct shipping lines between Aceh and the Andaman & Nicobar Islands would create a sub-regional economic hub, cutting down transit times for goods moving between South and Southeast Asia.
3. **Securing Critical Minerals:** As both countries push for green energy and EV manufacturing, establishing supply chains for Indonesia's massive **nickel** reserves and India's processing capacities is a natural win-win.
4. **Leverage Tourism and Cultural Diplomacy:** Build robust people-to-people ties, particularly among youth and women, by advancing theme-based tourism routes like the RICH (Religious, Cultural & History) plan to connect shared ancient maritime legacies and traditions.
5. **Deepened Collaborations**: Expanding partnerships in IT, energy, and tourism, while fostering cultural ties, positions India as a reliable partner for Indonesia's growth trajectory.
6. **Aviation and Tourism Push:** Both governments need to incentivize airlines to establish direct, daily commercial flights connecting major Indian cities (like Delhi, Mumbai, and Bengaluru) directly to Jakarta and Sumatra, reducing the current over-reliance on connecting hubs like Singapore or Kuala Lumpur.
7. **Manage the China Question Tactfully**: India and Indonesia must identify areas of collaboration beyond the China factor. Both countries can use platforms like BRICS to collectively advocate for the Global South, effectively diluting Beijing's ability to monopolize the developing-world narrative. Acting as co-anchors of a multipolar world order allows India and Indonesia to push back against economic coercion while maintaining pragmatic channels of communication with China.
8. **Multilateral Co-Leadership**: India and Indonesia should expand cooperation in global and regional forums such as the UN, G20, and ASEAN, where countries can only hope to avoid being caught in a US-China bifurcation if they scale up alternative forms of collective action.

Conclusion: India & Indonesia relationship requires a shift from broad-stroke ambition to detailed, coordinated execution. The two nations need to finally fulfill the immense promise of their ancient and modern relationship, becoming true anchors of stability and prosperity in the Indo-Pacific.

Read more: Indian Express
UPSC Syllabus- GS 2– Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

India's Foreign Trade Agreements (FTAs): Approach and Challenges – Explained Pointwise

India has recently accelerated its pursuit of Free Trade Agreements (FTAs) as part of its strategy to deepen global economic integration, diversify export markets, and strengthen supply-chain resilience. Moving beyond its earlier cautious approach, India has concluded FTAs with countries such as United Arab Emirates and Australia, while actively negotiating agreements with the European Union, United Kingdom, and other partners. India now has 15 FTAs covering 27 countries, another 9 agreements with 42 countries are nearing completion – once finalized, India's FTA partners will total 69 countries & could account for ~75% of the country's exports.

What are Free Trade Agreements (FTAs)?

- FTAs are arrangements between two or more countries or trading blocs that agree to **reduce or eliminate customs, tariff and non tariff barriers on substantial trade** between them.
- FTAs, normally cover **trade in goods** (such as agricultural or industrial products) and **trade in services** (such as banking, construction, trading etc.).
- FTAs can **also cover other areas** such as:
    - **Services trade:** market access for banking, insurance, telecom, education, etc.
    - **Investment protections:** guarantees against arbitrary expropriation, dispute resolution mechanisms
    - **Intellectual property:** patent, copyright, and trademark standards
    - **Government procurement:** opening public contracts to foreign bidders
    - **Non-tariff barriers:** harmonising standards, certifications, and customs procedures
    - **Labour and environment:** increasingly common in newer agreements

- Types of Trade Agreements:

Preferential Trade Agreement	Partial tariff reductions on select goods
Free Trade Agreement	Broad elimination of tariffs/barriers between members
Customs Union	FTA + common external tariff
Common Market	Customs union + free movement of labour and capital
Economic Union	Common market + harmonised economic policies

Key Features of FTAs:

1. **Reduction of Tariffs:** Tariffs are taxes imposed on imported goods. FTAs typically eliminate these taxes entirely (zero tariff) or reduce them significantly over a phased period.
2. **Reduction of Non-Tariff Barriers:** NTBs are obstacles like quotas (limits on quantity), burdensome licensing requirements, or unnecessary technical standards. FTAs aim to streamline or remove these.
3. **Rules of Origin:** To prevent goods from non-member countries from entering via the member with the lowest tariff, FTAs specify that only goods "substantially transformed" or with a high percentage of local content within the member countries qualify for the preferential tariff rate.
4. **Trade in Services:** Many modern FTAs cover services (e.g. banking, insurance, consulting, telecommunications), allowing companies to set up operations in partner countries under fair conditions.
5. **Intellectual Property (IP) Protection:** FTAs often set standards for protecting patents, copyrights, and trademarks to encourage innovation and creative industries.
6. **Investment Provisions:** These include protections for foreign investors, such as fair treatment, protection from expropriation, and mechanisms for dispute resolution (e.g. investor-state dispute settlement, or ISDS).
7. **Dispute Settlement Mechanism:** A formal process for resolving disagreements between member countries over the interpretation or implementation of the agreement.

Pros & Cons of FTAs:

Pros	Cons
Lower Prices for Consumers: Imported groceries, tech, and clothing become cheaper because import taxes are removed.	**Job Displacement:** Domestic industries that cannot compete with cheaper foreign imports may downsize or close, hurting local manufacturing.
Market Expansion: Local businesses gain friction-free access to millions of new buyers abroad, boosting export potential.	**Intellectual & Regulatory Pressure:** Smaller nations sometimes have to alter domestic laws to align with larger trade partners.

Increased Foreign Investment: Companies are more likely to build factories or offices in a country that has stable, duty-free trade access to major global markets.	**Dependency Risks:** Relying too heavily on another country for critical goods (like tech or pharmaceuticals) can expose a nation to supply chain shocks.
Increased efficiency: as countries specialize in what they do best.	**Loss of policy space**: Governments cannot easily raise tariffs to protect a struggling domestic industry.
Boosts economic growth and innovation through competition.	**Trade diversion:** Buying from an FTA partner that is less efficient than a non-member, simply because of tariff preferences.

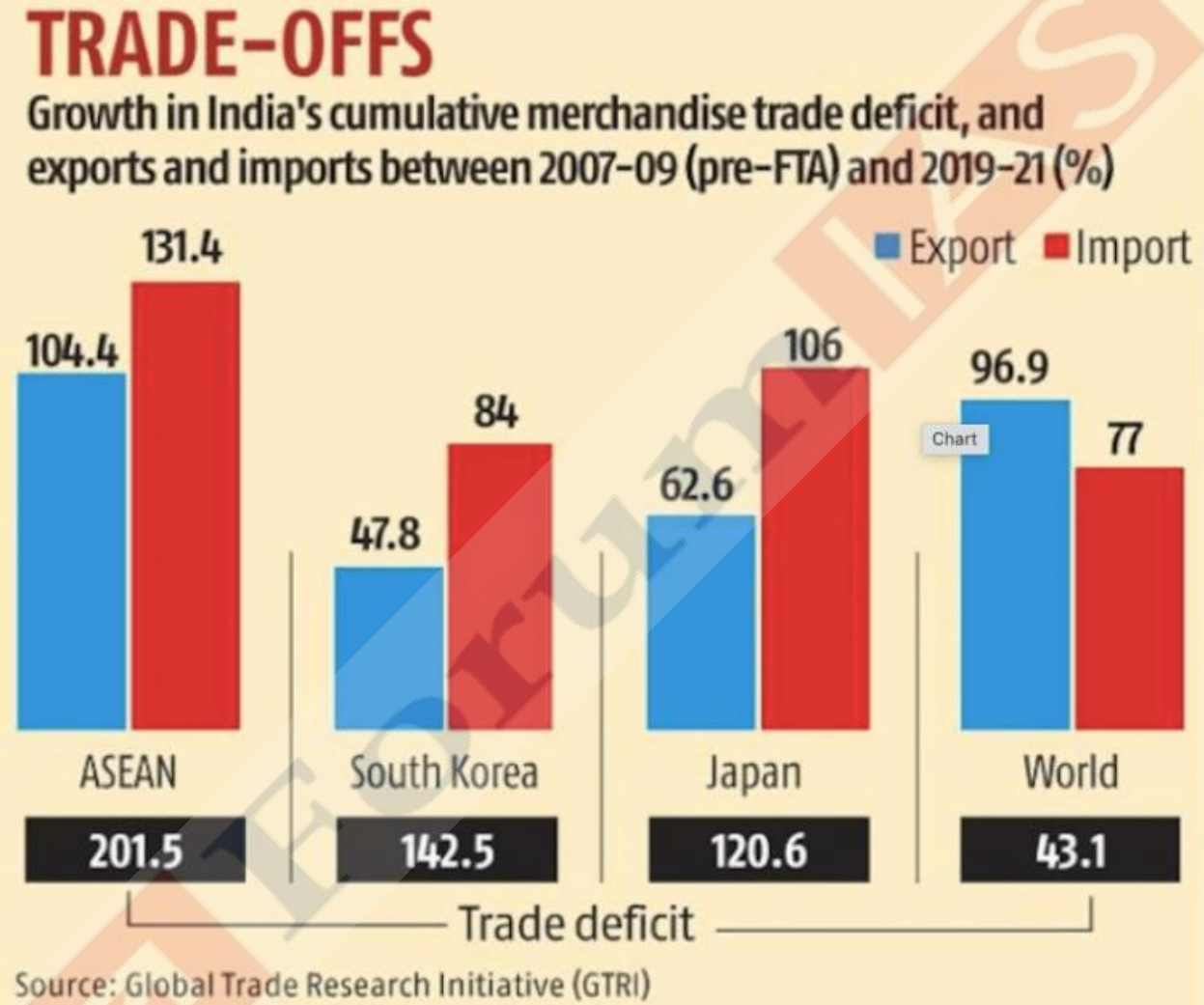
What is the relationship between Multilateralism under the WTO Regime and the FTAs?

- **Article 1 of GATT** (General Agreement on Tariffs and Trade) deals with the **Most Favoured Nation (MFN) principle of the WTO**. It states that "any advantage, favour, privilege, or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties". This means that if tariffs are lowered or eliminated on a particular good from the US, they must be lowered/eliminated for the same good from the EU or the UK or any other country.
- However, derogations **(exemptions) from this MFN principle are permitted for forming FTAs** under specific conditions of the WTO Agreements. Article XXIV of GATT for goods and Article V of GATS (General Agreement on Trade in Services) deal with these exemptions.
- The specific conditions (Article XXIV of the GATT) permitting FTAs are:
    1. FTA members shall not erect higher or more restrictive tariff/non-tariff barriers on trade with non-members than existed prior to the formation of the FTA;
    2. Elimination of tariffs and other trade restrictions be applied to "*substantially all the trade between the constituent territories in products originating in such territories*" i.e., if FTA is signed between two countries, the **trade barriers should be eliminated for nearly all goods/**
    3. Elimination of duties and other trade restrictions on trade within the FTA to be accomplished "*within a reasonable length of time*" meaning a period of no longer than 10 years.
- The 'Enabling Clause' allows developing countries to form preferential trading arrangements without adhering to the conditions under Article XXIV.

India's Stance towards FTAs:

- India had signed its first Trade Agreement in 1975. It was a Preferential Trade Agreement known as **Bangkok Agreement** (renamed **Asia-Pacific Trade Agreement** in 2005).
- India signed the **India-Sri Lanka FTA** in 1998. This was the first time duties were eliminated on substantial tariff lines/goods.
- After the **'Look East Policy'** was announced, several agreements were signed with East Asian countries. This includes Agreements with Japan, South Korea and the ASEAN.

- However, the outcomes of these FTAs were not favorable. While the trade with the FTA partner countries grew, the growth rate of imports was much greater than exports leading to rise in trade deficit.
- FTAs benefited India's trade partners more than Indian firms. As a result, the Government became wary of signing more FTAs. India withdrew from RCEP in 2019. The fear was that the agreement included inadequate safeguards for Indian industries and that Indian market will be flooded with Chinese goods.



Source: *Business Standard. India's imports with FTA partner countries (South Korea, Japan, ASEAN) grew at a much faster rate than exports.*

- But since 2021, India has broken a decade-long drought by signing and concluding a wave of major pacts for e.g. Treaties with the **UAE** (May 2022), **Australia** (December 2022), the **EFTA bloc** (Switzerland, Norway, Iceland, Liechtenstein in October 2025), and most recently, **Oman** (which officially went into effect on June 1, 2026). The Government is now seeking more investment,

technology and potential markets for Indian goods in exchange for access to India's domestic market to foreign goods.

- India concluded a massive historic FTA with the **European Union (EU)** in January 2026, finalized a framework for an interim trade agreement with the **United States** in February 2026, and is actively preparing to implement signed pacts with the **UK** and **New Zealand.**

What advantages have FTAs brought to India?

