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7 PM COMPILATION

1st and 2nd Week July, 2025

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- ❖ 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
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Secularism in India – Explained Pointwise

There is an ongoing debate in our country about whether to remove the words 'Secular' & 'Socialist' from the Preamble or not. These words were added in an undemocratic manner by 42nd Constitutional Amendment Act, 1976, during Emergency when most of the Opposition leaders were jailed or detained. However, others argue that secularism was already writ into the Constitution & it was only made explicit by adding it into the Preamble. In this context, it's important to discuss the significance & threats to secularism in India & how India secularism is different from western secularism.

What is SECULARISM?

- "Secular" means being "separate" from religion, or having no religious basis.
- **Secularism** is the principle of **separating religion from the state**, ensuring that **no religion is given preferential treatment** by the government, and all citizens are treated equally regardless of their faith.
- Secularism is based on principles like:
    - **Separation of State and Religion:** It means that the government should not have an official religion, nor should it interfere in religious matters. Conversely, religious institutions should not interfere in the functioning of the state.
    - **Freedom of Religion and Belief (Freedom of Conscience):** Secularism guarantees individuals the right to profess, practice, and propagate any religion of their choice, or to have no religion at all.
    - **Equality Before the Law:** All citizens, regardless of their religious beliefs or lack thereof, are equal before the law.
    - **State Neutrality:** The state should maintain neutrality towards all religions. It should not favor or disfavor any particular religion.
    - **Rationality and Public Reason:** Decisions in the public sphere, especially those related to governance, law, and policy, should be based on rational arguments, scientific evidence, and universal ethical principles, rather than on religious texts or beliefs.
    - **Protection of Minority Rights:** Secularism is often seen as a crucial safeguard for religious minorities, ensuring they are not discriminated against or oppressed by a religious majority.

What are the CONSTITUTIONAL PROVISIONS related to Secularism in Indian Constitution?

- **Preamble:** 42nd Constitutional Amendment Act, 1976 added the words **'Socialist'** & **'Secularism'** to the Preamble. The Janta government reversed most of the changes through 44th Constitutional Amendment Act, 1978, but the Preamble was left untouched.
- **Article 14:** Grants equality before law and equal protection of the laws to all.
- **Article 15:** Enlarges the concept of secularism to the widest possible extent by prohibiting discrimination on grounds of religion, race, caste, sex or place of birth.
- **Article 16 (1):** Guarantees equality of opportunity to all citizens in matters of public employment and reiterates that there would be no discrimination on the basis of religion, race, caste, sex, descent, place of birth and residence.
- **Article 25:** Provides **'Freedom of Conscience'**, that is, all persons are equally entitled to freedom of conscience and the right to freely profess, practice and propagate religion.
- **Article 26:** Every religious group or individual has the right to establish and maintain institutions for religious and charitable purposes and to manage its own affairs in matters of religion.

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- **Article 27:** State shall not compel any citizen to pay any taxes for the promotion or maintenance of any particular religion or religious institution.
- **Article 28:** Allows educational institutions maintained by different religious groups to impart religious instruction.
- **Article 29 & 30:** Provide cultural and educational rights to minorities.
- **Article 51A:** Obliges all the citizens to promote harmony and the spirit of common brotherhood and to value and preserve the rich heritage of our composite culture.
- **Keshvananda Bharati Case (1973) & SR Bommai Case (1994):** SC Bench held that secularism is the **basic feature** of Indian Constitution.

What is the SIGNIFICANCE of Secularism?

1. Protection of Freedom of Conscience and Religion: Secularism ensures that individuals have the fundamental right to choose, practice, or change their religion, or to have no religion at all, without state interference or coercion. This freedom is central to human dignity and liberty.

2. Democracy and fairness: In a secular democracy all citizens are equal. No religious or political affiliation gives advantages or disadvantages and religious believers are citizens with the same rights and obligations as anyone else.

3. Equal access to public services: Secularism ensures that citizens should have equal access to all public services such as hospitals, schools, and local authorities.

4. Promotes Social Cohesion: In religiously diverse societies, secularism helps manage potential conflicts between different religious groups by ensuring that no single religion dominates or is discriminated against. Thus, secularism helps in preventing communal tensions & violence.

5. Protects Human Rights: It guarantees freedom of conscience, thought, and belief, which are fundamental human rights.

6. Fosters Equality and Justice: By separating religion from state, it ensures that laws and policies are applied equally to all citizens, preventing discrimination based on religious affiliation.

7. Unity in Diversity: It allows for the celebration of diverse cultural and religious heritage while fostering a sense of shared national identity and unity.

What is the INDIAN CONCEPT of Secularism?

- The Indian concept of secularism is promoted by personalities like Vivekananda and Mahatma Gandhi is called **'Positive Secularism'** which reflect ethos of Indian culture.
- The term 'secularism' is akin to the Vedic concept of **'Dharma Nirapekshata'** that is indifference of state to religion.
- Indian philosophy of secularism is related to **'Sarva Dharma Sambhava' (Equal Respect for All Religions)**. Unlike the Western model's strict separation, the Indian model is characterized by a more **"positive" or "accommodative" secularism**. The state does not maintain a complete "wall of separation" but rather treats all religions with equal respect and seeks to promote harmony among them.
- **Principled Distance and Intervention:** The Indian state is not entirely detached from religion. It can and does intervene in religious affairs to ensure equality, social reform *(e.g. abolishing untouchability, criminalizing Sati, Ban on Triple Talaq & Nikah Halala)*, and protect the rights of individuals within

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religious communities *(e.g. personal laws)*. This is a unique feature aimed at achieving both inter-religious (equality between different religions) and intra-religious (equality within a religion, *e.g. caste discrimination*) equality.

- Indian secularism is not an end in itself but a means to address religious plurality and sought to achieve peaceful coexistence of different religions.

Secularism: Indian vs Western concept:

INDIAN SECULARISM	WESTERN SECULARISM
In India, the religion and state are not mutually exclusive and are separated by a permeable wall.	In the west, the religion and state are mutually exclusive and are separated by an impermeable wall.
Origin: The ancient Vedic period. It is based on religious pluralism promoting **'Dharma Nirapekshata.'**	**Origin:** During European Renaissance in response to rampant corruption in the Church and unwarranted interference in state affairs during the Dark Ages.
Application: Largely in a multi-religious and multi-ethnic society.	**Application:** Largely in a society with a single religion characterized by homogeneity

What are the THREATS to Secularism in India?

1. Politicization of Religion: Political parties and leaders often exploit religious sentiments, symbols, and identities for electoral gains, leading to communal polarization. This **"vote bank politics"** can exacerbate divisions between communities and undermine the state's neutrality.

2.Communal Violence: Recurring incidents of communal riots and violence across various parts of the country are a stark manifestation of the failure to uphold secular principles. These incidents deepen mistrust between communities and create a climate of fear.

3. Hate Speech and Misinformation: The proliferation of hate speech, often spread through social media, targets specific religious communities, fostering animosity and creating a fertile ground for communal tensions. Misinformation and fake news further fuel these divisions.

4. Rise of Religious Majoritarianism/Fundamentalism: The assertion of a dominant religious identity and attempts to equate national identity with a particular religion pose a direct challenge to the pluralistic and inclusive nature of Indian secularism. This can lead to marginalization and discrimination against minority groups.

5. Allegations of State Bias/Partiality: While Indian secularism allows for state intervention in religious affairs, there are often accusations of selective intervention or preferential treatment towards certain religious groups, undermining the principle of "equal respect." For example, the government's control over Hindu temples vs. autonomy of other religious institutions, or perceived "minority appeasement."

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6. Lack of Uniform Civil Code (UCC): The absence of a UCC, which would provide uniform civil laws for all citizens irrespective of religion, is seen by some as a challenge to equality. Opponents, however, view it as an infringement on religious personal laws and a threat to minority cultural autonomy. The debate around UCC highlights the tension between individual rights and community rights in the Indian secular model.

7. Growing Intolerance and Radicalization: There's a visible rise in intolerance towards dissenting views, inter-faith relationships, and practices perceived as "other." Instances of radicalization within different religious groups, fueled by extremist ideologies, pose a threat to social harmony e.g. incidents of cow vigilantism, 'love jihad' campaigns etc.

What are the lessons that Western countries can learn from Indian Secularism?

1. Indian secularism promotes Unity in diversity over Unity in uniformity of west. Thus, advocates a peaceful co-existence while western model can lead to religious stereotyping leading to discrimination and a divided society.

2. In India, State doesn't owe any loyalty to any particular religion. This gives equal freedom to all religions while providing equal protects all religions.

3. Indian secularism recognizes both individual and community religious rights while west only recognizes individual rights.

4. Indian model prefers **Principled distance** (State treat every religion with equal respect) to **Equidistance** in west. Thus, Indian government can financially support, regulate and administers the religious institutions like Wakf council (Islam), historic Hindu temples, Buddhist monasteries, etc.

5. Indian Secularism provides space for religious symbols like kirpan, hijab etc unlike Western system which completely prohibits (France) wearing these in public.

6. The Indian model allows scope of education through religious denominations, especially to start and maintain schools and impart religious education therein.

7. Recognition of minority rights (articles 29, 30) which also enjoys state support in terms of special grants.

CONCLUSION:
Secularism is a theme that permeates through the Constitution via several provisions. Secularism is not just a word in the Preamble, it is an article of faith in the way nation defines itself & holds itself together. Thus, whether it is removed from the Preamble or not, it remains fundamental for having a pluralist, rights-respecting & inclusive democracy.

Read More: Indian Express, Wikipedia
UPSC Syllabus GS-1: Society

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 lethal accident happened in the pharma unit of Sigachi Industries in Hyderabad that led to the death of 36 workers there. In fact, just yesterday 8 workers were killed in Tamil Nadu at a firework manufacturing unit in Virudhunagar district. Similarly, last year also a major accident happened in the pharma unit in Anakapalli near Vizag.

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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.

Some important 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)**
Jaipur IOC Depot Fire (2009)	• **Cause:** Leak of petrol vapour at IOC oil terminal. • Raised questions on oil depot safety near urban areas.
Vizag Gas Leak (2020)	• **Cause:** Styrene gas leak at LG Polymers chemical plant.
Neyveli Lignite Plant Explosion (2020)	• **Cause:** Boiler explosion

What are the CAUSES of industrial disasters in India?

1. Inadequate Inspections: 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.

2. 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.

3. 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.

4. Equipment Failure and Maintenance Issues: Neglecting regular maintenance, inspection, and repair of machinery, pressure vessels (like spray dryers mentioned in the Sigachi Industries blast), 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.

5. 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.

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6. 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.

7. 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. • **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. • **Impact on agricultural economy:** Contamination of land and water can destroy crops and make farming unsustainable, leading to loss of income for farmers.

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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.

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

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

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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 must be a core business value, not just a compliance requirement. Senior management must visibly commit to and invest in safety.
- 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. The Bhopal Gas Tragedy led to a rethinking on industrial safety, this blast in Telangana should do the same by fixing accountability & strengthening the regulatory framework in our country.

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

QUAD Grouping- Significance and Challenges- Explained Pointwise

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The Quad, comprising of **India, USA, Japan & Australia**, has recently launched an initiative to secure supply chains of critical minerals. This initiative is basically launched to counter the dominance of China over these minerals which are vital to new technologies.

What is the Quad Grouping? What is the History of its formation and the objectives of the grouping?

Quadrilateral Security Dialogue (QSD) or Quad: It is an informal strategic forum among like-minded democracies across the Indian and the Pacific Ocean, which is aimed to ensure and support a 'free, open and prosperous' Indo-Pacific region. It comprises of the USA, India, Japan, and Australia.

History of Quad:

Quad 1.0 (Origin of Quad)	
2004	The grouping traces its genesis to 2004, when the four countries, came together to coordinate relief operations in the aftermath of the tsunami.
2007	The idea of Quad was initiated in 2007 by the Japanese Prime Minister, Shinzo Abe. But it was dropped with the withdrawal of Australia, due to the political pressure from the Chinese government and in the wake of the growing conflict between the US and China in the Asia-Pacific region.
Quad 2.0 (Revival of Quad)	
2012	The Japanese PM emphasized the idea of Asia's 'Democratic Security Diamond' comprising the US, Japan, India, and Australia.
2017	The resurgence of the Quad began in 2017, coinciding with changing geopolitical dynamics and increasing assertiveness from China in the South China Sea and along its borders with India.
2021	The first formal summit of the Quad began in 2021. The Official declaration was laid out in March 2021. The declaration states that the Quad aims to create a region that is free, open, inclusive, healthy, anchored by democratic values, and unconstrained by coercion.