1. **Massive Surges in Export Volumes**:
    - **India-UAE CEPA:** Following the 2022 India-UAE CEPA, bilateral trade crossed a historic **$100 billion**. Indian non-oil exports to the UAE surged by over 25% annually, driven by duty-free access for Indian gems, jewelry, textiles, and engineering goods.
    - **India-Australia ECTA**: Under the India-Australia ECTA, Australia granted immediate preferential access to Indian goods. By January 1, 2026, **100% of Indian exports entered Australia completely duty-free**, causing India's exports to Australia to more than double compared to pre-FTA levels.
2. **Securing Cheaper Raw Materials for "Make in India"**:
    - **Steel & Power:** Under the Australia pact, India eliminated tariffs on **Australian coking coal** and critical metallic ores. This provided an uninterrupted, cheaper supply of vital raw materials directly to Indian steel plants and infrastructure projects.
    - **Textiles & Electronics:** Deals with nations like the UAE and the EFTA bloc have reduced input costs on petrochemicals, polymers, and raw fabrics, allowing local MSMEs to manufacture finished goods at a lower cost base.
3. **Binding Commitments to Foreign Direct Investment (FDI)**: In India's agreement with the European Free Trade Association (Switzerland, Norway, Iceland, and Liechtenstein), India secured a formal commitment to **$100 billion in direct, long-term investments** into India over 15 years. Crucially, this agreement excludes volatile stock-market portfolio flows and focuses purely on building domestic industrial capacity and factories.
4. **Employment Generation**: Since India has strictly focused its tariff-cutting advantages on high-employment, labor-intensive sectors (like textiles, footwear, leather, and toys), the Ministry of Commerce estimates that the Australia and UAE pacts alone are on track to generate upwards of **1.2 million to 1.5 million new domestic jobs.**
5. **Advantage for Indian Service Sector**:
    - **Extended Visas:** Treaties with Australia and the UK include dedicated clauses granting extended post-study work visas (up to four years) for Indian STEM graduates.
    - **Mutual Recognition Arrangements (MRAs):** India has begun signing MRAs where foreign countries legally recognize Indian professional qualifications. For example, recent pacts have streamlined cross-border recognition for Indian IT professionals, engineers, accountants, and even traditional AYUSH/Yoga experts, allowing them to practice abroad without repeating expensive local degrees.
6. **Strategic & Geopolitical Gains**: Deepening ties with Gulf states (UAE, soon potentially Saudi Arabia and GCC) anchors energy security and diaspora remittance flows. Agreements with developed economies signal India's openness, supporting its "Viksit Bharat" and supply-chain-diversification narrative. Thus, FTAs help India position itself as an alternative to China in global supply chains. Thus, beyond economics, FTAs have served India's strategic interests.

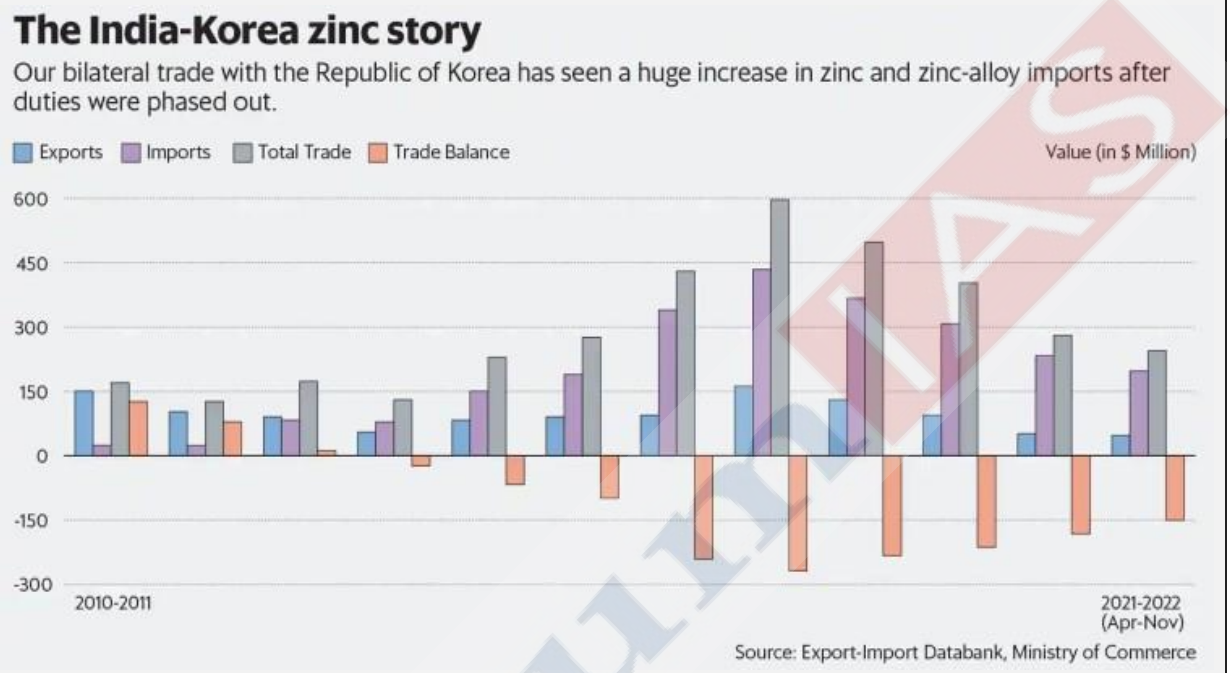
What are the challenges associated with Free Trade Agreements (FTAs) for India?

1. **Widening Trade Deficits**: Since implementing older agreements, India's trade deficit with ASEAN countries has ballooned by over 380%, with South Korea by roughly 268%, and with Japan by nearly 318%. This trend persists even in recently concluded deals. In fiscal year 2025, India exported $48.6 billion to its newer partners (UAE, Australia, Mauritius, and EFTA) but imported nearly $100 billion from them, triggering a trade deficit exceeding **$50 billion**.
2. **Tariff Asymmetry**: India's FTAs often yield asymmetric tariff benefits because many partner countries already have highly liberalized trade regimes. Countries such as Singapore, Japan, Australia, and the UAE maintain very low import tariffs, whereas India's trade-weighted tariff averages around 12.6%. As a result, when tariffs are eliminated under an FTA, foreign exporters gain a significant price advantage in the Indian market. In contrast, Indian exporters receive limited additional market access benefits since partner markets were already largely open before the agreement.
3. **Low "Utilization Rates"**: Getting a great tariff discount on paper is meaningless if businesses do not actually use it. India's FTA utilization rate stands at a poor **20% to 30%** for eligible exports. In stark contrast, developed economies sit at 70% to 80% utilization, and competitors like Vietnam and Mexico operate at 40% to 50%.
4. **Inverted Duty Structure**: FTAs have aggravated India's inverted duty structure, where duties on raw materials exceed those on finished products. Domestic manufacturers may pay 7.5–10% import duties on inputs such as steel and aluminum, while fully assembled machinery and engineering goods from FTA partner countries often enter duty-free. This creates a cost disadvantage for Indian producers, raising domestic production costs and making it difficult for local industries to compete with cheaper imported finished goods in the domestic market.
5. **Non-Tariff Barriers**: Indian agricultural and pharmaceutical exports are frequently rejected or delayed by European and American authorities citing sanitary, phytosanitary, and rigorous packaging measures. Furthermore, newer-generation FTAs (like the India-EU FTA) introduce new NTBs for e.g. EU's **Carbon Border Adjustment Mechanism (CBAM)** effectively imposes a carbon tax on imports like steel and aluminum. This adds significant costs for Indian manufacturers who may not yet have green technologies.
6. **Services Liberalisation Asymmetry**: India's core comparative advantage lies in services – IT, software, healthcare, education, professional services. Yet most FTAs India has signed are heavily weighted toward goods, not services. Partner countries are reluctant to liberalise **Mode 4** (movement of natural persons) – the most relevant mode for Indian services exports. Visa restrictions, work permit quotas, and mutual recognition of qualifications remain barriers even within FTA frameworks.

India-South Korea CEPA and Zinc Trade:

- The India-South Korea Comprehensive Economic Partnership Agreement came to force in January 2010. At that time, India used to export considerable amount of Zinc to South Korea (Refer graph). Korea had low production and India had a weak domestic demand. As part of CEPA, the duties on zinc trade were eliminated.
- Since 2010, South Korea has increased its manufacturing and smelting capabilities. It has also lowered logistical costs. In addition, it was also helped by the 'smart free trade agreement negotiations'.
- Zinc trade between two countries has completely reversed since then. South Korea now contributes 52% of India's Zinc imports. This has adversely impacted India's domestic zinc smelting firms, especially in the MSME sector.

- South Korea does not possess zinc reserves/mines. It exports zinc from abroad, processes it and re- exports. Experts feel if India had a minimum 35% value addition clause under Rules of Origin, the zinc trade would not have distorted.
- This shows that India must be very careful and **consult industry at every stage while signing new FTAs**. Clauses, such as related to say Rules of Origin, should be carefully negotiated.



Source: *Mint. India's zinc trade with South Korea reversed in 2013-14 when India's trade balance in Zinc became negative, i.e., India became a net importer of zinc.*

Rules of Origin:

- Rules of Origin (RoO) are the criteria needed to determine the national source of a product. Their importance is derived from the fact that a number of trade policy measures are applied on the basis of source of imports.
- RoOs have become vital because of globally integrated supply chains, where value addition occurs across different nations (e.g. manufacturing of a component in Vietnam and Taiwan, assembly in India etc.).
- Restrictions like tariffs and duties are applied on the basis of country of origin, e.g. India may want to restrict imports from China but Chinese goods may find their way into Indian markets through indirect route via another country. Hence, it becomes necessary to have clearly defined rules of origin.

What should be India's approach regarding the FTAs?

1. **Create a Dedicated "FTA Impact Monitoring Authority"**: India needs an independent monitoring authority tasked with:

- **Real-time tracking** of import surges to trigger early warning "safeguard duties" before foreign goods overwhelm local markets.
- **Aisling performance audits** on a sector-by-sector basis to see exactly which industries are winning or losing under active FTAs.
- **Accountability mechanisms** for trade negotiators to ensure the concessions they win translate into actual shipments.

2. **Eliminate the "Inverted Duty Structure"**: The government must proactively restructure its domestic customs duties. Before a new FTA kicks in, standard MFN (Most-Favored-Nation) tariffs on critical components, raw minerals, and chemicals used by local factories must be reduced below the tariff levels of the fully assembled products arriving from trade partners.
3. **Launch an "FTA Utilization" Outreach Program**: Set up dedicated trade helpdesks across industrial hubs (like Surat for textiles or Tiruppur for garments) to educate small-scale entrepreneurs on how to price and package their goods to clear foreign FTA criteria.
4. **Fight Non-Tariff Barriers (NTBs) via Mutual Recognition:** India's negotiators must prioritize **Mutual Recognition Agreements (MRAs)** and conformity assessments. If an Indian regulator (like the FSSAI for food or the CDSCO for pharma) tests and certifies a product inside India, partner nations must be legally bound to accept that certification without demanding repeating, redundant local testing at European or American ports.
5. **Building Digital Capabilities**: The Government must work on building its digital capabilities and infrastructure in key export sectors through a '**Digitally Informed Foreign Trade Policy**', with a focus on **enhancing India's trade competitiveness**. This can be achieved by developing digital infrastructure for trade, building digital skills in trade-able sectors, increasing the share of technology content in exports, and leveraging advanced technologies (Big Data Analytics, IoT, and Blockchain) for evidence-based and informed trade policy decisions.

Conclusion:

India's approach to should involve learning from past imbalances, targeting high-opportunity partners, innovating with investment-linked and digitally-enabled agreements, and building a robust domestic ecosystem to enforce and benefit from them. The goal is to transform FTAs from static documents into dynamic tools for economic resilience and growth.

Syllabus: GS III, Indian Economy and Issues related to Growth
Source: Business Standard, The Hindu BusinessLine, Indian Express, Economic Times, IBEF, EEPC, Indian Express

India-Nepal Relationship – Explained Pointwise

India and Nepal share deep civilizational, cultural, and people-to-people ties, underpinned by an open border and close economic cooperation. However, periodic disagreements over boundary issues, including recent remarks by Nepal's Prime Minister on the border dispute, highlight persistent sensitivities. Nepal's PM indicated that the the boundary dispute is not one-sided & should be resolved through diplomatic channels – suggest a cautious move towards a more rational approach in India-Nepal relations.

Evolution of India-Nepal Relationship:

Civilisational & Colonial Foundations	• The relationship predates modern statehood. The relationship is built on deep-rooted historical, cultural, and geographical ties, often referred to as "**Roti-Beti ka Rishta**" – ties of food and family. • The **Treaty of Sugauli (1816)** between Nepal and British India defined Nepal's boundaries along the Kali River, laying the groundwork for later territorial interpretations and disputes like Kalapani and Susta. • The British also began recruiting **Gorkha soldiers** – a tradition that continues to define the human dimension of the relationship.
The Foundational Era (1950-1962)	• Following the Chinese annexation of Tibet, India and the ruling Rana dynasty of Nepal signed the **1950 Treaty of Peace and Friendship**. Driven by mutual security fears, the treaty established an open border and gave reciprocal rights to citizens. • During this period, India acted as a security guarantor, even placing military checkposts along Nepal's northern border with Tibet.

Era of Divergence & the 'China Card' (1962-1990)	• To balance India's overwhelming influence, the monarchy began playing the **"China Card" –** cultivating ties with China to gain diplomatic leverage over India. • When Nepal attempted to purchase weaponry from China, India allowed a key trade treaty to lapse, leading to a 15-month economic crisis in 1989 that severely damaged Nepal's economy and nationalist sentiment.
Democratic Transition & Crisis (1990-2015)	• This era shifted the relationship toward economic and developmental frameworks. It saw a focus on developmental partnerships, marked by key agreements like the **Mahakali Treaty (1996)** to harness Nepal's hydropower potential. • Nepal's decade-long Maoist insurgency (1996–2006) and subsequent transition to a federal republic created political turbulence, but also an opportunity. • Relations hit a historic low in 2015 over Nepal's new constitution. The Madhesi population in the plains felt marginalized, and an informal border blockade led to severe fuel shortages in Nepal, fueling widespread anti-India sentiment and pushing Nepal closer to China's Belt and Road Initiative (BRI).
Geopolitical Diversification & the "Cartographic War" (2015–2024)	• This phase was defined by Nepal asserting strategic autonomy and using China as a counterweight. • The 2020 dispute over the **Kalapani-Lipulekh region** led to Nepal's "New Map" amendment, signalling that Nepal would no longer accept the status quo in border management.
Recalibration & Regional Reset (2024–Present)	• Realizing that a heavy-handed approach pushed Nepal closer to Beijing, India pivoted to economic pragmatism. Prime Minister Modi introduced the **HIT formula** (Highways, Information ways, Transways). • Energy has become a primary pillar. India finalized agreements to import up to 10,000 MW of electricity from Nepal and greenlighted a breakthrough trilateral energy trade allowing Nepal to export electricity to Bangladesh via the Indian grid.

What are the various areas of cooperation between India & Nepal?

1. **Connectivity and Infrastructure**: Physical and digital connectivity is the cornerstone of the modern partnership, helping landlocked Nepal access maritime trade:
    - **Rail Links:** The **Jaynagar–Kurtha–Bijalpura** rail link is Nepal's first-ever operational broad-gauge railway line built with Indian assistance. Plans are underway for a direct line connecting Raxaul to Kathmandu.
    - **Integrated Check Posts (ICPs):** To streamline cross-border trade, ICPs have been operationalized at vital border points like **Birgunj**, **Biratnagar**, **Nepalgunj**, and **Bhairahawa**.

- **Roads:** India has actively assisted in upgrading the **Hulaki Rajmarg (Postal Highway)** across the Terai region of Nepal.

2. **Energy and Power Trade**: Energy has evolved into one of the most successful areas of bilateral cooperation:
   - **Hydropower Development:** Indian companies are heavily investing in mega projects in Nepal, such as the **Arun-3** and West Seti hydroelectric projects.
   - **Power Grid & Export:** Under a **Long-Term Power Trade Agreement**, India imports electricity from Nepal, allowing Kathmandu to monetize its surplus energy. A trilateral agreement also allows Nepal to export electricity to Bangladesh via the Indian grid.
   - **Petroleum Pipelines:** The **Motihari–Amlekhgunj pipeline** is South Asia's first cross-border petroleum products pipeline. Work continues to extend this network further into Chitwan and Jhapa.
3. **Culture and People-to-People Ties**: The **1950 Treaty of Peace and Friendship** allows citizens of both countries to move freely across the border without passports or visas to live, work, and own businesses. Cultural ties are formally anchored by **Sister-City Agreements** that link shared heritage sites for e.g. Kathmandu – Varanasi, Janakpur – Ayodhya, Lumbini – Bodhgaya.
4. **High Impact Community Development Projects (HICDPs)**: Since 2003, India has undertaken nearly 600 HICDPs across all seven provinces of Nepal. These projects are in sectors like education, health, agriculture, drinking water, and sanitation. Recently, the cost limit for individual projects was increased to Rs 20 crore.
5. **Joint Exercises:** The two armies conduct a regular, major annual joint military exercise called **Exercise Surya Kiran** to enhance interoperability in mountain warfare and counter-insurgency.
6. **Disaster Relief:** India acts as a first responder during humanitarian crises in Nepal – most notably during the devastating 2015 earthquake, deploying specialized NDRF teams and massive relief materials.
7. **Multilateral Forums:** Nepal and India maintain close coordination in the UN, SAARC, and BIMSTEC. Nepal consistently supports India's bid for permanent UNSC membership, while India supports Nepal's "Landlocked Developing Country" interests.

What is the Significance of India-Nepal Relationship?

1. **Geopolitical & Strategic Significance**:
   - **The Himalayan Buffer:** Nepal serves as a vital geographic buffer zone between India and China. The northern border of Nepal is guarded by the Himalayas, making its territory India's first line of defense in the central Himalayan region.
   - **The Shared Border Vulnerability:** India and Nepal share a 1,850 km long, porous border that touches five Indian states (Uttarakhand, Uttar Pradesh, Bihar, West Bengal, and Sikkim). Because the border is open, political stability and effective security cooperation in Nepal are critical to preventing transnational crime, smuggling, and the infiltration of hostile actors into India's heartland.
2. **Economic & Commercial Significance**:
   - **Economic Interdependence:** India is **Nepal's largest trading partner**, accounting for over 60–65% of Nepal's trade (USD 8.5 billion in 2024). India provides petroleum, electricity, and essential commodities, while Nepal's vast hydropower potential offers clean energy opportunities for India. Remittances from 600,000 Nepali workers in India sustain Nepal's economy.
   - **Gateway for a Landlocked Nation:** Nepal is geographically landlocked and surrounded by India on three sides. India provides Nepal with essential transit access to sea ports (like

Kolkata and Vishakhapatnam) for its third-country trade, acting as its largest trading partner and economic lifeline.
    - **India's Energy Security:** Nepal possesses immense hydropower potential (estimated at over 40,000 MW of commercially viable power). By investing in Nepalese hydro projects, India gains clean energy to fuel its growing economy, while Nepal earns revenue by exporting its surplus electricity to India and Bangladesh.
3. **Cultural & Civilizational Significance:**
    - **Open Border & Shared Lives:** Unlike any other two sovereign neighbors in the region, citizens of India and Nepal do not need visas or passports to cross the border. Millions of Nepalese citizens live, work, own property, and do business in India on equal terms with Indian citizens.
    - **Religious & Spiritual Geography:** Both countries share deep Hindu and Buddhist roots. The sacred geography of the region is deeply intertwined – linking Pashupatinath (Kathmandu) with Kashi Vishwanath (Varanasi), and Muktinath with temples across India. Janakpur (the birthplace of Goddess Sita in Nepal) is culturally tied to Ayodhya (the birthplace of Lord Ram in India), and Lumbini (the birthplace of Buddha in Nepal) connects seamlessly to India's Buddhist circuit (Bodhgaya, Sarnath, and Kushinagar).
    - **Gurkha Legacy:** The recruitment of Gurkha soldiers into the Indian Army (under the 1947 Tripartite Agreement) is a historic symbol of shared valor. These soldiers serve as a living bridge between the two nations.
4. **Political & Security Significance**:
    - **Border Security:** Cross-border crimes (smuggling of narcotics, counterfeit currency, and wildlife parts) and the movement of insurgent groups (from India's northeast) require daily, seamless coordination between the Sashastra Seema Bal (SSB) and Nepal's Armed Police Force (APF).
    - **Constitutional Stability:** India has a direct stake in Nepal's political stability. A functioning, democratic, and inclusive Nepal prevents the emergence of safe havens for anti-India elements and ensures the smooth flow of economic activity.
    - **Disaster Response:** During the 2015 earthquake (**Operation Maitri**) and the 2014 floods in Uttarakhand, India acted as the "first responder" for Nepal. This capability is unmatched by any other country.

What are the challenges in the relations between the two countries?

1. **Territorial and Boundary Disputes**:
    - **The Western Tri-junction (Kalapani, Lipulekh, and Limpiyadhura):** This region sits at a crucial India-Nepal-China tri-junction. India administers the territory. Nepal, however, claims the river Kali originates further west, placing the entire region within its borders. Tensions flared when Nepal published a new political map incorporating these areas, cementing the dispute into its constitution.
    - **The Susta Dispute:** Located in the south, this dispute is driven by nature rather than maps. Over decades, the changing, shifting course of the **Gandak River** has altered the physical landscape, leading to constant cross-border disagreements over agricultural land ownership.
2. **Economic Dependence**:
    - **Dependence on Trade Routes**: Nepal's access to the sea for its global trade is entirely dependent on transit routes through India. This has, in the past, led to economic blockades and supply disruptions when bilateral relations are strained.

- **Trade Asymmetry**: Nepal imports over 64% from India but exports less than 10% to India, creating persistent economic asymmetry. While this is a standard trade relationship, it contributes to a feeling of economic dependency in Nepal.

3. **The China Factor**:
    - **BRI & Chicken's Neck:** Nepal officially joined China's **Belt and Road Initiative (BRI)**. This led to growing unease from India, particularly concerning the strategic implications of BRI projects near the vulnerable Siliguri Corridor – the narrow 20–22 km stretch connecting India's mainland to its northeastern states.
    - **Trans-Himalayan Railway:** Nepal's growing engagement with China's BRI, including USD 3 billion in loans and projects like the Trans-Himalayan Railway, increases Beijing's influence, challenges India's traditional primacy, and heightens strategic competition in the Himalayas.
4. **Security and the Challenge of an Open Border**:
    - **Security Vulnerabilities**: The border is not continuously fenced, and in some stretches, particularly in Bihar's Seemanchal region, there are significant gaps (4-5 km) between border outposts. This creates blind spots that are exploited by criminals.
    - **Cross-Border Crime**: This open border facilitates the **smuggling of narcotics, counterfeit currency, and goods**, as well as the movement of insurgent groups who can use Nepali territory as a safe haven.
5. **The Gurkha Recruitment & "Agnipath" Deadlock**: With India's introduction of the **Agnipath Scheme-**which transitioned military recruitment into short-term, 4-year tours of duty rather than permanent pensions – the Nepalese government suspended the recruitment of Gurkhas into the Indian Army. Kathmandu argues that the new terms violate the 1947 Tripartite Agreement and leave young Nepalese veterans vulnerable without long-term retirement security.
6. **The "Big Brother" Syndrome:** Many within Nepal's political elite and growing youth population view the **1950 Treaty of Peace and Friendship** as unequal and paternalistic. They argue it infringes on Nepal's sovereign autonomy, particularly regarding independent weapons procurement and foreign policy choices.
7. **Hydro-Hegemony**: India's position as the primary market and sole transit route for Nepali power gives it significant leverage. This has led to concerns in Nepal about a "hydro-hegemonic" relationship where India has a dominant say in Nepal's water resource development.
8. **Political Instability in Nepal**: Nepal's foreign policy is shaped by its turbulent internal politics. Governments change frequently, and no government has completed a full five-year term in decades. Now, heavily influenced by youth-led anti-corruption movements (often referred to as Nepal's "**Gen Z movement**"), the rise of non-traditional parties, such as the **Rastriya Swatantra Party (RSP)**, means India can no longer rely on long-standing relationships with old-guard elites.

What should be the way forward?

1. **Acknowledge Strategic Autonomy:** India must recognize that a democratic, modern Nepal will naturally engage with multiple global powers, including China and the United States. New Delhi should avoid treating Kathmandu's foreign policy as a zero-sum game, focusing instead on being a more efficient, reliable, and non-interfering partner.
2. **Rebalance Trade: From Dependence to Interdependence**:
    - **Market Access for Nepali Exports:** India should reduce non-tariff barriers on Nepal's goods, particularly in agro-processing, herbs, and light manufacturing, where Nepal has genuine comparative advantage.

- **Joint Industrial Corridors:** Establishing SEZ-linked industrial zones along the border – connecting Nepali labour and Indian capital and logistics – could transform the trade relationship from extractive to productive.