What are the some of the important outcomes of the Quad Summits?

Maritime Security	**1. MAITRI maritime initiative-** It is a new regional maritime initiative for training the Quad Partners to monitor and secure their waters, enforce their laws and deter unlawful behaviour. The inaugural symposium will be hosted by India in 2025.

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	2. Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA)- The Quad will expand this partnership to enhance regional capabilities against illicit maritime activities through improved training and resources. **3. Quad Coast Guard Cooperation-** This initiative seeks to improve interoperability among coast guard forces of member nations. Also, a Quad-at-Sea Ship Observer Mission has been scheduled for 2025.
Humanitarian Assistance and Disaster Relief	**1. Indo-Pacific Logistics Network Pilot-** A joint airlift capability will be developed to enhance the efficiency of humanitarian assistance and disaster response operations in the Indo-Pacific region. **2. Aid and Assistance for Cyclone Yagi-** $4 million in humanitarian assistance has been announced for Vietnam following Typhoon Yagi.
Health Initiatives	**1. Quad Cancer Moonshot Initiative-** This initiative aims to combat cervical cancer by promoting increased HPV vaccinations, expanding access to screenings, and enhancing treatment options across the Indo-Pacific region.
Education and Research	**1. Quad Scholarships-** India has announced a new initiative offering fifty scholarships worth $500,000 for students from the Indo-Pacific to pursue education in various fields. **2. Quad BioExplore Initiative-** This Quad initiative will focus on joint research of utilizing AI for agricultural advancements across member countries.
Infrastructure and Connectivity	**1. Centre for Cable Connectivity and Resilience-** This centre will focus on developing and managing undersea cable networks critical for global data traffic, enhancing regional digital infrastructure. **2. Quality Infrastructure Development-** The Quad is committed to improving connectivity through sustainable infrastructure projects, including training initiatives for telecommunications readiness in South Pacific nations.
Climate Change and Clean Energy	**1. Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP)-** The Q-CHAMP initiative aims to enhance resilience against climate impacts across the region.

What is the Significance of the Quad Grouping?

1. Strategic Counterbalance to China: The Quad serves as a counterbalance to China's growing influence and assertiveness in the Indo-Pacific. This cooperation aims to uphold a 'free and open Indo-Pacific', which is critical for maintaining regional stability and security.
For ex- The Quad's statements and joint declarations often emphasize support for ASEAN centrality, UNCLOS

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(United Nations Convention on the Law of the Sea), and peaceful resolution of disputes like the South China Sea Dispute.

2. Maritime Security: The grouping aims to enhance maritime security through joint exercises and coordinated responses to potential threats. **For ex-** The creation of Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA), conduction of Malabar exercise on an annual basis which aim to secure rule based order in the Indo-Pacific region.

3. Economic Cooperation: The Quad countries collaborate on economic issues, which includes infrastructure development and economic resilience in the Indo-Pacific. **For ex-** Establishment of the Quad Infrastructure Coordination Group to identify, design, and fund infrastructure projects in the region, and to provide alternatives to China's Belt and Road Initiative.

4. Technology and Supply Chain Resilience: The Quad grouping aims to create more resilient supply chains, particularly for critical technologies, components, and minerals. The group aims to reduce its reliance on China which has almost established a monopoly over processing & refining of critical minerals. This over-reliance on China exposes the industries in countries like India to economic coercion, price manipulation & supply chain disruption, which harms their economic & national security. **For ex-** Launch of initiatives like the semiconductor supply chain Initiative, Quad Partnership for cable connectivity and resilience to secure the critical supply chains of materials and technologies.

5. Public Goods provisions: The grouping has evolved to address broader issues beyond security, which includes health security. **For ex-** Launch of initiatives like the Quad Vaccine Partnership and Quad Cancer moonshot initiatives which aims to secure common public goods like vaccines.

6. Humanitarian Assistance and Disaster Relief (HADR): The HADR operations of the Quad group aims to provide disaster relief to the countries of the Indo-Pacific. **For ex-** Indo-Pacific Logistics Network Pilot and aids during the times of devastating cyclones like Cyclone Yagi.

What is the Significance of the Quad Grouping for India?

1. Strengthening of India's Global Standing: India's active role in the Quad has positioned it as a key player in the Indo-Pacific. It has enhanced its influence in international forums and with other major powers. It has also helped India to become the **'Voice of the Global South'**.

2. Support for India's vision of Free and Open Indo-Pacific: India's 'Act East' policy and its Indo-Pacific Oceans Initiative (IPOI) find resonance in the Quad's commitment of promoting regional stability and prosperity in the Indian Ocean region. This enables India to pursue its strategic interests in Southeast Asia and beyond.

3. Strategic Counterbalance to China: The Quad's initiatives on infrastructure development and alternative financing provides India with options to effectively counter Chinese investments under the Belt and Road Initiative (BRI).

4. Access to Advanced Technologies: The Quad's focus on creating resilient supply chains for semiconductors and rare earth elements is beneficial for India, as it seeks to boost its own tech industry and reduce dependency on imports.

5. Collaboration on Health and Vaccine Distribution: The Quad Vaccine Partnership, which aims to expand vaccine manufacturing in India and distribute vaccines across the Indo-Pacific, reinforces India's position as the **'pharmacy of the world.'**

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What are the Challenges faced by the Quad grouping?

1. Perception of Anti-China Alignment: The grouping is often perceived as an 'anti-China alliance'. China has criticized the grouping as a 'Asian-NATO' and accused it of sowing discord in the region.

2. Divergent Strategic Interests Among Members: The Quad countries have different strategic priorities and threat   perceptions.
For ex- Even though the U.S., Japan, and Australia expressed support for India during the 2020 Galwan Valley clashes between India and China, their direct involvement was limited. This reflects divergent levels of strategic commitment.

3. Lack of Institutionalization: The Quad remains an informal grouping without a formal secretariat or institutional framework. This limits its ability to execute long-term strategic projects or maintain consistent policies.

4. Economic Dependencies on China: All Quad members, particularly Australia, Japan, and India, have significant economic ties with China. This economic interdependence often constraints their ability to fully align   on   anti-China   measures.
For ex- Australia's experience of severe trade disruptions in 2020 after China's imposition of tariffs and trade restrictions in response to Australia's call for an independent investigation into the origins of COVID-19. Recently also, China has imposed embargo on exports of rare earth magnets & critical minerals in response to US's administration's reciprocal tariffs. These mineral are critical component of various cutting-edge hardware, ranging from semi-conductors to electric vehicles to fighter jets.

5. Lack of Consensus on Security Issues: India's traditional wariness of formal military alliances and preference for strategic autonomy, impedes the further deepening of cooperation on security issues.

6. Challenges in expansion of membership: Expansion of the Quad grouping to include other like-minded countries like South Korea, Vietnam, or New Zealand, poses challenges such as the risks of dilution of the group's cohesion and focus.

7. ASEAN concerns: Some ASEAN members, like Indonesia and Malaysia, have expressed concerns that the Quad could increase regional polarization. Quad poses a threat to ASEAN's role as the primary platform for regional dialogue and cooperation in the Indo-Pacific.

What should be the Way Forward?

1. Strengthening Institutionalization: The Quad should consider establishing a more formal institutional framework, such as a secretariat or regularized meetings at multiple levels (e.g., working groups, ministerial, and leaders' summits).

2. Enhancing Military and Security Cooperation: The Malabar naval exercise should be expanded to include more complex joint operations, such as anti-submarine warfare and amphibious operations.

3. Engaging with ASEAN and Other Regional Partners: Initiating a Quad-ASEAN dialogue could help align efforts on issues like maritime security, infrastructure development, and economic resilience.

4. Establishment of Quad Economic framework: A Quad economic framework must be established to include initiatives for digital trade, investment in high-tech industries, and collaboration on setting international standards for emerging technologies.

5. Expansion of membership for better collaboration: A 'Quad Plus' dialogue can be launched on infrastructure development which could include countries like South Korea, Vietnam, and Singapore.

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CONCLUSION:

The Quad is significant for Indo-Pacific security, economic resilience, and the promotion of democratic values. However, it faces challenges of cohesion, delivery, regional skepticism, and resource constraints. Its future effectiveness depends on institutionalizing cooperation, focusing on tangible regional benefits, engaging Southeast Asian partners, and maintaining unity amid diverse national interests.

Read More- The Indian Express
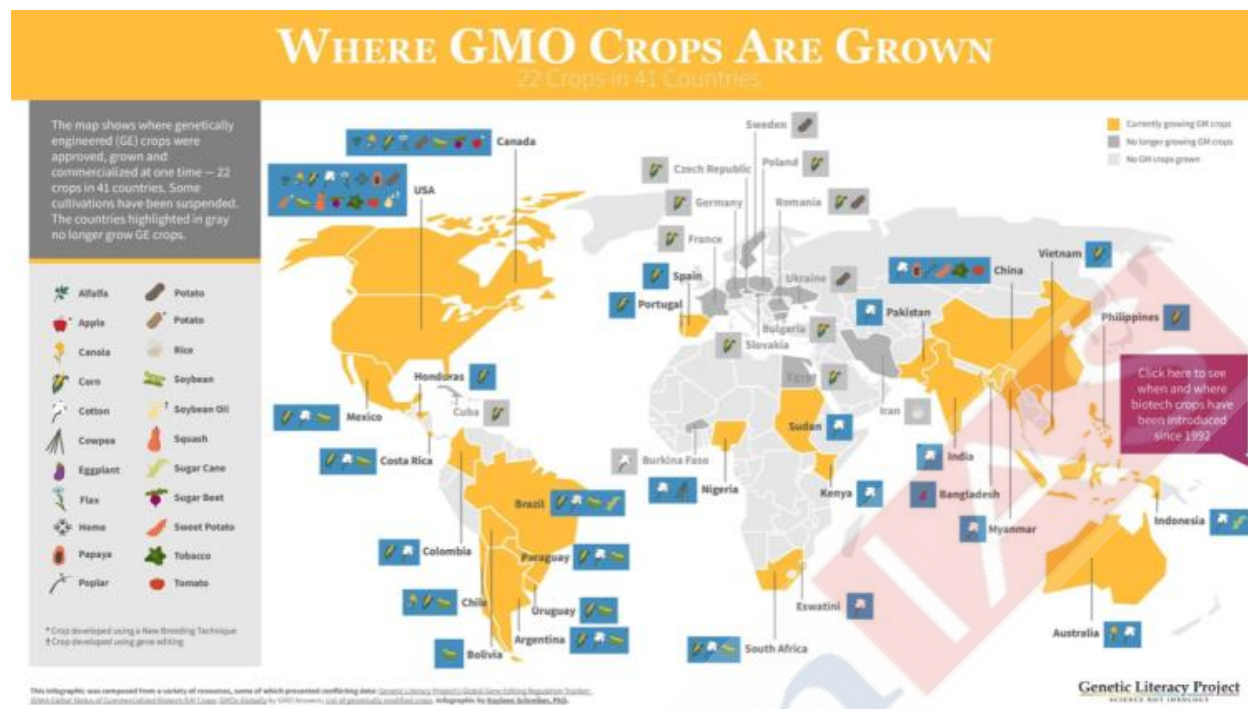**UPSC Syllabus- GS Paper 2- International Organisations- Their structure and Mandate**

GM Crops in India: Issues and challenges – Explained Pointwise

Right now, India is negotiating a trade deal with the USA in which the Trump administration is putting pressure on India to open its market to the GM crops like Soyabean & Maize produced by USA. This makes it important to discuss about the GM crops – the arguments in favour as well against their introduction especially in India and what should be the way forward.

What are GM crops?

- GM crops are plants that have had their DNA altered using genetic engineering techniques. This process involves inserting one or more genes from a different species into the plant's genome to confer certain advantageous traits that aren't naturally present in the species e.g. **Bt Cotton**, which is widely grown in several countries, including India.

- Unlike what plant breeders did traditionally in cross breeding by combining genes from same or closely related plant species, GM technology does not restrict trait selection. Genes from any living organism, be it plants, or animals, is used to arrive at the desired traits.

- GM crops are developed to improve crop yield, enhance nutritional value, reduce the use of chemical pesticides, and increase resistance to environmental stressors like drought or frost. However, the use of GMOs also raises concerns related to potential health risks, environmental impact, and ethical considerations.