3. **Border Dispute Settlement**: Open, public debate over territorial disputes like Kalapani, Lipulekh, and Susta often triggers nationalist rhetoric that stalls progress. The path forward lies in activating high-level technical boundary committees to map, clear, and resolve disputes quietly based on historical evidence.
4. **Smart Border Management:** The open border must be preserved for citizens, but security against transnational crime must be modernized. Transitioning to digital profiling, biometric monitoring, and real-time intelligence-sharing between security agencies will secure the border without disrupting the daily lives of local communities.
5. **Modernize People-to-People Connections**: The "Roti-Beti" narrative resonates deeply with older generations, but a younger, hyper-connected Nepalese population prioritizes digital innovation, entrepreneurship, and job creation. India should expand tech-driven partnerships, such as cross-border startup incubators, space-tech collaborations, and deeper UPI digital financial integration.
6. **Resolve the Agnipath Impasse**: India and Nepal should negotiate a special dispensation or post-service rehabilitation framework under the Agnipath scheme to address Nepal's concerns regarding the long-term financial security and employment of its young veterans. A tailored recruitment model for Nepalese Gorkhas – perhaps offering longer service or clear post-service pathways – could resolve the current recruitment deadlock.
7. **Make Energy the Anchor of the New Partnership**: By strengthening grid connectivity, simplifying trade regulations, and ensuring long-term power purchase agreements, Nepal and India are transforming energy from a domestic challenge into a shared regional opportunity. The landmark 10,000 MW deal and the first tri-national energy transit to Bangladesh are the right template — but execution must improve.

Conclusion: The India-Nepal relationship remains a structural necessity. By shifting from a security-first approach to infrastructure connectivity, water cooperation, and mutual respect, both nations can transform historic ties into a resilient, prosperous partnership.

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Industrial Disasters – Causes & Way Forward – Explained Pointwise

India has experienced numerous **industrial disasters** over the decades, ranging from chemical leaks and mining accidents to factory fires and structural collapses. Recently, a blast occurred at a steel plant in Vizag that killed 9 workers. Last year also, a lethal accident happened in the pharma unit of Sigachi Industries in Hyderabad that led to the death of 36 workers there, similarly, 8 workers were killed in Tamil Nadu at a firework manufacturing unit in Virudhunagar district.

The frequency of such accidents raises the question of safety at industrial places in India & is likely to have a negative bearing on the manufacturing sector & trade from it for India. Thus, it is important to understand what steps the government has taken & should take to ensure that such disasters do not occur in future.

Notable INDUSTRIAL DISASTERS in India:

Bhopal Gas Tragedy (1984)	• **Cause:** Leak of **methyl isocyanate (MIC)** gas from Union Carbide plant. • **Impact:** Over **15,000 deaths**, 5 lakh+ affected • It was the world's worst industrial disaster & led to **Environmental Protection Act (1986)**

Chasnala Mining Disaster (1975)	• **Cause:** An explosion, likely triggered by a pocket of methane gas, compromised a thin wall of coal separating the active mine shaft from an abandoned, flooded reservoir above it. • **Impact:** Millions of gallons of water rushed into the deep tunnels at an uncontrollable speed. **372 miners** were trapped deep underground and drowned.
Jaipur IOC Depot Fire (2009)	• **Cause:** Leak of petrol vapour at IOC oil terminal. • **Impact:** The fire raged uncontrollably for over a week, completely consuming 11 massive fuel storage tanks. The explosions **killed 12 people**, injured over 130, and forced the evacuation of roughly half a million residents.
NTPC's Feroz Gandhi Thermal Power Plant (2017)	• **Cause:** Pressure build-up in boiler due to excessive ash accumulation which led to tube failure. • **Impact:** The blast resulted in **45 fatalities** and left close to 100 people with severe, life-altering third-degree burns.
Vizag Gas Leak (2020)	• **Cause:** Styrene gas leak at LG Polymers chemical plant. • **Impact:** The toxic vapor drifted over a 5-kilometer radius into surrounding residential areas early in the morning. It resulted in **13 deaths** and left more than 1,000 people hospitalized with acute respiratory issues, neurological distress, and temporary blindness.
Neyveli Lignite Plant Explosion (2020)	• **Cause:** Boiler explosion
Vedanta's Thermal Power Plant (2026)	• **Cause:** Failure of Primary Air fan that led to a dangerous pressure build-up inside the boiler.

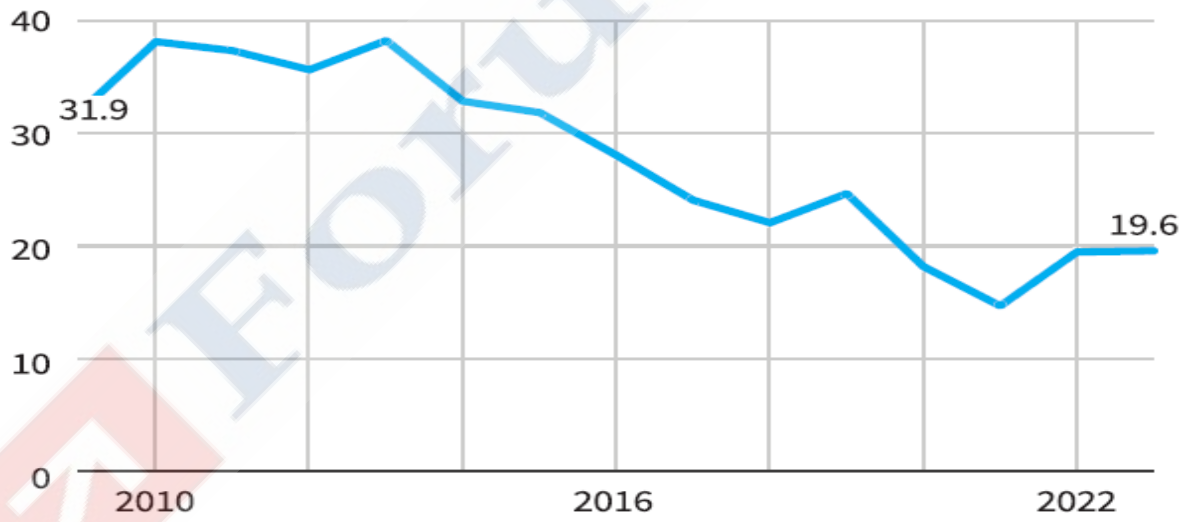
What are the CAUSES of industrial disasters in India?

1. **Inadequate Inspections:** State-level Factory Inspectorates and pollution control boards are often understaffed, underfunded, and lack the technical expertise to conduct thorough and frequent inspections of industrial units, especially those handling hazardous chemicals. This leads to lax enforcement of existing safety and environmental regulations.

Chart 5: Inspectors per factory among the States with the highest number of factories as of 2023

	Number of factories	Inspectors of Factories	Factories per inspector
Tamil Nadu	50,669	106	478
Gujarat	49,246	81	608
Maharashtra	39,533	44	898
Haryana	25,607	35	732
A.P.	24,642	42	587
Kerala	22,601	53	426
Telangana	22,118	27	819
Karnataka	18,389	48	383
Delhi	13,616	7	1,945
Rajasthan	11,014	27	408

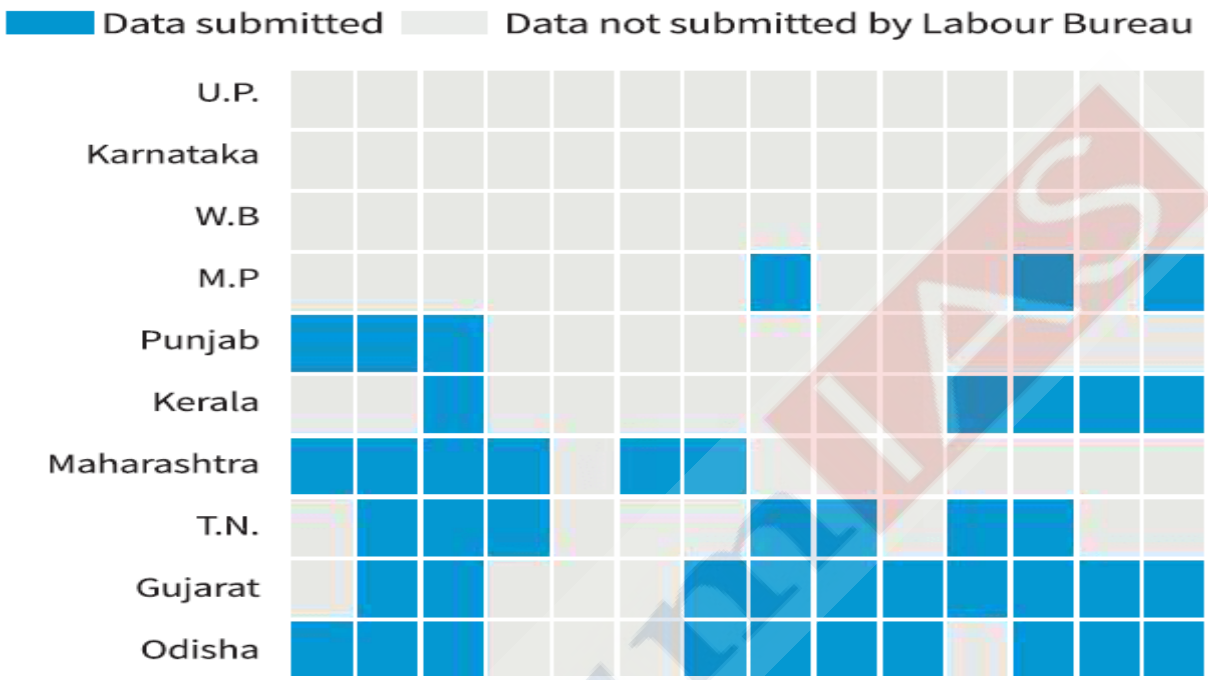
Chart 6: The share of factories inspected by DGFASLI each year (in %). The inspections have dropped significantly in the recent years, perhaps due to the staff crunch



2. **Discrepancies in Collection of Safety Data**: The **Directorate General Factory Advice Service and Labour Institutes (DGFASLI)** plays a key role in implementing the **Occupational Safety, Health and Working Conditions (OSH) Code, 2020**. It compiles industrial accident data through its annual **Standard Reference Notes (SRNs)**. Each SRN presents accident statistics from two sources: data collected by the Labour Bureau and information obtained directly by DGFASLI through correspondence with Chief Inspectors of Factories. However, significant discrepancies between the two datasets highlight persistent

shortcomings in accident reporting and data collection.

Chart 7: Many States did not furnish data on fatal and non-fatal incidents, either to the Labour Bureau, or DGFASLI, as per the SRNs. U.P. , Karnataka and W.B. did not provide data even once



3. **Inadequate Training and Awareness:** Many workers, especially contractual laborers, lack proper training in handling hazardous materials, operating machinery safely, and emergency response procedures. This often stems from industries trying to cut costs.
4. **Lack of Safety Culture:** A poor safety culture within an organization, where safety is not prioritized by management and employees alike, is a significant underlying cause. This can manifest as a disregard for safety protocols, shortcuts in operations, and a failure to report near misses.
5. **Equipment Failure and Maintenance Issues:** Neglecting regular maintenance, inspection, and repair of machinery, pressure vessels *(for e.g. negligence in equipment upkeep caused sudden fluctuations in boiler's pressure in Vedanta thermal power plant)*, pipelines, and safety systems is a major cause. Worn-out components are prone to malfunction. Some older plants may use outdated technology and machinery that is inherently less safe or less efficient compared to modern alternatives.
6. **Running Beyond Structural Limits:** Infrastructure is frequently pushed past its intended capacity. For example, during the 2017 NTPC Unchahar explosion and the 2020 Visakhapatnam leak, mechanical components failed because they were left stagnant or running continuously past their safety wear-and-tear thresholds.
7. **Inadequate Risk Assessments:** Failure to conduct thorough Hazard Identification and Risk Assessment (HIRA) studies, Process Hazard Analysis (PHA), and Safety Audits to identify all potential risks and implement appropriate control measures.
8. **Poor Siting:** Locating hazardous industries too close to densely populated residential areas (*for e.g. as seen in the Bhopal Gas Tragedy and Vizag gas leak*) significantly increases the risk to human life in case of an accident.
9. **Informal Sector Challenges:** A significant portion of India's industrial activity is in the unorganized or informal sector, which often operates outside regulatory oversight, making workers highly vulnerable to unsafe conditions.

What are the CONSEQUENCES of industrial disasters?