About the GM crops permitted in India and in other countries:

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Source: Genetic literacy project

GM crops in India:

- **Bt Cotton:** In India, the major transgenic crop that has been commercialized is Bt cotton. Bt cotton is genetically modified cotton that expresses a toxin derived from the bacterium Bacillus thuringiensis, which provides resistance against destructive pests such as the bollworm. Bt cotton remains the only GM crop approved for cultivation in India till date. The area under Bt. Cotton cultivation has increased from **less than 1%** in 2002-03 to almost **94%** in 2019-20.

- **GM mustard:** In addition, India is also considering the commercial release of genetically modified mustard known as Dhara Mustard Hybrid (DMH -11). This GM mustard has genes from a soil bacterium that enhance hybridization, potentially leading to a yield increase of 25-30%. As of now, this crop has received approval from the GEAC but is yet to receive final clearance from the Ministry of Environment.

Other transgenic crops which are under developmental phases in India:

- **GE Banana:** The National Agri-Food Biotechnology Institute (NABI) in Mohali is developing fungus-resistant varieties and exploring the fortification of bananas with iron. They are also working on increasing the amount of provitamin A in the fruit.

- **GE Potato:** The Central Potato Research Institute (CPRI) in Shimla has received permission to conduct research on the GE potato hybrid KJ66, derived from the wild Mexican potato, aimed at combating the late blight pathogen **Phytophthora infestans**.

- **GE Maize:** Rallis India Limited has received conditional approval from GEAC to conduct trials on GE maize, aimed at improving its resistance to the moth **Spodoptera frugiperda** and tolerance to the herbicide glyphosate.

- **GE Rubber:** The Rubber Research Institute in Kottayam has been granted permission for trials of two GE rubber lines expressing an 'osmotin' gene, which is expected to confer resilience to the plants under a range of adverse conditions.

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Transgenic crops in other countries:

- **Soybean:** In the United States, one of the first and most widespread transgenic crops is the Roundup Ready soybean. These soybeans are engineered to be resistant to glyphosate, the active ingredient in the herbicide Roundup.
- **Bt Maize:** Another common transgenic crop is Bt maize (or corn), which like Bt cotton, contains a gene from the **Bacillus thuringiensis** bacterium. This allows the maize to produce a protein that is toxic to certain types of pests, notably the European corn borer.
- **Golden rice:** In some parts of Asia, a genetically modified version of rice known as Golden Rice has been developed. This rice is modified to produce **beta-carotene**, a precursor of vitamin A, in the edible parts of the rice plant. This is intended to combat vitamin A deficiency, a significant public health problem in many developing countries.

How India is regulating transgenic crops?

Mandate of Ministries/Departments	
Ministry of Environment, Forest and Climate Change	• Primarily responsible for conservation and protection of environment, ensuring environmental and human health safety before release of GMOs / LMOs. • Nodal agency for implementing Rules, 1989 and the Cartagena Protocol on Biosafety
Department of Biotechnology (Ministry of Science & Technology)	• Nodal department for promoting biotechnology programs • Provides scientific support in implementation of biosafety regulations • Provide services in areas of research, infrastructure, generation of human resource
Ministry of Agriculture	• Policies aimed at agriculture growth. • Indian Council of Agricultural Research (ICAR) responsible for monitoring agronomic benefits of GM technology. • Monitoring post-release performance of GM crops.
Ministry of Health and Family Welfare	• Policies aimed at protecting and monitoring human health. • Food Safety and Standards Authority of India responsible for regulating genetically engineered foods.
Ministry of Commerce and Industries	• Enhance trade with other countries through export/import policies. • Nodal agency for implementing DGFT notification on GMOs
Central Board of Excise and Customs, Department of Revenue, Ministry of Finance	• Enforcement of regulation pertaining to transboundary movement of GMOs/LMOs at point of entry

Source: The Hindu

India has a well-established regulatory framework in place to control and supervise the introduction and cultivation of GM crops. This is governed by various rules, regulations, and guidelines set by different ministries and departments.

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1. **Genetic Engineering Appraisal Committee (GEAC):** The committee reviews proposals related to the release of GM organisms and products into the environment, including experimental field trials.

2. **Environment Protection Act:** The GEAC or people authorized by it have the power to take punitive actions under the Environment Protection Act.

3. **Role of the Indian Council of Agriculture Research (ICAR):** The ICAR plays a crucial role in supervising the development of new GM varieties and hybrids. For example, the approval for GM mustard allows for the environmental release of two genetically engineered mustard varieties are under the supervision of the ICAR.

4. **Assessment of Risks:** The regulatory framework also requires the evaluation of potential risks to human health, animal health, and biodiversity. This involves rigorous testing under laboratory and field conditions to ensure the safety and efficacy of GM crops.

5. **Public Consultation:** In some cases, public consultation is also part of the process before a final decision is made about the commercialization of a GM crop. This allows stakeholders, including the public, to voice their concerns and opinions.

Read more: **Genetic Engineering Appraisal Committee approves commercial cultivation of genetically modified mustard yet again**

What are the arguments supporting the introduction of GM crops in India?

1. **Addressing food security:** One of the main arguments supporting the introduction of GM crops in India is the potential to enhance food security. With India's population continually growing, transgenic crops offer a promising solution to increase agricultural yield and meet the escalating food demand. Moreover, crops can even be engineered to be **more nutritious**, providing critical vitamins to populations that struggle to get specific nutrients needed for healthy living. Thus, GM crops can be used to address the problem of **Hidden Hunger** (Nutritional deficiency).

2. **Improved crop characteristics:** GM crops can be engineered to have desired traits such as drought resistance, pest resistance, and improved nutritional content. These modifications can lead to healthier, more resilient crops that are better suited to varying climatic conditions and can contribute to higher yields.

3. **Economic benefits for farmers:** Transgenic crops can provide economic advantages to farmers. The use of crops genetically engineered to resist pests, for instance, can reduce the need for expensive pesticides. The GEAC's recent approval of GM mustard is a prime example of this, with the potential to boost yield and subsequently increase farmers' income. For e.g. **Brinjal growers** in Haryana have rooted for Bt brinjal as it reduces the cost of production by cutting down on the use of pesticides.

4. **Potential environmental benefits:** By reducing the need for chemical pesticides and herbicides, transgenic crops may also help decrease environmental pollution. Furthermore, certain GM crops may require less water, contributing to more sustainable water use.

5. **Enhanced crop diversity:** Transgenic technology can facilitate the development of new crop varieties, enhancing agricultural biodiversity. This could offer farmers a greater choice of crops to cultivate, potentially leading to more diverse farming systems.

What are the arguments against the introduction of GM crops in India?

1. **Health concerns:** Some groups argue that the consumption of genetically modified crops could potentially lead to health issues. There are concerns about allergenicity, antibiotic resistance, and the overall safety of consuming foods derived from GMOs.

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2. **Impact on biodiversity:** Critics also argue that the introduction of transgenic crops could negatively impact biodiversity. There are concerns that the proliferation of GM crops could lead to the genetic contamination of wild relatives of the modified crops. The increased use of herbicide-resistant crops could harm non-target organisms and beneficial insects. GM technology could also allow the transfer of genes from one crop to another, creating "**super weeds**", which might be immune to common control methods.

3. **Potential socio-economic implications:** There are also socio-economic considerations. For instance, small farmers might face difficulties if they cannot afford the often higher-priced GM seeds, potentially exacerbating economic inequalities in rural communities.

4. **Dependence on multinational companies (MNCs):** Many GM seeds are patented by multinational corporations. Farmers using these seeds would be dependent on these companies for their supply, potentially leading to monopolistic practices and loss of control over their own agricultural practices. From an economic standpoint, this poses a risk to the long-term food security by creating dependence on a single or limited number of suppliers. If the supplier company failed, then the crop it provides would not be available to the people who depend on that crop.

5. **Questionable outcomes:** Various claims around stress tolerance, nutrition and yields have turned out to be false, including in India with its Bt cotton experience. Cotton yield has stagnated around 460 kgs per hectare in the recent past, despite most cotton being GM. The most impressive yield growth was achieved between 2000 and 2006 (from 278 kg to 521 kg/ ha) when GM cotton adoption was marginal. There has been no such yield increase thereafter.

6. **Increased use of chemicals:** On the other hand, increased illegal use of glyphosate is bringing its own problems. Though GM Cotton was supposed to be more resistant to pests, chemical usage (including pesticides) in India's cotton cultivation has actually increased. For e.g. cotton farmers in North India often face the challenge of pink bollworm infestation & white fly attack. It is noteworthy that 24 countries that are ahead of India in terms of cotton yields do not grow GM cotton.

7. **Ethical and cultural concerns:** The genetic modification of crops raises ethical questions like human intervention in nature, potential damage to environment, negative impact on traditional farming practices, excessive corporate dominance, potential harm to human health etc. These can be especially potent in countries like India with rich cultural and religious traditions tied to natural processes.

What should be the Way Forward?

1. **Enhanced research and development:** To address concerns related to transgenic crops, further research and development should be undertaken. This should focus on comprehensive risk assessment, long-term impact studies, and the development of techniques to prevent cross-contamination.

2. **Rigorous regulatory framework:** The regulatory framework for the approval and monitoring of transgenic crops in India needs to be rigorous. This can help ensure that only those GM crops that are safe for human health and the environment are permitted. Govt should again take up the proposed **Biotechnology Regulatory Authority of India Bill** to ensure a sturdy regulatory architecture in India. This encourages entry of competitors that could check monopolistic conditions in the GMO market.

3. **Capacity building in biotechnology:** India needs to enhance its capacity in the field of biotechnology. This involves training scientists in advanced techniques, and creating world-class laboratories that can undertake cutting-edge research in this field.

4. **Public awareness and engagement:** Transparent, evidence-based information on GM crops should be shared with the public to address concerns and misconceptions. This could involve engaging with communities through public consultations before the introduction of GM crops.

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5. **Protecting farmers' interests:** Policies should be in place to protect farmers from potential exploitation by multinational companies selling GM seeds. This includes ensuring farmers have access to a variety of seeds, including non-GM options.
6. **Monitoring environmental impact:** After the introduction, transgenic crops should be continuously monitored to assess their impact on biodiversity and ecosystems. In particular, the potential for gene flow to non-target species should be rigorously evaluated.
7. **International collaboration:** India can benefit from international collaboration in this field, learning from the experiences of other countries that have successfully adopted transgenic crops, and working together to address shared challenges.

CONCLUSION:

By resisting genetic engineering technologies, India risks falling behind the rest of the world where scientists are deploying gene editing tools to improve yields, disease resistance and shelf life of crops. However, any decision on introduction of GM technologies must be taken on the basis of scientific evidence. A participatory approach should be adopted in order to bring together all stakeholders to develop regulatory protocols. This would ensure trust in the entire process.

Sources: Indian Express, Wikipedia
Syllabus: GS Paper 3: Science and Technology: Awareness in the field of biotechnology, Agriculture

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Electoral Reforms In India- Explained Pointwise

Election Commission of India is conducting **Special Intensive Revision (SIR)** of the electoral rolls for the entire country – starting first from Bihar. This exercise in Bihar before the general elections for its Legislative Assembly is considered as an important electoral reform, but it has also been criticized by several members of civil society because it may lead to disenfranchisement of a significant number of people. In this context, we will try to discuss the broader topic of electoral reforms, their significance, objectives, challenges & way forward.

Elections lie at the very heart of Indian democracy. They not only sustain democracy but enliven it as well. Hence, holding of free and fair election is, therefore, a sine qua non of democracy. Various electoral reforms have been taken in India till date to ensure free and fair elections. However, Electoral reforms remains a work in progress.

What are ELECTORAL REFORMS? What Electoral Reforms have been taken in India?

- **Electoral reforms** refer to **improvements in the electoral system** to ensure **free, fair, transparent, and inclusive elections**. These reforms aim to address the **challenges and loopholes** in the existing electoral process.
- The Electoral Reforms seek to promote clean politics, free and fair elections, and ideal legislators.

Electoral Reforms have been undertaken in India since Independence. However the reforms can be sub divided under the following timelines:

Major Electoral Reforms Before 1996

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Introduction of EVMs (1982)	EVMs were introduced for the first time for conducting general election in Kerala in May 1982. In 2004, in the General Election to the Lok Sabha, the EVMs were used in all 543 Parliamentary Constituencies in the country.
Lowering of Voting Age (1988)	The Voting age was reduced from 21 years to 18 years by the 61st Constitutional Amendment Act of 1988, to encourage the youth to express their voice via vote.
Increase in the Number of Proposers (1988)	To prevent the non-serious candidates from contesting, the number of proposers were increased for filing nomination papers to the Rajya Sabha and State Legislative Council.
Anti-Booth capturing Provisions (1989)	A provision was made for the adjournment of polls or countermanding elections in case of booth capturing in 1989.
Elector's Photo Identity Card (EPIC) (1993)	Election Commission started issuing Elector's Photo Identity Card (EPIC) for registered voters.