Human Consequences	• **Loss of Life:** The most tragic and immediate consequence is the loss of lives of workers, residents in surrounding communities, and emergency responders. • **Severe Injuries and Disabilities:** Many survivors suffer from severe injuries (burns, respiratory damage etc.) that can lead to permanent disabilities, chronic illnesses, and a significant reduction in their quality of life.
Environmental Consequences	• **Air Pollution:** Disasters involving gas leaks (e.g., Methyl Isocyanate in Bhopal, Styrene in Visakhapatnam) release highly toxic substances into the atmosphere, which can travel long distances, contaminating a wide area. • **Water Contamination:** Spills, leaks, and discharge of chemical effluents into rivers, lakes, and other water bodies contaminate aquatic ecosystems, harming marine life and making water unsafe for human consumption, agriculture, and livestock. • **Soil Contamination:** Chemical spills and deposition of hazardous substances from the air can contaminate agricultural land, making it infertile or rendering crops unsafe for consumption. This has long-term implications for local livelihoods and food security. • **Bioaccumulation:** Toxins enter the local food chain, accumulating in fish, livestock, and crops, which eventually poisons the human population consuming them far outside the immediate disaster zone. • **Biodiversity Loss and Ecosystem Damage:** Direct exposure to toxic substances can kill flora and fauna, disrupt food chains, and damage entire ecosystems. This can lead to a loss of biodiversity and ecological imbalance in affected regions.
Economic Consequences	• **Loss of Livelihoods:** The affected industrial unit might be shut down permanently or temporarily, leading to significant job losses for workers. • **Economic Disruption:** Disasters can disrupt local economies, impact supply chains, and affect investor confidence, particularly if the affected industry is a major employer or contributor to the regional economy. • **Corporate Bankruptcy and Reputational Ruin:** Brand value often plummets overnight. Legal liabilities can force stock prices to crash, leading to corporate liquidation or hostile takeovers, while executives face criminal prosecution and imprisonment for negligence. • **Massive Financial Burden on the State:** The government must bear enormous costs for emergency response, temporary shelters, long-term healthcare for survivors, environmental remediation, and compensation payments.

	• **Impact on agricultural economy:** Contamination of land and water can destroy crops and make farming unsustainable, leading to loss of income for farmers.
Social Consequences	• **Forced displacement of people:** People living in highly affected or uninhabitable areas may be forced to abandon their homes and migrate, leading to social disruption, loss of community ties, and increased pressure on recipient areas. • **Inter-Generational Effects:** Emerging research, again highlighted by studies on Bhopal survivors, indicates that industrial disasters can have multi-generational health impacts, with children born to exposed parents facing higher risks of disabilities and cancers later in life. • **The "NIMBY" (Not In My Back Yard) Effect:** Public outrage following an accident often leads to fierce community resistance against new industrial projects, forcing governments to implement much stricter zoning laws and push hazardous industries far away from urban populations.

What INITIATIVES have been taken by the government to prevent such disasters?

Factories Act, 1948	• This is the primary legislation regulating working conditions in factories, including provisions related to safety, health, and welfare of workers. It places responsibilities on factory owners to ensure a safe workplace. • Post-Bhopal (**1987 amendment**), its scope was significantly extended to cover risks from hazardous industries, mandating safety committees, safety officers, and addressing dangerous operations.
Environment (Protection) Act, 1986	• Enacted in the wake of the Bhopal disaster, this umbrella Act gives the central government wide powers to protect and improve environmental quality. • **Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989:** Notified under the EP Act, these rules detail the responsibilities of occupiers of industrial premises handling hazardous chemicals, including requirements for safety reports, on-site emergency plans, and public information. • **Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996:** These rules mandate the preparation of off-site emergency plans by district authorities for managing chemical accidents, and establish Crisis Groups at central, state, and district levels.

Public Liability Insurance Act, 1991	• This Act mandates industries handling hazardous substances to take out insurance policies. • This insurance provides immediate interim relief to persons affected by accidents occurring while handling such substances, even without proving fault.
Occupational Safety, Health and Working Conditions Code, 2020	• This is a recent consolidated code that aims to simplify and rationalize existing labor laws related to occupational safety, health, and working conditions. • It extends provisions to more establishments and emphasizes employer duties, safety committees, and regular audits.
Guidelines on Chemical Industrial Disaster Management (2007)	These comprehensive guidelines provide a framework for all stakeholders (industry, government agencies, local authorities) for prevention, preparedness, response, and mitigation of chemical industrial disasters. Key elements include: • Risk mapping of Major Accident Hazard (MAH) units. • Development of on-site and off-site emergency plans. • Regular mock drills and exercises. • Establishment of Emergency Response Centres (ERCs) and integration with other emergency services. • Emphasis on HAZOP (Hazard and Operability Study) and HAZAN (Hazard Analysis) for early hazard identification.
National Green Tribunal (NGT)	• Established in 2010, the NGT acts as a dedicated environmental court. • It holds the power to summarily shut down non-compliant factories, levy massive fines under the "Polluter Pays" principle, and adjudicate compensation payouts directly under India's Strict and Absolute Liability doctrines.

What DISASTER MANAGEMENT MEASURES should be taken to prevent such industrial disasters?

1. Strengthening Regulatory and Enforcement Mechanisms:

- Continuously review and update existing acts (Factories Act, EP Act, PLI Act) and rules (MSIHC, Chemical Accidents Rules) to incorporate latest scientific advancements, international best practices (e.g., EU's Seveso Directive), and lessons learned from past disasters.

- Significantly increase the number of factory inspectors, safety officers, and environmental auditors. Ensure they are adequately trained, equipped with modern tools, and well-remunerated to attract and retain talent.
- Impose significantly higher penalties for non-compliance, including severe fines, imprisonment, and immediate closure of non-compliant units. Expedite legal proceedings against violators to ensure deterrence.

2. Fostering a Culture of Safety and Responsibility:

- Safety education must be mandatory for all staff, including contract and daily-wage laborers. Instruction should be delivered via multi-lingual, visual, and practical formats, ensuring every worker can quickly identify chemical warning codes and correctly operate emergency shut-off valves.
- Create a non-punitive environment where workers feel safe and encouraged to report near-misses, unsafe conditions, and procedural deviations without fear of reprisal.
- Conduct frequent and realistic mock drills for both on-site and off-site scenarios, involving all stakeholders, to test the effectiveness of emergency plans and identify gaps. Learnings from drills must be incorporated.

3. Advanced Risk Assessment Tools: Utilize Artificial Intelligence (AI) and Machine Learning (ML) for predictive analytics to identify potential failure points in equipment and processes based on operational data, enabling proactive maintenance.

4. Strategic Industrial Zoning: Implement and strictly enforce policies for locating new hazardous industries away from densely populated residential areas, schools, and hospitals. Re-evaluate and, where feasible, relocate existing hazardous units that are currently located in highly populated areas.

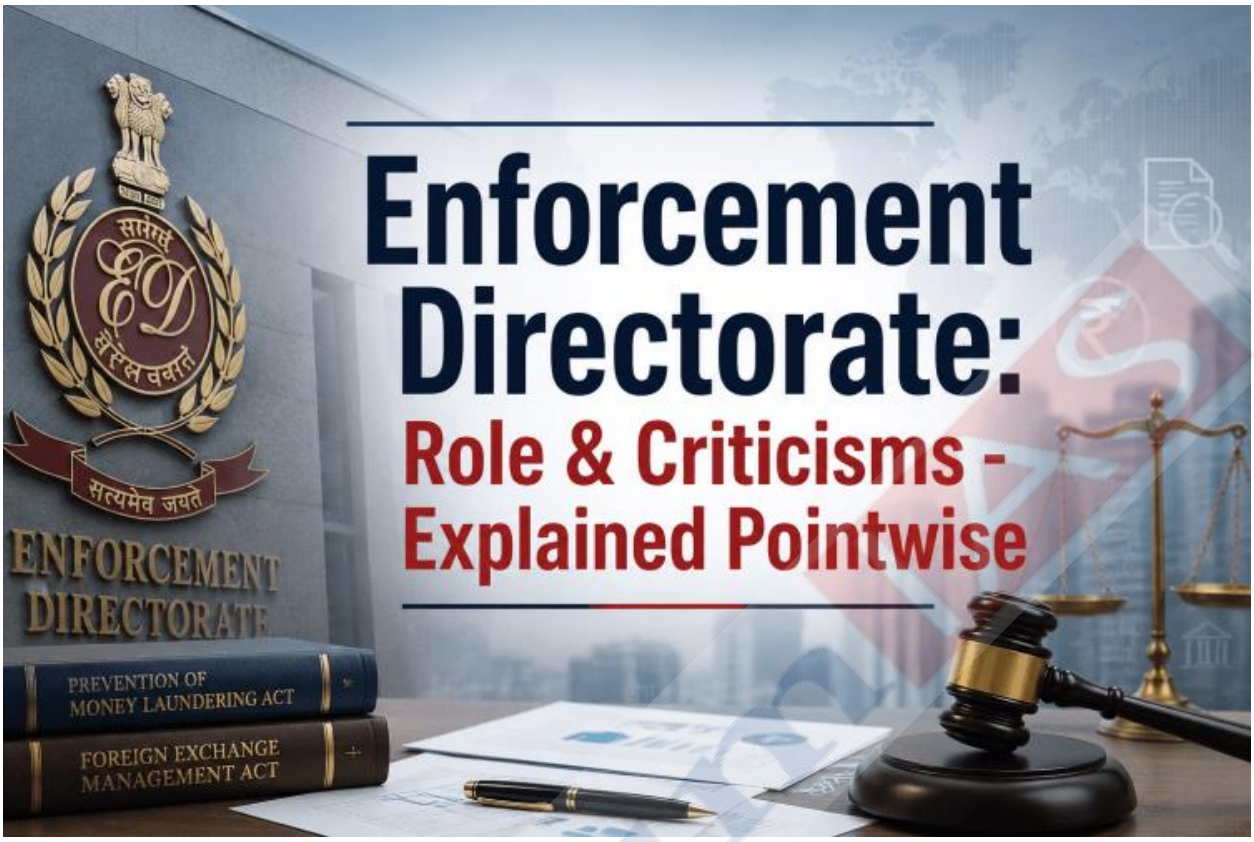
5. Adequate Resources: Ensure that emergency services (fire departments, hospitals) in industrial zones are adequately equipped and trained to handle industrial accidents, including chemical hazards.

CONCLUSION:

Industrial disasters are a threat to not only the economy of a rapidly industrializing country like India but also to its society. Stronger enforcement, modernized infrastructure, better training, and a culture of safety – especially in the informal sector – are urgently needed to prevent tragedies in the future.

Read More: Indian Express, Wikipedia, The Hindu
UPSC GS-3: Disaster Management

Enforcement Directorate: Role & Criticisms – Explained Pointwise



In a significant judgment, the Delhi High Court quashed the Enforcement Directorate's case against a media outlet and its founder, holding that the allegations failed to disclose any cognisable offence and that continuing the proceedings amounted to a gross abuse of law.
The ED is India's premier agency for investigating money laundering and foreign exchange violations. While crucial for economic security, concerns over accountability, transparency, and alleged misuse highlight the need for institutional reforms.

About the Enforcement Directorate:

- ED is a multi-disciplinary financial investigation agency mandated with investigation of offences of money laundering and violations of foreign exchange laws.
- It is a non-statutory body under the **Department of Revenue**, Ministry of Finance.
- The statutory functions of the agency include enforcement of following Acts:
    1. **The Prevention of Money Laundering Act, 2002 (PMLA):** ED has been given the responsibility to enforce the provisions of the PMLA. It conducts investigation to trace the assets derived from proceeds of crime and ensures prosecution of the offenders and confiscation of the property by the Special court.
    2. **The Foreign Exchange Management Act, 1999 (FEMA):** ED has been entrusted with the responsibility of investigating suspected violations of foreign exchange laws and regulations. Additionally, it has the authority to adjudicate cases and impose penalties on those found to have contravened these laws.

3. **The Fugitive Economic Offenders Act, 2018 (FEOA):** Under this law, the agency is mandated to seize the properties of fugitive economic offenders who have fled from India to evade arrest.
4. **Sponsoring agency under COFEPOSA:** Under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA), the ED is empowered to sponsor cases of preventive detention regarding contraventions of FEMA.

How has the ED evolved with time?

- The ED was founded as "**Enforcement Unit**" within the Department of Economic Affairs of Ministry of Finance in 1956. It was renamed as "Enforcement Directorate" in 1957.
- It originally handled Exchange Control Laws violations under the **Foreign Exchange Regulation Act, 1947 (FERA 1947)**. Under this act, the ED had the power to arrest for FERA violations, but the scope of powers was limited as the ED's domain was largely limited to the corporate world.
- The administrative control of the ED was transferred from the Department of Economic Affairs to the Department of Revenue in 1960.
- The nature of ED changed as India changed. In the **pre-liberalisation era**, the laws driving ED were "**regulation**" laws whereas **post-liberalisation**, those became "**management**" laws. For example, FERA 1973 (which replaced FERA 1947) became the Foreign Exchange Management Act, 1999 (FEMA).
- Under FEMA, 1999, ED lost its power to arrest people or take them into custody as forex violations amounted to civil offenses, compoundable after payment of a fine.
- ED's **powers increased significantly after the enactment of PMLA, 2002** because the act re-empowered ED with the powers of criminal prosecution. The 2009 and 2013 amendments widened the scope of PMLA and provided further powers to the ED.

Recent expansion of powers:

- In 2022, the Centre has amended a **2006 notification** to list 16 entities which will have to mandatorily share information with the Enforcement Directorate (ED) under **Section 66** of the PMLA. Among these are the National Investigation Agency (NIA), the Competition Commission of India (CCI), the Serious Fraud Investigation Office (SFIO), and State Police Divisions. This has further widened ED's powers.
- Again, in 2022, the **Supreme Court upheld the amendments** made to the PMLA through Finance Acts. It gives the ED virtually unchecked powers of summons, arrest, and raids, and makes bail nearly impossible while shifting the burden of proof of innocence on to the accused rather than the prosecution.

How ED is different from other policing agencies?

	Enforcement Directorate (ED)	**Traditional Police Agencies**

Primary Mandate	Enforces economic laws, specifically the **Prevention of Money Laundering Act (PMLA)**, 2002 and the **Foreign Exchange Management Act (FEMA)**, 1999.	Enforces the general criminal law of the land, primarily the **Indian Penal Code (IPC)** and other special acts (e.g. corruption, specific crimes).
Administrative Control	Part of the **Department of Revenue**, Ministry of Finance, Government of India.	State Police are under respective **State Governments**; the CBI is under the **Department of Personnel and Training (DoPT)** in the Ministry of Personnel, Public Grievances and Pensions.
Nature of Action	A "sui generis" (unique) process focusing on an **inquiry into the 'proceeds of crime'**. The goal is to trace, attach, and confiscate assets derived from a crime.	Conducts a criminal **'investigation'** into a crime itself, starting with the registration of a First Information Report (FIR).
Initiation of Case	**Cannot** register a case independently. It relies on a predicate offence being registered by other agencies (e.g., police, CBI) under a 'scheduled offence' listed in the PMLA.	Can **register a case (FIR)** independently upon receiving information about a cognizable offence. The CBI can also register cases on its own or by court order.
Key Powers	Wide powers of **attachment of assets** believed to be proceeds of crime, summons, and search and seizure.	Powers of **arrest**, search and seizure, and custodial interrogation primarily for the purpose of crime detection and prevention.
Arrest & Bail	Arrest under Section 19 of the PMLA based on "reason to believe." **Bail is highly stringent**, as Section 45 of the PMLA imposes a double condition (public prosecutor's opinion and court's satisfaction).	Arrest based on "reasonable suspicion." Bail provisions are relatively less stringent and vary depending on the nature of the offence (bailable, non-bailable).
Admissibility of Statement	A statement recorded before an ED officer is **admissible as evidence** in court.	A statement recorded by a police officer during an investigation is **not admissible** as evidence.

Focus	Focuses on **recovering the 'proceeds of crime'** to redistribute them to victims. Works on the financial trail of an offence.	Focuses on **establishing the guilt** of the accused for the criminal offence committed.

What role does the Enforcement Directorate (ED) play in India?

1. **Combating Money Laundering**: This is ED's primary role. The ED investigates and prosecutes money laundering offences, with the power to attach and confiscate properties and assets derived from criminal activity, known as the "proceeds of crime."
2. **Enforcing Foreign Exchange Laws (Under FEMA, 1999):** The ED investigates violations of foreign exchange regulations, such as illegal money transfers (hawala) and other infractions. It has the power to summon individuals, conduct surveys, and impose penalties.
3. **Targeting Fugitive Economic Offenders (Under FEOA, 2018):** The ED works to attach and confiscate the properties of economic offenders who have fled India to avoid facing legal proceedings. The ED sell or auction these seized assets to help state banks recover their lost funds.

What are the major criticisms of the Enforcement Directorate (ED)?

1. **Low Conviction Rate**: Between 2014 and 2024, only 40 convictions were secured out of 5,297 cases registered under PMLA, with a particularly low rate of 1% (2 convictions) in 193 cases filed against politicians. The Supreme Court noted this undermines the justification for the agency's sweeping powers.
2. **Political Bias & Selective Targeting**: Opposition leaders allege the ED is "weaponized" to target rivals, with 98% of political cases since 2014 filed against non-BJP leaders. Critics point to high-profile arrests of leaders like Arvind Kejriwal and Hemant Soren, contrasting with the lack of similar actions against ruling party members.
3. **Draconian Bail Conditions (Reversal of Innocence)**: The PMLA's stringent bail provisions (Section 45) impose a "reverse burden of proof," making it exceptionally difficult for accused individuals to secure bail. The Supreme Court observed that this "reverses the presumption of innocence" and effectively results in "sentencing them almost without a trial".
4. **No Access to the "FIR":** Unlike regular criminal law where an accused has a right to a copy of the Police FIR, the ED treats its equivalent document (the ECIR) as an internal, confidential file. An individual can be summoned or arrested without fully knowing the exact details or scope of the allegations against them.
5. **Immediate Asset Freezing:** The ED can provisionally freeze or attach bank accounts, properties, and business assets at the mere inquiry stage. For businesses, this sudden cash-flow strangulation often forces them into bankruptcy long before they can prove their innocence in court.
6. **Inefficiency & Resource Drain**: The agency takes years to conclude trials – only 56 trials have been completed in two decades. However, the ED defends its record by highlighting a ~95% conviction rate in completed trials and noting that it has returned nearly ₹23,000 crore to victims.
7. **Expanding jurisdiction:** The broad definition of "proceeds of crime" and "money laundering" has drawn criticism for potentially criminalising ordinary financial activity.

What Should be the Way Forward?

1. **Ease the Stringent Bail Conditions (Section 45 of PMLA):** The Supreme Court has noted that the near-automatic denial of bail effectively punishes the accused without trial. Thus, amend the law to

make bail the rule and denial an exception, except for the most serious offenders, while still allowing for strict conditions.

2. **Strengthen Pre-Attachment Safeguards:** Before attaching assets (which can cripple a business or individual), the ED should provide a detailed, reasoned order and a meaningful, time-bound opportunity for the person to be heard by an independent adjudicating authority.
3. **Insulate from Political Influence:** The ED's top officers, including the Director, should be appointed for fixed, non-extendable tenures with security of service. A collegium of senior officials, judges, and the Central Vigilance Commissioner, rather than a single political authority, should oversee key decisions.
4. **Defined Criteria for Case Selection:** The ED needs clear, objective, and public criteria for picking up cases. Setting a minimum financial threshold (e.g., cases involving frauds over ₹50 or ₹100 crores) would stop the agency from stretching its resources thin over minor municipal offenses.
5. **Focus on High-Quality Prosecution:** Instead of a high volume of cases with low conviction rates, the ED should prioritize high-quality, evidence-rich investigations on major financial conspiracies. Invest in specialized training for its legal teams to improve trial outcomes.
6. **Mandate Transparency:** The ED should routinely publish anonymized data on its website: number of searches, arrests, assets attached (by value and case), charge sheets filed, and conviction rates. It should also disclose the average time taken for trial completion.
7. **Sharing the ECIR:** There should be a legal mandate to provide a copy or a detailed summary of the Enforcement Case Information Report (ECIR) to the accused at the time of summoning or arrest. This aligns with the constitutional right to know the exact grounds of one's detention.

Conclusion: By embedding strict adherence to due process, the ED can successfully catch major economic offenders while remaining an unassailable, trusted pillar of the Indian justice system.

UPSC GS-2: Indian Polity – Constitutional & Non-Constitutional Bodies
Read More: Indian Express

India-France Relations – Significance & Challenges – Explained Pointwise

Prime Minister Narendra Modi is set to visit France to participate in the G7 Summit. This is PM's 7th official visit to France since 2014.
India and France share a longstanding strategic partnership rooted in mutual trust, encompassing defence, space, nuclear energy, maritime security, and climate cooperation. The relationship is significant for advancing India's strategic autonomy and global aspirations. However, challenges persist in trade imbalances, technology transfer, market access issues, and navigating evolving geopolitical dynamics.

What is the history of India-France Relations?

India and France have traditionally close and friendly relations.

Pre-Independence Era	• **The French East India Company (1664):** Established under King Louis XIV, the company created prominent trading posts in India, most notably at **Pondicherry (Puducherry)**, Chandernagore, Karikal, Mahé, and Yanam. • **The Anglo-French Wars:** Throughout the 18th century, the Carnatic Wars saw the French and British fight for supremacy over the Indian subcontinent. Brilliant French governors like Joseph François Dupleix formed strategic alliances with local Indian rulers to counter British expansion.

Post Independence Era	• **Establishing Ties (1947):** India and France officially established diplomatic relations immediately after India gained independence. • **The Treaty of Cession (1956/1962):** France agreed to peacefully transfer its Indian territories to the Republic of India. A de facto transfer occurred in 1954, followed by a formal Treaty of Cession signed in 1956 and ratified by the French Parliament in 1962. Pondicherry and the other pockets were integrated smoothly without military conflict. • French aircraft and helicopters like Ouragan, Mystere, Alize, Alouette, Jaguar have been part of the Indian air fleet since 1960's. • In 1984, France stepped in to supply nuclear fuel to Tarapur power plant after the US backed out citing domestic constraints. • France supported India's space programme since its inception, like setting up Sriharikota launch site and Centaure and Viking rocket technologies in the 1970s. However, the Cold War Constraints, did not let the development of a fully developed relationship.
Post Cold War Era	• **Strategic Partnership:** India and France entered into **Strategic Partnership** in 1998. The areas of defence & security cooperation, space cooperation and civil nuclear cooperation constitute the principal pillars of our Strategic Partnership. • **The 1998 Nuclear Tests**: India conducts its Pokhran-II nuclear tests. While the US, UK, and other Western powers impose harsh economic and technological sanctions, **France refuses to sanction India**, choosing instead to engage in open diplomatic dialogue. • **Special Global Strategic Partnership**: In February 2026, India and France elevated their ties to a **Special Global Strategic Partnership**. This historic upgrade expands collaboration beyond traditional defense into AI, space, and clean energy. • **Horizon 2047 Agreement:** Horizon 2047 agreement between India and France lays down the future roadmap of India-France collaboration for the next 25 years. The collaboration between India and France in emerging domains such as supercomputing, cloud computing, artificial intelligence, and quantum technologies holds significant importance for India's future.

What are the areas of cooperation between India and France?

1. **Geo-Political:** India and France have close geopolitical relations which has only strengthened in due course of time.
    - France was the first P-5 country to support Indian membership in the UNSC and the reforms of the United Nations.

- France's support was vital in India's accession to the Missile Technology Control Regime (MTCR), Wassenaar Arrangement (WA) and Australia Group (AG).
- France has got the unique honour of being the country that has been invited the highest number of times as chief guest for the Republic Day.

2. **Geo-Strategic:** France has been appreciative of the geostrategic concerns of India and has taken the following measures to bolster the geo-strategic cooperation.
   - France has offered its biggest strategic asset in the Indo-Pacific territory to India. **For Ex-** Indian Air Force planes have been deployed to Reunion Island.
   - France has also given equities in organisations such as the Indian Ocean Commission to India. France is also part of India-France-Australia Trilateral Dialogue that supports free, open and inclusive Indo-Pacific
   - France has supported India on Jammu and Kashmir and has stood with India to counter Pakistan-sponsored terrorism, and has bolstered India's capabilities against China.
3. **Defence and Security:** India and France's Relationship in the defence and security domain has increased many folds, which are mentioned below:
   - France has emerged as a key defence partner for India. It has become the second-largest defence supplier in 2017-2021. Major Military equipments imported from France include Rafale and Mirage 2000 Fighter Aircraft and Scorpene Submarines.
   - India and France have been regularly conduct joint exercises- Varuna (Naval), Garuda (Air Force) and Shakti (Army).
   - India and France have been undertaking 'joint patrolling' in the Indian Ocean Region and are striving towards maritime domain awareness in the Indian Ocean region.
   - During recent PM Modi's visit, India offered France the DRDO-developed Pinaka multi-barrel rocket launcher.
4. **Economic cooperation:** India and France share a strong economic partnership, as outlined below:
   - Bilateral trade between India and France has reached a new peak at USD 13.4 billion in 2022-23. The exports from India have crossed USD 7 billion.
   - France is the 11th largest foreign investor in India. The cumulative investment of France in India is USD 10.49 billion from April 2000 to December 2022.
   - More than 1,000 French establishments are present in India. Their total turnover is around US$ 20 billion and they employ around 300,000 persons.
5. **Energy and Climate:** India-France relationship is distinctly defined by the close cooperation in the fields of renewable energy to protect the Climate change.
   - French support played an important role in India getting an exemption from the Nuclear Suppliers Group (NSG) in 2008 to resume international cooperation in civil nuclear energy.
   - France actively supports India's entry in to the NSG.
   - India and France played a pivotal role in the establishment of International Solar Alliance.
6. **Science and Technology:** India and France share close partnership in the field of Science and Technology.
   - France's CNES and India's ISRO partnership has been strengthened with the Joint Vision for Space Cooperation in 2018.
   - India and France are collaborating on Joint Earth Observation Mission- TRISHNA, Joint Mars Mission and removal of space debris.
   - India and France are jointly constructing the world's largest nuclear park in Jaitapur, Maharashtra.
   - France is the first European country to accept the UPI payments system.