Major electoral Reforms in 1996 on the recommendations of Dinesh Goswami Committee:

Listing of names of candidates	Candidates wanting to contest elections were further divided three categories: a. Political party b. Registered and Un-registered Party c. Independent Candidates
Disqualification under Prevention of Insults to the National Honour Act	A person convicted for the offenses under the Prevention of Insults to National Honour Act of 1971 is disqualified to contest in the elections to the Parliament and State Legislature for 6 years.
Increase in the number of proposers	The nomination of a candidate in a Parliamentary or assembly constituency should be subscribed by 10 registered electors of the constituency as proposers if the candidate is not sponsored by a recognized political party.

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Contestants restricted to two constituencies	A candidate would not be eligible to contest from more than two Parliamentary/assembly constituencies and Rajya sabha/State legislative council.
By-Elections	By-Elections were to be held in six months since the vacancy.
Introduction of strict prohibitions	Strict prohibition on Arms and Sale of liquor near polling area.

Major Electoral Reforms after 1996:

Increase in the number of proposers and seconders (1997)	Number of Proposers and Seconders for contesting Election to President and Vice president were changed accordingly: a. President: From 10 to 50 b. Vice President: From 5 to 20
Postal Ballot (1999)	Provision was made for voting through Postal Ballot in 1999 under circumstances by the permission of Election Commission for any class persons.

Electoral Reforms in 2003:

Introduction of proxy voting	A provision was made for voters from Armed forces to opt their vote through proxy.
Declaration of criminal antecedents & assets	The Election Commission issued an order directing every candidate to disclose the information on the matters of conviction, accusation, assets, and any liabilities.
Free supply of electoral rolls and travel exemptions	Election Commission passed a provision for free supply of electoral rolls and exemptions were made in travelling expenses made by Candidates.
Parties entitled to accept contribution	The political parties had to report any contribution in excess of ₹20,000 to the Election Commission for claiming income tax relief.

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Allocation of time on media	Allocation for sharing of time on media and cable to each candidate was made by Election Commission. Introduction of Braille Signage features in EVM.

Electoral Reforms Since 2003 Till Today:

Prohibition on Exit Polls (2009)	Prohibition were imposed on conducting Exit Polls and publishing the results of exit polls.
Time limit for submitting a case for disqualification (2009)	A three-month time limit was added within which the specified authority will have to submit the case of a person found guilty of corrupt practice to the President to determine the question of disqualification.
Increase in Security Deposit (2009)	The amount of security deposit to be paid by the candidates contesting elections to the Lok Sabha was increased from ₹10,000 to ₹25,000.
Registration of Indian Citizen living outside India (2010)	Every Indian Citizen living outside India is entitled to get his name registered in the Parliamentary or Assembly near the place of residence mentioned in his/her passport and are entitled to receive their voting rights.

Electoral Reforms in 2013:

Electoral roll Online	Election Commission made the provision for Online filling of the application form in the electoral roll.
Addition of NOTA option in the EVMs	Apex Court of India directed election commission to add NOTA (None of the above) option in EVMs.
Introduction of VVPAT	Election Commission introduced VVPAT (Voter Verifiable Paper Audit Trail) for verification of voters vote.
Allowing persons in jail or police custody to contest elections	The Representation of the People Act, 1951 was amended in 2013 to allow the persons in jail or police custody to contest elections.

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Immediate disqualification of convicted MPs and MLAs	Supreme Court, in **Lily Thomas Case (2013)**, held that convicted MPs and MLAs will be immediately disqualified from holding membership of the House without being given three months' time for appeal.

Electoral Reforms after 2013:

Increase in election expenditure 2013	Government raised the maximum ceiling on election expenditure of Lok Sabha from Rs.40,00,000 to Rs.70,00,000. In bigger states assembly seats was increased from Rs.16,00,000 to Rs.28,00,000
Pictures of candidates on EVMs 2015	Election Commission passed the order that EVM will carry the picture / photo of candidate, his/her name and symbol of the party to avoid the confusion amongst the common people.
Electoral Bonds 2017	**Ceiling on cash donations lowered:** The limit for anonymous cash donations by any individual to a political party was lowered from ₹20,000 to ₹2,000.

Cap on corporate contributions lifted: The limit on corporate contributions from 7.5% of the net profit of a company's past three financial years was removed. |
| **Special Intensive Revision of Electoral Rolls (2025)** | Special Intensive Revision (SIR) of Electoral Rolls is a significant exercise undertaken by the Election Commission of India (ECI) to ensure the accuracy and integrity of voter lists. It has been done to eliminate the duplicate entries in the electoral rolls due to urbanisation & migration. The electors have to submit certain documents for establishing the date & place of birth for themselves & their parent(s) if required. |

What are the CHALLENGES faced in conduction of free and fair elections in India?

1. **Booth Capturing:** Even in new era and world of developments, there are reported incidents of violence and intimidation of voters at the booth. **For ex-** Violence at polling booths in Bengal Panchayati Elections.
2. **Criminalisation of Politics:** Despite the EC's measures regarding the disclosure of criminal records, the parties have not refrained from giving tickets to candidates having serious criminal antecedents. **For ex-** About 40% of sitting MPs have criminal cases registered against them out of which 25% have declared serious criminal cases under charges of murder.
3. **Violation of Model Code of Conduct:** The elections in India witness violations of the model code of conduct by the candidates and the political parties. **For ex-** Illegal use of public places, loudspeakers, money for votes etc.
4. **Electoral Finance:** Electoral finance has always been an Achilles heel problem for elections in India. Laundered and Black money are major sources of electoral finance. **For ex-** SC recently stuck down Electoral bond scheme on the issue of lack of transparency in funding.

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5. **Electoral Overspending:** The political parties have no expenditure limit in the elections. This is exploited by the candidates for over expenditure in their constituencies during the election. **For ex-** Star campaigners expenditure is not included in candidate's expenditure.

6. **Use of casteism and communalism card:** The elections in India witness the card of casteism, communalism and regionalism played by the political parties to garner votes. These lead to social fragmentation of the electorate. **For ex-** Use of Hate Speech in elections.

Read More- Electoral Bonds Scheme

What are the OBJECTIVES of Electoral Reforms?

1. **Ensuring free and fair elections (Article 324):** Electoral reforms aim to address the issues of electoral malpractices and ensure that elections are conducted in a free and fair manner.

2. **Enhancing voter participation:** Electoral reforms aim to increase voter turnout and to address the issue of voter apathy, difficulty in accessing polling booths, etc.

3. **Reducing the influence of money and muscle power:** Electoral reforms help to reduce the influence of money and muscle power by regulating campaign finance and ensuring the safety of voters.

4. **Encouraging transparency and accountability:** Electoral reforms initiate the measures such as mandatory disclosure of criminal records by candidates and the use of technology to monitor the electoral process. Thus they help in enhancing the transparency and accountability of elections in India.

5. **Addressing electoral inequalities:** Electoral reforms aim to bring down the inequalities such as the under-representation of women and marginalized communities.

What should be the WAY FORWARD?

Implementation of the Electoral Reforms suggested by the EC which are provided below will help in addressing the issue of electoral malpractices and conduction of free and fair elections-

1. **One Candidate, One Constituency:** The Representation of People's Act must be amended to provide that a person cannot contest from more than one constituency at a time.

2. **Lifetime Ban on contesting elections after conviction:** Election commission has endorsed the call for a lifetime ban which would 'champion the cause of decriminalization of politics'.

3. **Ban on advertisements six months prior to election:** Advertisements of achievements of the governments, either Central or State, should be prohibited for a period of six months prior to the date of expiry of the term of the House.

4. **False Declarations:** Election Commission proposes that making false declarations concerning elections be an offense under RPA.

5. **Rules making under RPA to be conferred to the EC:** Rule-making authority under the Representation of the People Act, 1950, and Representation of the People Act, 1951, should be conferred on the Election Commission instead of the Central Government.

6. **Use of common Electoral Rolls:** There should be the use of common electoral rolls at elections conducted by the Election Commission and the State Election Commissions.

7. **Disqualification under anti-defection law:** The decisions relating to anti-defection matters should be rendered by the President or the Governor with the recommendation of the Election Commission.

8. **Explore setting up of National Electoral Fund:** The idea of National Electoral Fund, put forth by former chief election commissioner T.S. Krishnamurthy, can be explored as an alternative to state funding of election. This fund would allow contributions from all donors. The money will then go to

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the parties according to the results of the elections or any other principle that all parties would agree upon.

CONCLUSION:

Electoral reforms are **essential to strengthen Indian democracy.** Ongoing discussions and proposals for future reforms should continue to focus on: electoral funding transparency, stricter disqualification norms for candidates with criminal charges, stronger powers for the ECI, and ensuring the accessibility and purity of electoral rolls without disenfranchising genuine voters.

> **Read More: The Hindu**
> **UPSC Syllabus- GS Paper 2- Issues related to elections and the RPA**

BRICS – Significance & Challenges – Explained Pointwise

The 17th BRICS Summit has recently been held in Rio de Janeiro, Brasil. India sees BRICS as a vital platform for bringing inclusive multilateralism especially when the global institutions are facing a crisis of legitimacy & representation. Thus, it is important for us to examine the significance of the group & the challenges that it is facing presently.

What is BRICS?

- BRICS is an intergovernmental organization comprising ten countries – **Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran & the United Arab Emirates**.
- The term BRIC was originally coined by Jim O'Neil in 2001 to designate the group of emerging markets.
- The first summit took place in 2009 featured the founding countries of **Brazil, Russia, India, and China**, where they adopted the acronym BRIC and formed an informal diplomatic club where their governments could meet annually at formal summits and coordinate multilateral policies. In 2010, South Africa was admitted & the organisation adopted the name BRICS.
- The acronym **BRICS+** has been informally used to reflect new membership since 2024.

Origin & Evolution:

2001	Coined as "BRIC" by economist Jim O'Neill (Goldman Sachs) to describe emerging markets.
2009	First formal **BRIC summit** in Russia.
2010	**South Africa** joins → BRIC becomes **BRICS**.
2024	**Iran, Egypt, Ethiopia, and the United Arab Emirates** attended their first summit as member states in 2024 in Russia.

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| 2025 | **Indonesia** officially joined as a member state, becoming the first Southeast Asian member. |

What are the OBJECTIVES of BRICS?

1. **Promote Economic Growth and Development:** Foster economic cooperation, trade, and investment opportunities among member countries.

2. **Reform Global Governance:** BRICS act as a pressure group for a more inclusive, equitable, and representative multipolar international system. This includes pushing for reforms in international financial institutions like the World Bank and IMF, and the United Nations Security Council, to better reflect the interests of emerging economies and developing countries.

3. **Strengthen Global South Cooperation:** BRICS provides a platform for emerging markets and developing countries (also known as **Global South**) to assert their influence on the international stage and address common challenges like climate finance, sustainable development, and access to technology.

4. **Reduce Reliance on Western Institutions and Currencies:** Explore alternative mechanisms for trade and finance, including increasing trade in local currencies and developing their own financial institutions, to reduce dependence on the U.S. dollar and Western-dominated financial systems.

5. **Address Global Challenges:** Collaborate on global issues such as climate change, counter-terrorism, food security, energy security, and sustainable development.

What are the KEY INITIATIVES of BRICS?

1. **Alternative financial systems:**
   a. **New Development Bank (NDB)** offers an alternative to Western-led institutions like the World Bank.
   b. **Contingent Reserve Arrangement (CRA)** offers financial safety net to members in currency crises & provides an alternative to IMF.
   c. **Promoting Trade in Local Currencies and De-dollarization:** A proposal to introduce BRICS-PAY which aims to create a shared cross-border payment platform that would link national fast-payment networks and potentially support central bank digital currency (CBDC) transfers, facilitating seamless and potentially dollar-free transactions among members.

2. **BRICS Anti-Terrorism Strategy:** Members cooperate on counter-terrorism efforts, including intelligence sharing, capacity building, and preventing the financing of terrorism.