- Formalized during the 2026 AI Impact Summit, both nations are working to democratize AI resources and have established a joint Research Centre for AI in Healthcare.

7. **Diaspora:** Around 109,000 of Indians, largely originating from French enclaves of Puducherry, Karaikal, Yanam, Mahe and Chandernagore live in France. Also, a sizable number of Indian-origin population lives in the French Overseas Territories of Reunion Island (280,000), Guadeloupe (60,000), Martinique (6,000) and Saint Martin (300).
8. **Connectivity:** Both countries recently agreed to strengthen cooperation on implementing the India-Middle East-Europe Economic Corridor, first discussed during the G20 Summit in New Delhi in 2023. The plan includes an Eastern Corridor linking India to the Gulf region and a Northern Corridor connecting the Gulf region to Europe. The corridor will integrate railway networks, a ship-rail transit system, and supporting road transport routes.

What is the significance of India-France Relations?

1. **Securing the Indo-Pacific:** France is a permanent resident of the Indo-Pacific via its territories (Reunion, Polynesia), and India is the region's geographic heart. Both advocate for a **"rules-based order"** and freedom of navigation (UNCLOS) in response to growing maritime competition. India requires French support for maintaining the stability and security of the Indo-Pacific region and to counter the growing Chinese aggression. **For ex-** India-France Joint Strategic Vision for cooperation in the Indian Ocean Region in 2018.
2. **Technology and Defence Sovereignty**: France has historically served as India's primary alternative to reliance on Russian or American military hardware. From the Mirage 2000s in the 1980s to the modern Rafale fighter jets and Scorpene submarines, France provides cutting-edge technology without political strings attached. The partnership is highly significant for India's defense modernization and its push for *Atmanirbhar Bharat* (self-reliance).
3. **Strategic Autonomy:** The India-France relation is strategically autonomous in its truest sense, as it is not constrained either by the Anglo-Saxon views (in France) nor the anti-western thoughts (In India). **For ex-** France support of India after 1998 Pokhran Nuclear Test.
4. **Entry to Key Organisations:** France's support is crucial to India's entry into important organisations like the UNSC and the NSG.
5. **Global Stability:** India- France relations is crucial for checking Russia's assertiveness in Europe and China's assertiveness in Asia. This will ensure, global stability and power parity in the emerging world order.

What are the challenges in India-France Relationship?

1. **Trade Imbalances and IPR issues:** India- France economic relation is a concern for India as it suffers from trade imbalances (France exports more to India). France ranks far behind other major partners like the US, China, the UAE, or even Germany in terms of volume.. Also, India has been criticized by France for inadequate protection of intellectual property rights (IPRs) of French businesses operating in India.
2. **The "Defense-Heavy" Basket:** A substantial portion of economic engagement is restricted to government-to-government defense and aerospace procurement. Diversification into broader consumer goods, agriculture, and general manufacturing remains limited.
3. **Stalled Projects:** The India-France relations also face the challenge of non-operationalisation of the negotiated projects. **For ex-** France's offer to build reactors at Jaitapur faces delays, high costs, and legal tensions over India's Civil Liability for Nuclear Damage Act (2010). The Act requires nuclear suppliers to compensate disaster victims, which French firms view as a barrier to investment.

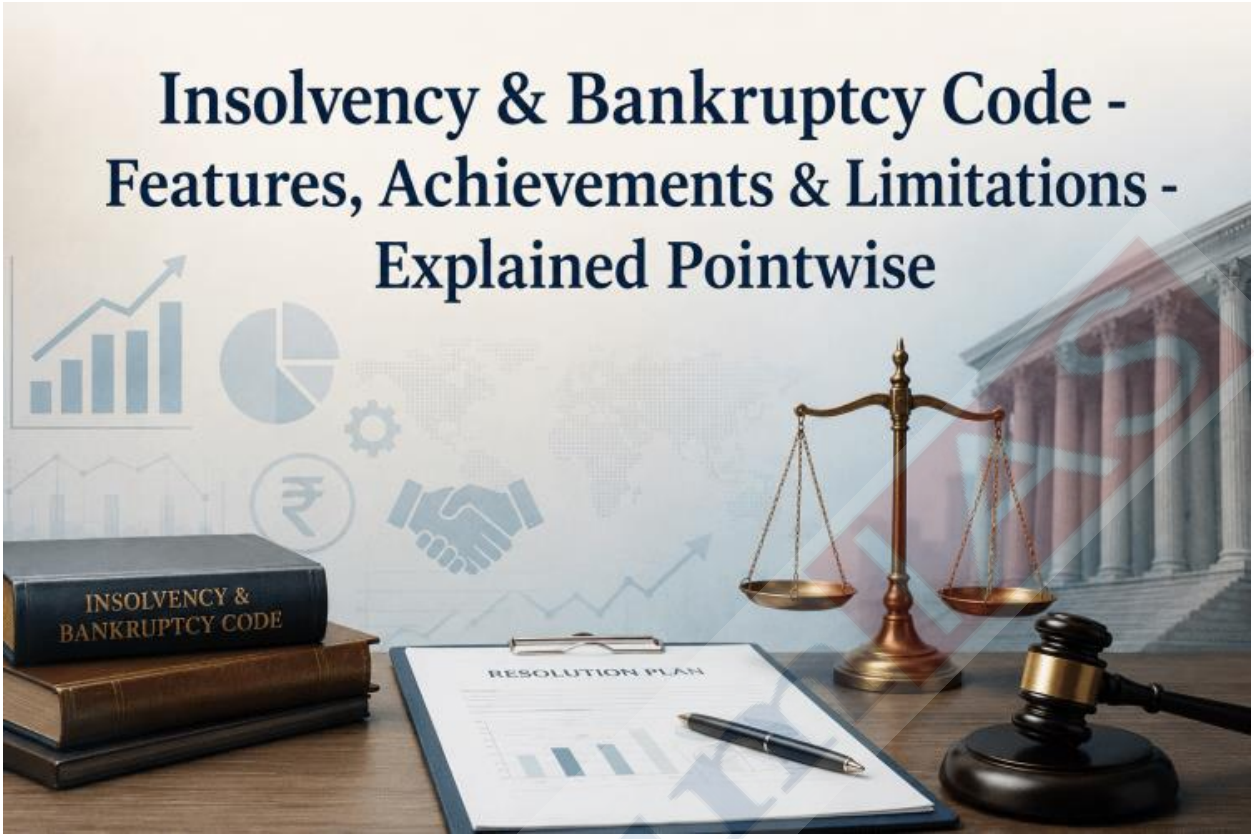
4. **Differences in geopolitical approaches:** Both nations deeply value "strategic autonomy," but this means they occasionally prioritize different threats based on geographical realities such as:
    - **Ukraine:** France actively supports Ukraine against Russia, while India maintains neutrality, abstaining from UNGA resolutions.
    - **West Asia:** Differing positions on Iran and the Israel-Palestine conflict.
    - **China:** France's economic ties with China may reduce strategic convergence with India in the Indo-Pacific.
5. **Technology Transfer Friction:** High-tech military transfers are tightly regulated by France. Agreeing on exactly how much core technology gets shared for local production—such as the co-development of high-thrust fighter jet engines with Safran—requires intense, prolonged negotiations.

What should be the Way Forward?

1. **Leveraging the India-EU FTA:** Both nations must use their political capital to help steer and conclude the broader India-European Union Free Trade Agreement negotiations. Resolving localized tariff disputes on automobiles, spirits, textiles, and carbon taxes will structurally boost bilateral trade beyond the sluggish $15 billion threshold.
2. **Implementation of Agreement on Migration and Mobility:** India and France must work jointly to increase the mobility of students, graduates, professionals and skilled workers while strengthening their efforts to combat irregular migration.
3. **Increased Trade and Investment:** The two countries must work towards increasing bilateral trade and investment with measures like setting up joint ventures, expanding trade agreements and promoting cross-border investment.
4. **Broadening the International Solar Alliance (ISA):** The ISA should move beyond institutional capacity building to actively financing and executing decentralized solar grids across Africa and the Global South. This positions the partnership as a functional bridge providing tangible climate-resilient infrastructure.
5. **Expedition on stalled projects:** A joint working group must be created to expedite the completion of the stalled projects like Jaitpur Nuclear Power Plant – Address liability concerns under India's Civil Liability for Nuclear Damage Act (2010) through a bilateral supplement or insurance mechanism to enable ground breaking after decades of delays.

Read More– The Indian Express
UPSC Syllabus- GS 2– Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Insolvency & Bankruptcy Code – Features, Achievements & Limitations – Explained Pointwise



The Insolvency and Bankruptcy Code (IBC), 2016 is India's landmark insolvency law that provides a time-bound framework for resolving corporate distress, maximizing asset value, and improving creditor recovery. To address delays and procedural bottlenecks, the government recently enacted the IBC (Amendment) Act, 2026, introducing stricter timelines, a creditor-initiated insolvency process, enhanced creditor rights, and measures to expedite resolution and liquidation proceedings.

What is the Insolvency and Bankruptcy Code (IBC)?

- The Insolvency and Bankruptcy Code (IBC), enacted in 2016, is a landmark reform that consolidated and modernized India's insolvency framework.
- Its main aim is to provide a unified, time-bound process for resolving insolvency and bankruptcy of corporates, individuals, and partnership firms, thereby improving overall financial sector health and creditor confidence.
- **Insolvency** refers to a situation where individuals or companies cannot repay back their outstanding debt obligations.
- **Bankruptcy** refers to a legal status declared by a court of competent jurisdiction for a person or entity that is insolvent i.e. unable to pay off debts.

What are the key amendments brought by the IBC (Amendment) Act, 2026?

1. **Mandatory Admission & 14-Day Timeline:** The Act replaces the discretionary "may" with a mandatory "shall" regarding the admission of applications by financial creditors. Once the existence of a default is established and the application is complete, the Adjudicating Authority (NCLT) **must** admit

the application, typically within **14 days**. Failure to do so requires the NCLT to record written reasons for the delay.

2. **Creditor-Initiated Insolvency Resolution Process (CIIRP)**: One of the most transformative introductions is the **Creditor-Initiated Insolvency Resolution Process (CIIRP).** This is an alternative, faster, out-of-court mechanism available to notified classes of financial creditors and eligible corporate debtors. The CIIRP track must be finished within a swift **150 days**. If it fails, the case automatically upgrades into a standard, formal courtroom CIRP.
3. **Codifying the "Clean Slate" Principle:** An approved resolution plan now, by statute, extinguishes all past claims against the corporate debtor and its assets that are not covered by the plan. This codifies the principle from the **Ghanshyam Mishra Case** and provides a statutory guarantee to resolution applicants that they will not face unknown future liabilities.
4. **Two-Stage Plan Approval:** To prevent implementation delays caused by disputes over fund distribution, the NCLT can now approve the **implementation of the resolution plan first** and subsequently pass a separate order approving the distribution mechanism within 30 days.
5. **CoC Oversight in Liquidation:** The Committee of Creditors (CoC) constituted during the CIRP will now also **supervise the liquidation process**.
6. **Group Insolvency & Cross-Border Frameworks (Enabling Provisions):** The Act empowers the Central Government to frame rules for the consolidated resolution of **corporate groups** (connected by 26% or more control) and for **cross-border insolvency** based on the UNCITRAL Model Law.
7. **Penalty for Frivolous Litigation (Section 64A):** To deter misuse of the process, the NCLT can impose a penalty ranging from **₹1 lakh to ₹2 crores** on any person initiating frivolous or vexatious proceedings.

What are the Key Features of the IBC?