3. **BRICS Initiative on Denial of Safe Haven to Corruption:** Aims to improve anti-corruption cooperation and build anti-corruption capabilities through training and education.

4. **BRICS Partnership for the Elimination of Socially Determined Diseases:** A recent initiative aimed at addressing health challenges disproportionately affecting vulnerable populations.

5. **Unilateral Economic Sanctions:** BRICS openly condemned such sanctions.

What is the SIGNIFICANCE of BRICS?

1. **Economic Influence:** Prior to Indonesia's membership, BRICS represented **35% of global GDP** and **46% of the world's population** and is projected to contribute 58% of world GDP growth from 2024 to 2029, outpacing the G7. With new members like Iran, UAE, and potentially Saudi Arabia, BRICS controls about 44% of global crude oil production, greatly influencing global energy security and supply chains.

2. **Reforming Global Governance:** BRICS provides a platform for emerging economies to push for reforms in global institutions such as the UN Security Council, IMF, and World Bank, aiming for a more

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equitable and representative international order. The group acts as a counterweight to Western-dominated forums like the G7, offering an alternative voice for the Global South and challenging existing power structures.

3. **Platform for Global South (South-South Cooperation):** BRICS has expanded to include more countries from Africa, the Middle East, and Asia, amplifying the voice of developing nations in global affairs and addressing issues like inequality and under-representation in institutions like UNSC.

4. **Alternative International Financial Institutions:** The creation of institutions like the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) provides alternative financial mechanisms for development and stability, reducing reliance on Western-dominated bodies and the US dollar.

5. **Addressing Global Challenges:** BRICS provides a forum for members to coordinate positions on critical global and regional security issues, including counter-terrorism, cybersecurity, and peace and stability in various conflict zones. For e.g. 2025 BRICS Summit criticized Pahalgam Terrorist Attack, as well as, bombing of Iran's nuclear sites by USA.

What are the CHALLENGES faced by BRICS?

1. **Diverse Political Systems and Ideologies:** BRICS comprises a mix of democracies (India, Brazil, South Africa, potentially Indonesia, Egypt) and authoritarian states (China, Russia, Iran). This fundamental difference in political systems can lead to divergent approaches on human rights, governance, and international norms, making it challenging to forge a unified stance on all geopolitical issues.

2. **China's Dominance:** China's economy is significantly larger than all other BRICS members combined, creating an imbalance. There are concerns among other members, particularly India, about Beijing's overwhelming influence and its "predatory" economic practices or debt diplomacy.

3. **Varying Economic Structures:** Members have different economic structures (e.g. **commodity exporters** like Russia, Brazil, Saudi Arabia, UAE; **manufacturing hubs** like China; **service and IT hubs** like India). This can lead to conflicting trade interests and priorities.

4. **Intra-BRICS Trade Imbalances:** While promoting intra-BRICS trade is a goal, significant trade imbalances exist, especially with China.

5. **Bilateral Tensions Among Members:** The ongoing border disputes and geopolitical rivalry between India and China are a major underlying tension. The recent expansion has brought in countries with existing regional rivalries (e.g. **Saudi Arabia vs. Iran**, **Egypt vs. Ethiopia** over the Nile River). Managing these tensions while fostering cooperation will be a delicate balancing act.

6. **"Asian NATO" Label:** Western nations, particularly the US, often view BRICS (and especially its expansion) as an attempt to form an "anti-Western" or "anti-American" bloc, akin to an "Asian NATO." This narrative can lead to increased geopolitical tensions.

7. **Tariff Threats and Economic Coercion:** Recently the US President Donald Trump's threatened the BRICS countries to impose tariffs & other economic sanctions if they are perceived to be aligning against Western interests or undermining the US dollar.

8. **Informal Structure:** BRICS operates as an informal grouping without a binding treaty or a permanent secretariat (beyond the NDB). While this allows flexibility, it can also lead to a lack of institutional coherence and consistent implementation of decisions.

What can be the WAY FORWARD?

1. **Focus on Shared Economic and Development Goals:** While political ideologies differ, members generally agree on the need for economic development, poverty alleviation, and sustainable growth.

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Prioritizing cooperation on these tangible goals (e.g. green infrastructure, digital transformation, food security) can build trust and common ground.

2. **Fairer Intra-BRICS Trade:** Develop mechanisms to address trade imbalances, particularly with China. This could involve promoting diversification of imports/exports among members, encouraging joint ventures, and investing in less developed BRICS economies.

3. **Strengthening the NDB's Role:** The New Development Bank (NDB) must continue to expand its lending in local currencies and prioritize projects that benefit all members, especially the smaller and newer ones, thereby fostering a sense of shared economic benefit and reducing dependence on any single dominant economy within the bloc.

4. **Formalizing Decision-Making:** While maintaining its informal nature, BRICS could explore mechanisms to streamline decision-making and ensure commitments are followed through. This could involve a small, dedicated secretariat for coordination beyond annual summits.

5. **Strategic De-dollarization:** BRICS countries can move towards de-dollarization by introducing certain steps in incremental manner:

    a. **Expand Bilateral Trade in Local Currencies:** Continue to promote and expand bilateral trade settlement in national currencies among members.

    b. **Develop BRICS PAY:** Accelerate the development and implementation of the BRICS PAY system and other digital payment platforms to facilitate efficient cross-border transactions in local currencies.

    c. **NDB Lending in Local Currencies:** The NDB should continue to prioritize and expand its lending in local currencies, providing a significant boost to their internationalization.

    d. **Explore Basket of Currencies (like R5):** The idea of a unit of account based on a basket of BRICS currencies (like the proposed "R5") could be explored as a precursor to a common currency, serving as a reference point for trade and a potential store of value.

CONCLUSION:

BRICS is an important institution to challenge the **western dominated forums** & for providing an alternative idea of global governance. By systematically addressing the challenges that it is facing through cooperation, institutional strengthening, and strategic positioning, BRICS can solidify its role as a significant and constructive force in shaping a more inclusive and multipolar global order.

> **Read More:** The Indian Express, Wikipedia
> **UPSC GS-2:** International Relations

Great Nicobar Island Development Project- Significance & Challenges – Explained Pointwise

The rapid enhancement of China's navy in Bay of Bengal has greatly increased the strategic importance of the region. It has led to massive infrastructure push by India in the region especially with the launching of Great Nicobar Island Development Project in 2021. However, the region is ecologically sensitive and hence civil society activists wildlife conservationists have alleged that the infrastructure upgrade will harm not only the region's coral reefs & marine ecosystems but as well as the indigenous communities, including the largely uncontacted Shompen tribe. Recently, a High-Powered Committee, established on the direction of NGT, submitted its report, concluding that the environmental clearances given by the Ministry to the project adhered to the statutory provisions. The Great Nicobar Island Development Project is of critical importance for defence, logistics, commerce &

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industries, and eco-tourism. Hence, these benefits and the risks associated with the project needs to be comprehensively evaluated.
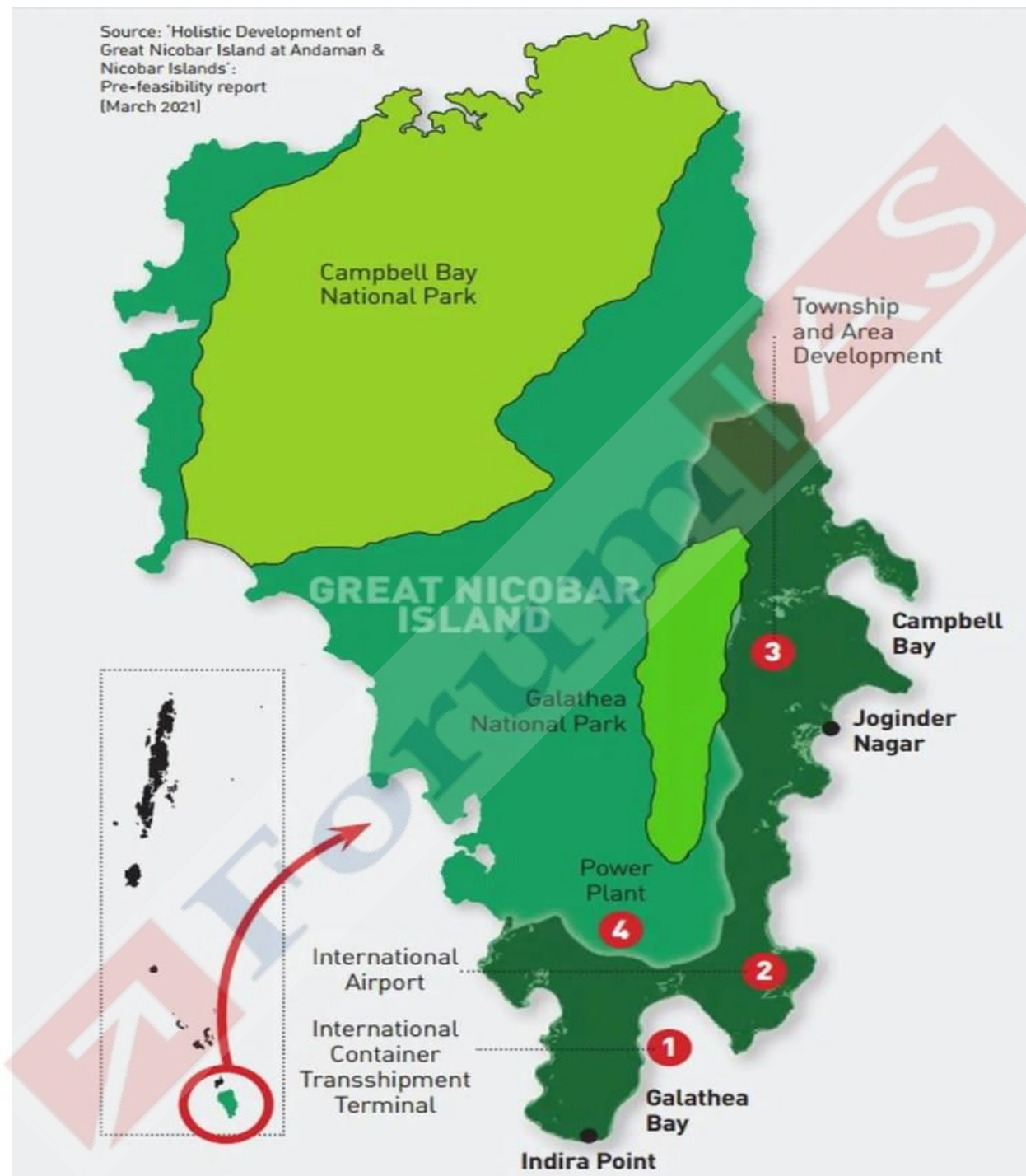
Source: The Hindu

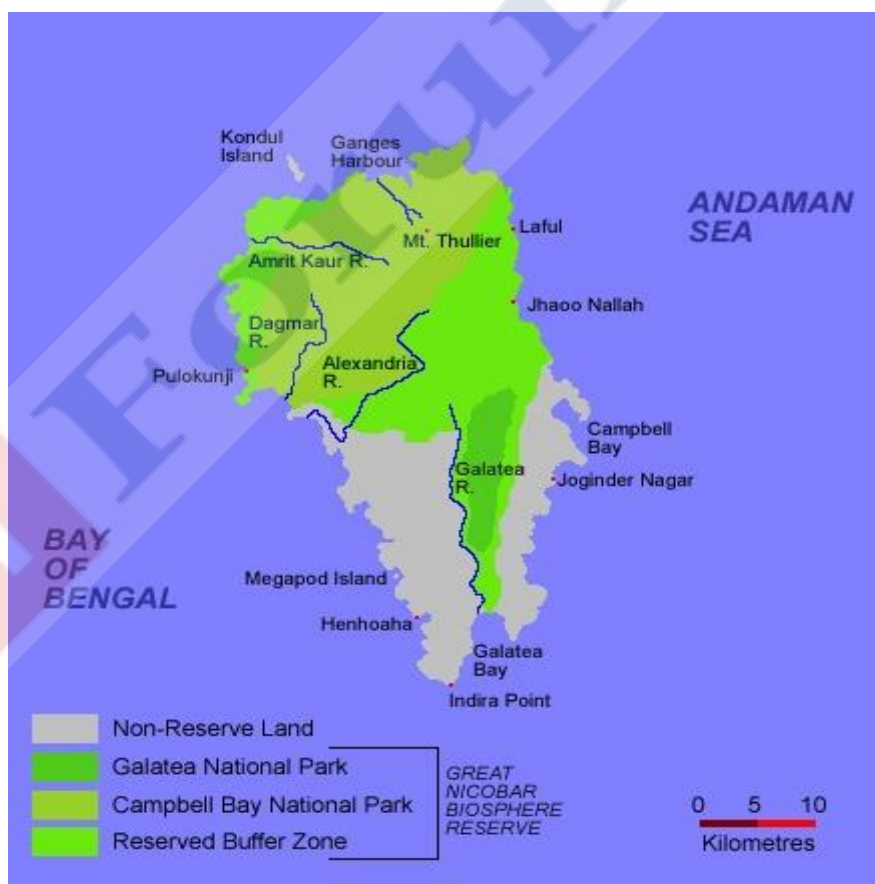**What is the Great Nicobar Island Development Project?**

- **The Great Nicobar Island Development Project:** The project involves a comprehensive Rs 72,000-crore infrastructure upgrade on Great Nicobar Island. It is being implemented by the Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO).

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- The project covers 16,610 hectares and aims to leverage the island's strategic location near the Malacca Strait.
- The Great Nicobar Island Development project includes development of following:
    1. An International Container Transshipment Terminal (ICTT)
    2. A greenfield international airport
    3. Two greenfield cities
    4. A coastal mass rapid transport system
    5. A free trade zone
    6. International cruise terminal (New addition)
    7. A ship breaking yard (New addition)

Geography of the Great Nicobar Island:

- The island of Great Nicobar is the southernmost tip of India and a part of the Andaman and Nicobar archipelago that comprises 600-odd islands.
- It is hilly and covered with lush rainforests. It receives around 3,500 mm of annual rainfall.
- The rainforests and beaches host numerous endangered and endemic species including the giant leatherback turtle, the Nicobar megapode, the Great Nicobar crake, the Nicobar crab-eating macaque, and the Nicobar tree shrew. It has an area of 910 sq km with mangroves and Pandan forests along its coast.

Source: Wikipedia

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Read More- Importance of Andaman and Nicobar Islands- Explained Pointwise

What is the significance of Great Nicobar Island Development Project?

1. Geo-strategic benefit: Great Nicobar Island is located close to the Malacca Strait, which is the main waterway connecting the Indian Ocean to the Pacific. The Great Nicobar Island Project aims to take advantage of this strategic position to enhance India's role in the regional and global maritime economy.

2. Geo-Security Concerns: The Bay of Bengal and Indian Ocean region are vital for India's strategic and security interests, especially with the Chinese naval expansion. The project will strengthen India's maritime security and deterrence capabilities.

3. Upgradation of military infrastructure: The Great Nicobar project also helps in the upgradation of military infrastructure by the establishment of airfields, jetties, and surveillance facilities.

4. Economic Boost: The project includes an International Container Transshipment Terminal (ICTT), which can make Great Nicobar a significant player in cargo trans shipment. The ICTT is expected to boost economic activities in the region.

5. Creation of Job opportunities for locals: The Nicobar plan involves the creation of infrastructure (ports, airports etc.). This will help in creation of job opportunities for the locals.

6. Tourism Development: It helps in creation of tourism prospects in the region. This will aid the income generation in the region. The per capita income in Andaman & Nicobar Islands for the year 2015-16 was Rs. 1,24,361. This was much lower than the per-capita income of other Union Territories (Chandigarh, Delhi, and Puducherry.)

7. Social Benefits: The Project would help in the creation of affordable state-of-the-art facilities for healthcare, quality education, and adequate air, sea and web infrastructure. It will also facilitate the delivery of e-governance services such as telemedicine and tele-education, as a part of the Digital India initiative.

What are the associated concerns with the project?

1. Threat to biodiversity: Nearly a million trees could be felled as part of the project. This could potentially devastate the island's ecosystem, including coral reefs, the Nicobar Megapode bird, and leatherback turtles. The compensatory afforestation is being planned in Haryana.

2. Threat to rights of Indigenous Tribes: The proposed Nicobar project endangers the rights of the Shompen and Nicobarese tribes, living on the island. It also violates the letter and spirit of the Forest Rights Act (2006), which holds the Shompen as the sole legally empowered authority to protect, preserve, regulate and manage the tribal reserve.

3. Seismic Vulnerability: The proposed port which is an integral part of this project, is located in a seismically volatile zone, which experienced permanent subsidence of around 15 feet during the 2004 tsunami. This raises concerns about the safety and viability of constructing such a large-scale infrastructure project in a high-risk, disaster-prone area.

4. Lack of Adequate Consultation: The project has been pushed through without adequate deliberations of all the stakeholders like the The Tribal Council. The National Green Tribunal's high-powered committee's report reviewing the environmental clearances has also not been made public.

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5. Undermining international obligations: The Galathea Bay Wildlife Sanctuary located in the Great Nicobar Island forms part of a UNESCO World Heritage Site. Hence the preservation of this pristine biodiversity is an International Obligation of India.

6. Lack of adequate Social Impact Assessment: The Campbell Bay panchayat has raised concerns regarding the lack of adequate social impact assessment before land acquisition. **For ex-** Increased contact with outsiders, will increase the risks of Shompen tribe to diseases for which their immunity is not developed.

7. Economic unviability: The aspiration to replicate Singapore/Hong Kong duty-free ports/free trade zones on remote Great Nicobar Island (2,000 km from Chennai and Kolkata) without a hinterland, resources or industrial backup makes it economically unviable and unrealistic.

What should be the Way Forward?

We must aim to address the trilemma of infrastructure development, preserving pristine biodiversity respect and being sensitive to the rights of the indigenous inhabitants, and tribals. Following measures should be adopted to address the trilemma:

1. Due regards to tribal rights: The development work must be carried out with due regard to tribal rights. This should involve proper adherence to policies like the **Shompen Policy of 2015**. The Shompen Policy of 2015 calls for giving priority to tribal rights over large scale development proposals.

2. Separation of security and development capabilities: The security capabilities of Andaman and Nicobar Island need to be addressed separately. This must have no linkage with the developments contemplated for Great Nicobar Island.

3. Re-assessment of economic feasibility of the project- The project lies equidistant (1,300 km) from established transshipment hubs and bunkering ports of Singapore, Port Klang (Malaysia) and Hambantota (Sri Lanka). Hence the economic viability of yet another transshipment terminal in Great Nicobar Island needs to be reassessed, especially since India inaugurated its own transshipment terminal in Vizhinjam in Kerala.

4. Proper Social and Environmental Impact Assessment: Any construction under the Great Nicobar Development plan should involve a proper and detailed Environment Impact Assessment (as mandated by the Environment Protection Act 1986). This will make development more socially and environmentally feasible.

5. Eco-friendly Construction: The construction of infrastructure should be done using eco-friendly practices like strict adherence to GRIHA code for building construction.

6. Transparency in Data and Report- NITI Aayog and the agencies participating in planning should maintain transparency in data. The government should release the data on the rationale, the process of creation, consulted groups etc. in public domain. This will give a holistic view to critics and supporters.

7. Enhanced International Cooperation: India should enhance Cooperation with countries like Japan, South Korea etc. This will help in developing successful island development models.

8. Exploration of other Islands: Other islands in the the Nicobar group, apart from GNI, like Little Nicobar, Nancowry, Kamorta and Katchall can be explored. These could accommodate most components of such a project, without risking environmental, ecological and anthropological damage on large scale.

CONCLUSION:
India needs to achieve the Vision of *"Happy and prosperous islanders on ecologically-protected Islands"*. To achieve that, India needs to adopt development plans that are technically feasible, economically profitable, socially acceptable as well as transparent.

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Cat Bonds – Significance & Challenges – Explained Pointwise

The increased intensity & frequency as well as unpredictability of extreme weather events like cyclones, floods, forest fires, earthquake etc in the Indian subcontinent have increased India's exposure to disaster-risk. Given the scale of India's hazard risk profile, it is prudent to introduce certain financial instruments like Cat bonds i.e. the catastrophic bonds for disaster-risk reduction.

What are Cat Bonds?

- Cat bonds are unique hybrid-cum-debt financial product that transforms insurance cover into tradable security. These bonds transfer the hazard risk to the global financial markets through securitization. Thus, opening up a much larger quantum of funds for post-disaster relief & reconstruction.
- Cat bonds are effective in transferring predefined risks to bond investors, ensuring quicker payouts & greatly reduce the counter party risk.
- Cat bonds are created by sovereign nations & the government also sponsor the bond & pay the premium.
- These bonds are issued by the intermediaries on behalf of sponsors. These intermediaries can be the World Bank or the Asian Development Bank or a reinsurance company.
- These bonds carry a higher coupon rates as compared to regular deb instruments because when the disaster occurs, the investor runs the risk of losing a part of their principal.
- The coupon rate of cat bonds varies greatly depending upon the risk of disaster for e.g. earthquakes garner lower premiums as compared to hurricanes or cyclones.

What are the BENEFITS of Cat Bonds?

For SPONSORS (Governments)	**1. Access to Broader Capital:** Provides access to the vast global capital markets, offering a much larger pool of funds than traditional reinsurance alone.
	2. Diversification of Risk Capital: Diversifies the sources of capital for catastrophic risk, reducing reliance on a few large reinsurers.
	3. Multi-Year Coverage: Often provides coverage for multiple years, offering greater certainty and stability compared to annual reinsurance renewals.
	4. Reduced Counterparty Risk: The use of an SPV and fully collateralized funds minimizes the risk that the insurer will not receive the payout if a disaster occurs.
	5. Faster Payouts: Especially with parametric triggers, payouts can be much faster than traditional insurance claims, crucial for immediate disaster relief.
	6. Climate Resilience: Increasingly being explored by governments and entities to manage financial risks associated with climate change-driven extreme weather events.

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For INVESTORS	**1. High Yields:** Cat bonds typically offer attractive, relatively high interest rates compared to other fixed-income instruments. **2. Portfolio Diversification:** Their returns are largely uncorrelated with broader financial markets, making them excellent tools for portfolio diversification. **3. Social Impact:** Some investors appreciate the "feel-good" factor of contributing to disaster relief and recovery efforts.

What are the CHALLENGES of Cat Bonds?

1. **Basis Risk:** This is the most significant challenge. Basis risk occurs when there's a mismatch between the actual losses incurred by the sponsor and the payout received from the cat bond. This is particularly prevalent with non-indemnity triggers. For e.g. **Parametric Triggers:** A hurricane might meet the wind speed threshold, triggering a payout, but the sponsor's actual losses could be less than the bond's payout (over-recovery) or more (under-recovery). On the other hand, a severe event might cause significant losses to the sponsor, but if the pre-defined parameter (e.g. earthquake magnitude) isn't met, there's no payout.

2. **Perception of "Wasted Premium":** If a cat bond matures without a triggering event, the sponsor has paid premiums without receiving a payout. While this is the nature of any insurance, it can lead to a perception of "wasted money," especially for government entities that are publicly accountable for fiscal decisions.

3. **Difficulty in Covering "Secondary Perils":** While the market is evolving, most cat bonds historically covered primary perils like major hurricanes and earthquakes. It can be more challenging and expensive to structure bonds for "secondary perils" like floods, wildfires, or severe thunderstorms, which are becoming more frequent due to climate change.

4. **Complexity and Valuation:** Cat bonds are complex instruments whose value is driven by probabilities of rare events. This makes them difficult to value and understand for generalist investors, requiring specialized knowledge and reliance on catastrophe modeling firms.

5. **Model Risk:** Investors rely heavily on catastrophe models to assess the probability and potential severity of trigger events. There's a risk that these models might underestimate event probabilities or severity, leading to unexpected losses for investors. Climate change further complicates this, as historical data may not accurately predict future extreme weather patterns.

What can be the WAY FORWARD?

1. **Sovereign Cat Bonds:** Encourage more governments, especially in developing and highly vulnerable countries (like India and other South Asian nations), to utilize cat bonds for disaster risk financing. International bodies like the World Bank and ADB can continue to play a crucial role in facilitating these issuances, leveraging their expertise and credit standing.

2. **Regional Cat Bonds:** Promote the development of regional cat bonds (e.g., a "South Asian Cat Bond" for earthquakes or cyclones) that pool risks across multiple countries. This diversification can make the bonds more attractive to investors and potentially lower premiums for individual nations.

3. **ESG Integration:** Highlight the "Environmental, Social, and Governance" (ESG) aspects of cat bonds & encourage large corporations to explore cat bonds as they contribute to climate resilience and disaster relief.