- **"Creditor-in-Control" Model:** Before the IBC, if a company defaulted, the owners (promoters) kept managing the company while banks fought court battles to get their money back. Now under IBC, once an insolvency plea is admitted, the existing management is **suspended** & an independent **Insolvency Professional (IP)** takes over day-to-day operations. Also, all major business decisions are handed over to a **Committee of Creditors (CoC).**
- **Strict timelines:** The Corporate Insolvency Resolution Process (CIRP) must be completed within **180 days** (extendable to 330 days in special cases, including litigation). Special provisions for small companies and startups (90 days + 45 days).
- **Insolvency Professional (IP):** An individual licensed by **IBBI** (Insolvency and Bankruptcy Board of India) who manages the debtor's operations during the resolution period (called Interim Resolution Professional or Resolution Professional).
- **Insolvency and Bankruptcy Board of India (IBBI):** Regulates professionals and agencies, sets standards, and oversees proceedings.
- **The Waterfall Mechanism (Priority of Distribution)**: In case of liquidation, the IBC specifies a strict hierarchy for distributing sale proceeds. This overrides all other laws (Income Tax, Customs, etc.) except for workers' dues:

Priority Level	Claimant
1st	Insolvency resolution costs & liquidation costs.

2nd	Secured creditors (selling their security) + Workmen's dues (up to 24 months).
3rd	Employees (other than workmen) – wages for 12 months.
4th	Unsecured creditors.
5th	Government (taxes, duties, penalties – this is a major shift; earlier govt had priority).
6th	Preference (preferred) shareholders.
7th	Equity shareholders (residual owners).

- **Resolution Plans (Revival vs. Liquidation):**
  - **Resolution Applicant:** Any person (individual, company, even the existing promoter) can submit a plan to revive the company.
  - **Voting Threshold:** A resolution plan requires **66% (two-thirds)** vote of the CoC to be approved.
- **Adjudicating Authorities:**
  - **National Company Law Tribunal (NCLT)** for companies/LLPs.
  - **Debt Recovery Tribunal (DRT)** for individuals/partnerships.
- **Pre-Packaged Insolvency (for MSMEs)**: Introduced in 2021, this is a hybrid process for Micro, Small & Medium Enterprises (MSMEs):
  - The debtor and creditors negotiate a resolution plan before going to court.
  - The existing management stays in control (Debtor-in-Possession), but an IP oversees them.
  - **Time Limit:** 120 days (much faster than regular IBC).
- **Cross-border Insolvency Provisions:** The IBC contains provisions to deal with companies having assets and creditors in multiple countries, based on the **UNCITRAL Model Law**.

What are the Objectives of the IBC?

1. **Consolidation & Amendment of Insolvency Laws:** Merge and streamline multiple, outdated insolvency and bankruptcy laws under a single, comprehensive code for individuals, companies, LLPs, and partnership firms.
2. **Facilitate time-bound resolution:** Ensure fast and predictable outcomes for insolvency cases (180–330 days), minimizing value erosion and maximizing asset recovery for creditors.
3. **Maximise Value of Assets:** Prevent value depletion for stressed companies or individuals by encouraging restructuring, sale, or liquidation in a manner that realizes maximum possible returns.
4. **Promote Entrepreneurship:** By making exit easy and non-punitive, IBC encourages risk-taking, business innovation, and investment, fostering a dynamic entrepreneurial ecosystem.
5. **Protect interests of Creditors & other Stakeholders:** Structure processes to balance the interests of financial creditors, operational creditors, employees, government dues, and other stakeholders fairly.
6. **Improve Ease of Doing Business:** By offering clarity, predictability, and a speedy resolution process, IBC elevates India's reputation for contract enforcement and dispute management, making it more attractive for investment.

7. **Reduce NPAs & Boost Credit Supply:** Provide an effective mechanism for addressing bad loans and stressed assets, strengthening the financial system and allowing for more responsible credit creation.
8. **Establishment of Regulatory Mechanism:** Establish the Insolvency and Bankruptcy Board of India (IBBI) to regulate insolvency professionals and agencies, ensuring ethical, efficient, and accountable practice.

Thus, The IBC aims to **resolve** (not just liquidate) distressed entities **quickly** (330 days) to preserve **value** for **creditors**, while giving honest debtors a second chance.

Why was the Insolvency and Bankruptcy Code (IBC) introduced?

1. **Fragmented & Outdated Insolvency Laws:** Prior to IBC, insolvency and bankruptcy were governed by multiple, overlapping laws and forums, causing confusion, delays, and high costs for resolution. Lack of clarity led to conflicting legal interpretations and inefficiency in resolving business distress. On average, it took **4.3 years** to resolve an insolvency case in India, compared to just 6 to 12 months in developed economies.
2. **Prolonged Resolution Time & Value Erosion:** Average insolvency resolution in India took over 4 years, in contrast to 1–1.5 years in developed countries. Long proceedings caused value erosion of assets and discouraged genuine business restructuring.
3. **Mounting NPAs & Stressed Assets:** Banks and financial institutions suffered from rising non-performing assets (NPAs) and mounting bad debts. Ineffective recovery mechanisms left creditors with little recourse and led to growing economic risks.
4. **Poor Ease of Doing Business:** India's low ranking in the World Bank's Ease of Doing Business index was partly due to cumbersome exit processes for distressed firms. Investors and entrepreneurs were deterred by unpredictable and costly insolvency procedures. The introduction of the IBC was a major signal to global markets that India was modernizing its market infrastructure.
5. **Strengthening Credit Discipline & Market Confidence:** The absence of strong recovery laws allowed for poor credit discipline and willful defaulting, harming India's banking sector and overall business climate.
6. **Need for Modern, Unified, Creditor-friendly Framework:**
    - Global best practices demanded a unified, quick, and transparent framework that empowers creditors and ensures fair outcomes for all stakeholders.
    - Encouraging entrepreneurship, risk-taking, and a robust financial market needed time-bound exits and non-punitive resolution processes.

What are the major achievements of the Insolvency and Bankruptcy Code (IBC)?

1. **Improved Recovery Rates:** The IBC has emerged as the most successful mechanism for recovering bad or stressed assets in India, consistently outperforming older systems like Lok Adalats, Debt Recovery Tribunals (DRTs), and the SARFAESI Act. Financial creditors have realized over **₹4.32 lakh crore** through successfully approved corporate resolution plans.
2. **Strengthening Banking Sector & Asset Quality:** The code has been a driving force behind the dramatic cleanup of India's banking sector. Gross Non-Performing Assets (GNPAs) of scheduled commercial banks have declined from a peak of over 11.5% in 2018 to a multi-decadal low of approximately **2.3% in 2025**. Public sector banks have reported record combined net profits, reflecting their improved financial health.

3. **Deterrent Effect Leading to Settlements:** The credible threat of losing control of their company to creditors has prompted many defaulting promoters to settle their dues before the formal insolvency process begins. Over **30,000 cases**, involving an estimated **₹14 lakh crore** of debt, were resolved at the pre-admission stage.
4. **Prioritizing Business Revival Over Closure**: The IBC is fundamentally built to save enterprises rather than bury them. Out of all corporate cases reaching ultimate closure, **over 57% were successfully rescued** through formal resolution plans, mutual settlements, or legal withdrawals.
5. **Successful Resolutions:** As of March 2026, 1,419 companies have found new buyers and successfully emerged from the insolvency process. Of these, about 42% were companies that were defunct or had been languishing in older, ineffective forums like the Board for Industrial and Financial Reconstruction (BIFR).
6. **Boost to Investor Confidence:** The successful revival of companies has boosted investor confidence. The aggregate market valuation of resolved listed entities witnessed a remarkable increase from approximately **₹2.8 lakh crore to about ₹9 lakh crore** over five years.
7. **Legislative Progress:** Rather than remaining static, the framework has adapted. The passing of the **IBC (Amendment) Act, 2026**, structurally modernized the code by introducing a streamlined Creditor-Initiated track (CIIRP), formalizing cross-border insolvency procedures, and codifying a strict "Clean Slate" principle so new buyers aren't bogged down by past corporate crimes.
8. **Creation of a New Ecosystem:** The IBC led to the creation of an entirely new institutional ecosystem, including the Insolvency and Bankruptcy Board of India (IBBI), a body of over 3,800 licensed insolvency professionals, and information utilities, which have together built a specialized market for stressed assets.
9. **More Robust Credit Market:** IBC has made the Indian market more attractive to investors, especially in distressed asset deals, creating greater transparency and predictability.

What are the major issues facing the implementation of the IBC?

1. **Case Backlog & Delays:** The most fundamental issue is the failure to adhere to the IBC's statutory timeline of 330 days for completing the Corporate Insolvency Resolution Process (CIRP). The average resolution time has been rising, increasing to **744 days in FY26** from 713 days the previous year. Nearly **78% of ongoing corporate insolvency cases** have crossed the 270-day threshold without reaching a resolution.
2. **NCLT Infrastructure and Capacity Crunch**: The National Company Law Tribunal (NCLT), the adjudicating authority for corporate insolvency, is severely overburdened. As of late 2025, the NCLT was functioning with only **55 members against a sanctioned strength of 63**, and nearly **24 of its 30 benches were operating on a half-day basis**. This has led to a massive backlog, with around **7,000 cases pending** at the admission stage alone.
3. **Declining Recovery Rates:** The effectiveness of the IBC is ultimately measured by the recovery for creditors, and this metric has shown a worrying trend. Recoveries against admitted claims fell sharply to just **23% in FY26, down from 46% in FY25**. This means creditors, on average, are getting back less than a quarter of what they are owed.
4. **Low Recovery for Certain Assets:** Although average recovery improved, some sectors and cases deliver lower-than-expected recoveries, especially where asset quality is poor or liquidation proceeds are limited for e.g. Agricultural and service-based enterprises often face distinct liquidation challenges.
5. **Structural Issues in Credit Markets:**
    - Banks exhibit risk aversion, preferring secured over unsecured lending, and delay initiating insolvency to maximize loan lifetimes, reducing early resolution incentives.

- Non-Banking Financial Companies (NBFCs) and informal creditors remain less integrated into the insolvency framework.

6. **The MSME Pre-Pack Failure:** The **Pre-packaged Insolvency Resolution Process (PPIRP)**, created to give fast-track, out-of-court relief to small micro-enterprises, has seen dismal traction. Over multiple years, fewer than 20 applications total have been admitted nationwide.
7. **Conflicts with Other Laws**: The IBC was designed as a special statute with an overriding effect, but in practice, it frequently clashes with other laws, creating significant legal uncertainty . The most prominent conflict is with the **Prevention of Money Laundering Act (PMLA)** , under which enforcement agencies attach the assets of a corporate debtor. Other conflicts with the **Income Tax Act, Customs Act, and SEBI regulations** further complicate the process.
8. **Delay in Resolution Plan Approvals:** Resolution plans sometimes face resistance, litigation, or withdrawal, causing significant delays and uncertainty for creditors and employees.
9. **Impact on MSMEs & Startups:** The insolvency process can be costly and intimidating for small and medium enterprises and startups, which may opt for informal settlements or closure.
10. **Incomplete Creditor Participation:** Non-financial creditors often feel underrepresented or sidelined in decision-making by the Committee of Creditors (CoC), impacting consensus and fair resolutions.

What should be the Way Forward?

1. **Strengthen Judicial & Institutional Capacity:**
   - Expand the number of dedicated NCLT benches and National Company Law Appellate Tribunal (NCLAT) members to reduce case backlog and expedite resolution.
   - Enhance training for judges, insolvency professionals, and related authorities to handle complex insolvency cases efficiently.
2. **Simplify Legal & Procedural Framework:**
   - Streamline multiple legal provisions and reduce overlaps with sector-specific laws to minimize litigation and conflicting appeals.
   - Introduce fast-track insolvency resolution mechanisms for MSMEs and startups with simplified procedures.
3. **Improve Credit Participation & Transparency:**
   - Ensure fair representation and participation of operational creditors and minority stakeholders in the Committee of Creditors (CoC).
   - Promote transparency in resolution processes and encourage stakeholder consultations to build trust and consensus.
4. **Enhance Awareness & Capacity Building:**
   - Launch nationwide awareness campaigns for debtors, creditors, and businesses about the benefits and processes of IBC.
   - Increase the pool of qualified insolvency professionals and upgrade their skill sets through continuous professional development programs.
5. **Foster Early Insolvency Detection & Resolution:**
   - Encourage early identification of financial distress through improved credit monitoring systems.
   - Facilitate pre-insolvency frameworks and corporate debt restructuring schemes to prevent insolvency where possible.
6. **Leverage Technology for Efficiency:**
   - Establish a single unified platform – **Central Digital Insolvency Dashboard** – to eliminate slow physical paperwork and tracking errors.

- Strengthen information utilities and digital platforms for collecting and authenticating financial data.
- Implement technology-enabled case management and monitoring systems to ensure transparency and real-time updates.

Conclusion:
IBC is a crucial piece of economic legislation that has modernized India's bankruptcy laws, providing a much-needed framework for resolving financial distress and promoting a more robust and transparent credit market.

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