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4. **Hybrid Triggers:** Develop more sophisticated "hybrid" triggers that combine elements of parametric, industry loss, and indemnity triggers. This can help reduce basis risk by providing a faster payout while still having some linkage to the sponsor's actual losses (indemnity).

5. **Micro-Parametric Triggers:** For specific, localized risks (e.g., urban flooding, localized landslides), developing very granular parametric triggers based on highly localized data (e.g., specific rain gauges, flood sensors) can improve precision and reduce basis risk.

6. **Advanced Catastrophe Modeling:** Continuously improve catastrophe models by incorporating climate change projections, better historical data, and advanced statistical techniques to more accurately predict event probabilities and potential losses. This reduces uncertainty for both sponsors and investors.

CONCLUSION:

Given India's size & financial stability, India could become the lead sponsor for South Asian Cat Bonds. A South Asian cat bond could spread the risk, reduce the premium cost & would make the region financially stronger to face disasters in future.

> **Read More: The Hindu, Wikipedia**
> **UPSC GS-3: Disaster Management**

Special Intensive Revision (SIR) of Electoral Rolls – Significance & Challenges – Explained Pointwise

ECI, using its discretionary powers under Section 21(3) of Representation of People Act, 1950, is conducting the Special Intensive Revision (SIR) of electoral rolls for the entire country, starting first from Bihar. This would be first such exercise in more than 2 decades (last took place in 2004). However, the exercise has also triggered several controversies with opposition political parties questioning the exercise. Thus, it is important to understand Why & by what process ECI carry out revision of electoral rolls & its significance along with the limitations that it has.

What is Special Intensive Revision?

- A **Special Intensive Revision (SIR)** is a focused, time-bound exercise conducted by the Election Commission of India (ECI) to update and verify the accuracy of electoral rolls.
- Electoral revisions are of 3 types:
  - **Summary Revision:** Annual revision of electoral rolls for routine maintenance + No door-to-door verification.
  - **Intensive Revision:** Major overhaul of electoral rolls + Includes door-to-door verification.
  - **Special Revision:** Undertaken in exceptional cases such as missed areas, large-scale errors, legal or political exigencies etc.
- Unlike routine summary revisions, which are annual and involve only minor updates, an intensive revision involves full, fresh preparation of electoral rolls through **house-to-house verification** by Booth Level Officers (BLOs) to ensure that:
  - All eligible citizens are included in the electoral rolls.
  - Ineligible or duplicate entries are removed.
  - The voter list is accurate, inclusive, and transparent.
- For the ongoing exercise, ECI has adopted a hybrid approach – combining the characteristics of intensive revision as well as summary revision. It has also introduced a new step – the requirement of

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documentary proof at the enumeration stage itself – which is a departure from past practice. The 'special' in this intensive revision in effect signals its methodological flexibility.

- Intensive revisions have been undertaken earlier **13 times** in **1952-56, 1957, 1961, 1965, 1966, 1983-84, 1987-89, 1992, 1993, 1995, 2002, 2003 & 2004.**

Key Features of SIR:

- **Hybrid Approach:** The ongoing SIR combines features of both intensive and summary revisions. It includes door-to-door field verification (like intensive revision) and also uses existing rolls for distributing enumeration forms (like summary revision).
- **Documentary Proof:** For the first time, even existing electors (enrolled after 2003) must provide documentary proof of date and/or place of birth during enumeration.
- **Legal Framework:** The ECI conducts SIR under **Article 324** of the Constitution and **Section 21** of the **Representation of the People Act, 1950**.
- The SIR began in Bihar ahead of the state assembly elections, marking the first such nationwide drive in over two decades. The exercise was prompted by rapid demographic changes, migration, and urbanisation that has happened in the country.

Why do we need the revision of electoral rolls?

1. **Ensuring Electoral Roll Purity and Accuracy:** SIR is the most effective method for identifying and deleting names of deceased persons, duplicate entries, and individuals who have permanently shifted residence from the electoral roll. This prevents fraudulent voting and ensures that only eligible citizens vote. It provides an opportunity to correct errors in names, addresses, age, and other details, leading to a more accurate and reliable voter list.

2. **Identifies Unenrolled Voters:** Through house-to-house enumeration, BLOs can identify eligible citizens who have turned 18, or who were previously missed, and assist them in registering. This is crucial for expanding the democratic franchise and ensuring universal adult suffrage.

3. **Addresses Demographic Shifts:** Given India's rapid urbanization and internal migration, SIR helps in updating the rolls to reflect demographic changes, ensuring that migrant populations are correctly enrolled in their new places of residence.

4. **Strengthening Public Trust in Elections:** A transparent and rigorously updated electoral roll builds confidence among voters, political parties, and the general public in the fairness and legitimacy of the election process. When the voter list is perceived as pure, it enhances trust in election results.

5. **Addressing Concerns from Political Parties:** Political parties often raise concerns about the integrity of electoral rolls, especially regarding the inclusion of illegal voters or exclusion of genuine ones. SIR is the ECI's most robust tool to address such concerns and ensure a level playing field.

6. **Legal and Constitutional Mandate:** The ECI's power to conduct such revisions is enshrined in the Constitution and the Representation of the People Act, 1950. Conducting SIR fulfills the ECI's constitutional mandate to ensure free and fair elections.

What are the challenges?

1. **Risk of Disenfranchisement of Genuine Voters:** This is by far the biggest challenge and source of controversy. SIRs, particularly the ongoing one in Bihar, often demand specific, sometimes old, documents to prove citizenship, date of birth, and ordinary residence (e.g., pre-1987 documents, parental birth certificates). Many vulnerable groups, including:

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a. **Marginalized Communities:** Such as Scheduled Castes (SCs), Scheduled Tribes (STs), and minorities (e.g., Muslims), who may historically lack formal birth records or land deeds.

b. **Migrant Workers:** Who frequently move for work and may not have stable residence proof or be present at their native village during the verification period.

c. **Poor and Illiterate Individuals:** Who may not understand the process or have the resources to obtain complex documents.

d. **Women:** Especially those who have migrated after marriage, who may face difficulties in producing parental documents or documents from their place of birth.

2. **Burden of Proof Shifted to Citizen:** Instead of the state being primarily responsible for ensuring all eligible voters are on the roll, the onus often shifts to the individual to prove their eligibility, which can be an overwhelming task for many.

3. **Exclusion of Common IDs:** The exclusion of widely used documents like Aadhaar, ration cards, or even existing Voter ID cards (EPICs) as primary proof for certain aspects of SIR (especially citizenship) creates a significant hurdle, as these are the most accessible documents for many.

4. **Logistical and Administrative Burden:**

a. **Massive Scale:** India's electorate is enormous. Conducting house-to-house surveys for millions of households is a monumental logistical task, requiring a vast number of Booth Level Officers (BLOs) and supervisory staff.

b. **Short Timelines:** SIRs are often conducted within relatively short, strict deadlines (e.g. 30 days for enumeration), which can be impractical, especially in large, densely populated, or remote areas, or during adverse weather conditions (like monsoon season in Bihar). This hurried process can lead to errors and omissions.

5. **Proximity to Elections:** When an SIR is conducted just months before an election (as in Bihar 2025), it immediately raises suspicions among opposition parties, who often allege that it's a politically motivated exercise aimed at manipulating the voter base or disenfranchising specific communities.

6. **Scope of ECI's Powers:** The debate often centers on whether the ECI, in the name of "purifying" rolls, oversteps its mandate by essentially conducting a de facto citizenship verification, which is primarily the domain of the Ministry of Home Affairs (MHA) under the Citizenship Act.

7. **Public Perception and Trust Deficit:** When the process is seen as exclusionary or politically motivated, it can erode public trust in the ECI's impartiality and the fairness of the electoral system itself.

What can be the Way forward?

1. **Acceptance of a wider range of documents:** While avoiding documents that don't prove citizenship (like Aadhaar for citizenship itself), the ECI should be more flexible and pragmatic in accepting a wider range of widely available documents for residency and identity verification. The Supreme Court's recent suggestion to consider Aadhaar, Voter ID, and ration cards for the Bihar SIR is a step in this direction for identification and residence proof, if not citizenship.

2. **"Local Inquiry" as a Primary Tool:** Empower Booth Level Officers (BLOs) and Electoral Registration Officers (EROs) to rely more heavily on robust local inquiry and community verification, especially for vulnerable populations who genuinely lack formal documents. This should be a primary method, not just a last resort. This is in line with the ECI's recent easing of rules for Bihar, allowing forms to be submitted without documents initially, followed by verification.

3. **Leveraging Technology for Data Integration and Cross-Verification:** Explore secure, anonymized, and privacy-compliant linkages with other government databases (e.g. Civil Registration System for birth/death data, National Population Register, social welfare schemes like ration cards, land records).

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This can significantly aid in identifying deceased voters, duplicates, and verifying residency without placing an undue burden on citizens for physical documents. Also, implement AI/ML tools to identify suspicious patterns in additions or deletions (e.g., bulk removals from a particular locality or demographic group) to flag potential malpractices for human review.

4. **Realistic Schedules:** The ECI should allocate more realistic and ample time for SIR exercises, especially in large states or those with high migration. Rushing the process (as seen in the Bihar SIR amid monsoons) significantly compromises accuracy and inclusivity.

5. **Proactive Communication and Public Awareness:** Set up accessible facilitation centers and special camps, especially in remote areas, for marginalized communities, persons with disabilities, and the elderly, to assist them with form submission and documentation.

Conclusion:

While SIR is intensive, it should be complemented by strong continuous updation mechanisms throughout the year, making the process less abrupt and reducing the need for drastic, potentially disruptive, intensive revisions. The focus of ECI must be towards enhancing the effectiveness and legitimacy of SIR, ensuring that electoral rolls are both pure and inclusive, thereby strengthening the democratic fabric of India.

Read More: The Indian Express
UPSC GS-2: Representation of People's Act

One Nation, One Election – Significance & Challenges – Explained Pointwise

Recently, 2 former CJIs, appearing before the Joint Committee of Parliament on One Nation, One Election, have said that the Bill to introduce simultaneous elections does not violate the basic structure constitution. However, they have also expressed the concern over the unbridled power granted to ECI without providing any oversight clause.

India's democratic framework thrives on the vibrancy of its electoral process, enabling citizens to actively shape governance at every level. Since independence, over 400 elections to the Lok Sabha and State Legislative Assemblies have showcased the Election Commission of India's commitment to fairness and transparency. However, the fragmented and frequent nature of elections has sparked discussions on the need for a more efficient system. This has led to the resurgence of interest in the concept of "One Nation, One Election."

What is Simultaneous Elections?

● Simultaneous elections, popularly known as "**One Nation, One Election**" (ONOE), refers to the idea of holding elections to the Lok Sabha & all State Legislative Assemblies together for the same constituency on the same day. This would allow voters to cast their ballots for both tiers of government on the same day in their constituencies, though voting could still occur in phases across the country.

● The concept of simultaneous elections is not a new idea in India. Following the adoption of the Constitution, elections to the Lok Sabha and all State Legislative Assemblies were conducted simultaneously from 1951 to 1967. The first general elections to the Lok Sabha and State Assemblies were held together in 1951-52, a practice that continued for three subsequent general elections in 1957, 1962, and 1967.

● However, this cycle of synchronised elections was disrupted in 1968 and 1969 due to the premature dissolution of some State Legislative Assemblies. The Fourth Lok Sabha was also dissolved prematurely in 1970, with fresh elections held in 1971. Unlike the First, Second, and Third Lok Sabha,

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which completed their full five-year terms, the Fifth Lok Sabha's term was extended until 1977 under Article 352 because of the declaration of Emergency. Since then, only a few Lok Sabha terms have lasted the full five years, such as the Eighth, Tenth, Fourteenth, and Fifteenth. Others, including the Sixth, Seventh, Ninth, Eleventh, Twelfth, and Thirteenth, were dissolved early.

- State Assemblies have faced similar disruptions over the years. Premature dissolutions and term extensions have become a recurring challenge. These developments have firmly disrupted the cycle of simultaneous elections, leading to the current pattern of staggered electoral schedules across the country.
- The idea of ONOE has been recommended by various committees & bodies from time to time such as:
  - **Law Commission of India** e.g. 170th Report (1999) & later **21st Law Commission (2018)** released a draft report advocating for simultaneous elections and proposing various options for synchronization, including necessary constitutional amendments..
  - **Department-related Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice:** In its **79th Report (2015)**, this committee also recommended methods for holding simultaneous elections in two phases.
  - **NITI Aayog:** In a 2017 paper, NITI Aayog, the government's policy think tank, advocated the idea of conducting simultaneous elections for effective governance.
  - **Election Commission of India (ECI):** The ECI itself has, on various occasions since 1983, expressed support for the idea of simultaneous elections.
  - **High-Level Committee on Simultaneous Elections in India (Kovind Committee):** This committee, chaired by former President **Ram Nath Kovind**, was constituted in September 2023. It submitted its comprehensive report in March 2024, providing a detailed roadmap and recommendations for implementing "One Nation, One Election." Its recommendations were accepted by the Union Cabinet in September 2024.

What is the significance of Simultaneous Elections?

1. **Promotes Consistency in Governance:** Due to the ongoing cycle of elections in various parts of the country, political parties, their leaders, legislators, and both State and Central Governments often focus their efforts on preparing for upcoming elections rather than prioritizing governance. The adoption of simultaneous elections would refocus the government's attention towards developmental activities and the implementation of policies aimed at promoting the welfare of the masses.

2. **Prevents Policy Paralysis:** The implementation of the Model Code of Conduct during elections disrupts routine administrative activities and developmental initiatives. This disruption not only hampers the progress of vital welfare schemes but also leads to governance uncertainty. Holding simultaneous elections would mitigate the prolonged enforcement of the MCC, thereby reducing policy paralysis and enabling continuous governance.

3. **Mitigates Resource Diversion:** The deployment of a substantial number of personnel for election duties, such as polling officials and civil servants, can lead to significant diversion of resources from their core responsibilities. With elections conducted simultaneously, the need for frequent deployment would diminish, allowing government officials and public institutions to focus more on their primary roles rather than election-related tasks.

4. **Preserves Regional Party Relevance:** Holding simultaneous elections does not undermine the role of regional parties. In fact, it encourages a more localized focus during elections, enabling regional parties to highlight their unique concerns and aspirations. This setup fosters a political environment where local issues are not overshadowed by national election campaigns, thus preserving the relevance of regional voices.

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5. **Enhances Political Opportunities:** Conducting elections simultaneously entails a more equitable allocation of political opportunities and responsibilities within political parties. Currently, it is not uncommon for certain leaders within a party to dominate the electoral landscape, contesting elections at multiple levels and monopolizing key positions. In the scenario of simultaneous elections, there arises greater scope for diversification and inclusivity among political workers representing various parties, allowing a wider range of leaders to emerge and contribute to the democratic process.

6. **Focus on Governance:** The ongoing cycle of elections across the country diverts attention from good governance. Political parties focus more on election-related activities to secure victories, leaving less time for development and essential governance. Synchronised elections would allow parties to dedicate their efforts to addressing the needs of the electorate, reducing instances of conflicts and aggressive campaigning.

7. **Reduced Financial Burden:** Conducting simultaneous elections could significantly cut down the financial costs associated with multiple election cycles. This model reduces the expenditure related to the deployment of resources like manpower, equipment, and security for each individual election. The economic benefits include a more efficient allocation of resources and better fiscal management, fostering a conducive environment for economic growth and investor confidence.

What are the challenges of Simultaneous Elections?

1. **Major Constitutional Overhaul:** Implementing ONOE requires amending several articles of the Indian Constitution, including Articles 83 (duration of Houses of Parliament), 85 (dissolution of Lok Sabha), 172 (duration of State Legislatures), 174 (sessions, prorogation and dissolution of State Legislatures), and potentially 356 (President's Rule).

2. **Impact on Federalism:** Critics argue that forcing State Assembly terms to align with the Lok Sabha's term (either by curtailing or extending them) goes against the spirit of federalism and the autonomy of States. States have their own unique political cycles and democratic mandates, and altering their terms without their full and willing consent is seen as an encroachment on their powers.

3. **Nationalization of Elections:** In a combined election, there's a strong possibility that national issues and the popularity of national leaders might overshadow regional and local concerns. Voters might simply vote for the same party at both the central and state levels, influenced by the national narrative.

4. **Disadvantage to Regional Parties:** Regional parties, which often thrive on local issues and leaders, could be significantly disadvantaged as they might struggle to compete with the resources and broad appeal of larger national parties in a simultaneous election environment. This could lead to a homogenization of political discourse.

5. **Reduced Accountability at State Level:** If State elections are always tied to national elections, the accountability of State governments to their electorates might be diluted, as their performance could be overshadowed by central government's achievements or failures.

6. **Scenario of Hung Assemblies/No-Confidence Motions:** A major challenge is what happens if a government (either at the Centre or in a state) falls prematurely due to a no-confidence motion, a hung assembly, or a split.

7. **Massive Scale of Operations:** Conducting elections for the entire country (Lok Sabha, all State Assemblies, and potentially local bodies) simultaneously would be an unprecedented logistical challenge. It would require:
   - **Enormous Number of EVMs and VVPATs:** Far more than currently available, requiring massive procurement, storage, and transport infrastructure.
   - **Vast Deployment of Personnel:** A huge number of polling officials, security forces, and administrative staff would be needed, diverting them from their regular duties on an unprecedented scale.

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What can be the way forward? (Kovind Committee's Recommendations)

1. **Phased Approach for Synchronization:**
   ○ **Phase 1: Lok Sabha and State Legislative Assemblies:** The committee recommended that elections to the Lok Sabha and all State Legislative Assemblies should be held simultaneously.
   ○ **Phase 2: Local Body Elections:** Within 100 days of the Lok Sabha and State Assembly elections, elections to Municipalities and Panchayats should be synchronized.

2. **Constitutional Amendments Required:** The committee identified the need for significant constitutional amendments to facilitate simultaneous elections. Key proposed amendments/insertions include:
   ○ **New Article 82A:** To be inserted into the Constitution to establish the process for transitioning to a system of simultaneous elections for Lok Sabha and State Assemblies. It would empower Parliament to make laws for the conduct of simultaneous elections.
   ○ **Amendments to Articles 83(4) and 172(4):** These articles, dealing with the duration of Houses of Parliament and State Legislatures, would be amended to ensure that any Lok Sabha or State Assembly elected to replace a dissolved one would serve only for the **remaining unexpired term** of the immediately preceding full term, not a fresh five-year term. This is crucial for maintaining synchronization.
   ○ **New Article 324A:** To empower Parliament to make laws to ensure that municipality and panchayat elections are held simultaneously with Lok Sabha and State Assemblies.
   ○ **Amendments to the Representation of the People Act, 1951:** Necessary changes to the RPA, 1951, to align electoral procedures with the simultaneous election framework.

3. **"Appointed Date" and Synchronization Cycle:** The President, through a notification issued on the first sitting of the Lok Sabha after a general election, would set an "Appointed Date." All state assemblies elected after this date would have their terms aligned to conclude at the end of the Lok Sabha's full five-year term, regardless of their own individual five-year period.

4. **Handling Hung Houses/No-Confidence Motions:**
   ○ In the event of a hung House, a no-confidence motion, or any other event leading to premature dissolution, fresh elections would be held.
   ○ However, the new Lok Sabha or State Assembly constituted after such fresh elections would serve **only for the unexpired term** of the immediately preceding full term of the House. This ensures that the overall cycle of simultaneous elections remains intact.
   ○ The report explicitly addresses the scenario where a government might fall prematurely, aiming to prevent the desynchronization that occurred historically.

5. **Logistical Preparedness:** The ECI should plan and estimate in advance, in consultation with SECs, for all logistical requirements. This includes the procurement of a large number of EVMs and VVPATs, deployment of adequate manpower, polling personnel, and security forces.

Conclusion:

The High-Level Committee on Simultaneous Elections, led by former President Ram Nath Kovind, has laid the groundwork for a transformative shift in India's electoral process. By aligning the election cycles of the Lok Sabha and State Legislative Assemblies, the committee's recommendations promise to address long-standing challenges associated with frequent elections, such as governance disruptions and resource wastage. The proposed phased approach to implementing simultaneous elections, along with constitutional amendments, could pave the way for a more efficient and stable electoral environment in India.

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Green Revolution – Significance & Challenges – Explained Pointwise

CIMMYT (International Maize and Wheat Improvement Center) – headquartered in Mexico – is a non-profit research-for-development organization that develops improved varieties of wheat and maize with the aim of contributing to food security. It was one of the pioneer institutions in the development of HYV crops that ushered in the Green Revolution in the world & helped India in fighting the problem of hunger & achieving food security.

However, the centre is recently in news because the USAID, which was its main funder, has been shutdown by the Trump administration. CIMMYT is now looking at India – one of its major beneficiary – as a potentially significant   benefactor.

In this regard, let us find out what the green revolution was & what were its significance & limitations.

What is Green Revolution?

- The **Green Revolution** was a period of **rapid agricultural transformation** in the mid-20th century that significantly increased **food grain production** (especially wheat and rice) in countries like India.
- It involved the widespread adoption and transfer of new agricultural technologies and practices to developing countries, primarily aimed at combating food shortages and famine.
- Green Revolution was driven by a combination of scientific advancements and policy changes such as:
    I.   High-Yielding Varieties (HYVs) of Seeds
    II. Increased use of chemical fertilizers
    III. Extensive irrigation facilities
    IV. Application of pesticides and herbicides
    V.   Mechanization of agriculture
    VI. Improved farming practices and management such as multiple cropping, better crop management techniques etc.
- Green Revolution in India was seeded by CIMMYT & IRRI (International Rice Research Institute).

What are the positive impacts of Green Revolution in India?

Social impact	1. **Attainment of Food Self-Sufficiency and Food Security:** Before the Green Revolution, India was heavily dependent on food imports, particularly from the US (under PL-480). This left the nation vulnerable to external pressures and food shortages. The Green Revolution transformed India from a food-deficient nation to one of the world's leading agricultural producers. 2. **Socio-Economic Development:** Improved agricultural incomes stimulated local economies, leading to better standards of living and development of rural infrastructure such as roads and storage facilities.

Economic impact	1. **Massive Increase in Agriculture Production & Productivity:** The introduction of High-Yielding Varieties (HYVs) of wheat (like Sonara 64 and Lerma Rojo) and rice (like IR8), coupled with increased use of fertilizers, irrigation, and pesticides, led to unprecedented increases in crop yields per hectare. Also, the shorter maturity period of HYVs allowed farmers to grow two or even three crops in a year on the same land, significantly increasing overall output. 2. **Increased Farmer Incomes:** Farmers, particularly those in the well-irrigated regions of Punjab, Haryana, and Western Uttar Pradesh who could afford the new inputs, experienced a substantial rise in their incomes. This allowed them to invest more in farming and improve their living standards. 3. **Shift to Commercial Farming:** The increased profitability encouraged a shift from subsistence farming to commercial farming, with farmers producing for the market rather than just for their own consumption. 4. **Stimulus to Allied Industries:** The demand for modern farm machinery (tractors, threshers, pump sets), chemical fertilizers, and pesticides boosted the growth of associated manufacturing industries. 5. **Strengthening of Agro-Based Industries:** The increased availability of raw materials from agriculture also spurred the growth of agro-processing and food-processing industries.

What are the negative impacts of Green Revolution in India?

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Environmental impacts	1. **Environmental Degradation:**
	   a. **Loss of Fertility:** The intensive monoculture (growing the same crop year after year) and heavy reliance on chemical fertilizers (like urea) have depleted essential micronutrients from the soil, leading to a decline in soil fertility. Farmers are forced to use even more fertilizers to maintain yields.
	   b. **Soil Salinization and Alkalinization:** Over-irrigation, especially with groundwater containing dissolved salts, has led to waterlogging and the accumulation of salts on the soil surface in many Green Revolution areas (e.g., Punjab, Haryana). This renders the land unproductive (known as "reh" or "kallar" problem).
	   c. **Soil Erosion:** Intensive cultivation, removal of crop residues, and heavy machinery can increase soil erosion.
	 2. **Water Depletion and Pollution:**
	   a. **Groundwater Depletion:** HYVs are water-intensive crops, leading to excessive pumping of groundwater for irrigation, especially through tube wells. This has caused a drastic decline in groundwater levels in states like Punjab and Haryana.
	   b. **Water Pollution:** Runoff from fields containing chemical fertilizers and pesticides contaminates surface water bodies (rivers, lakes, ponds) and percolates into groundwater. This leads to eutrophication (excessive nutrient enrichment causing algal blooms and oxygen depletion, harming aquatic life) and makes water unsafe for drinking and other uses.
	 3. **Loss of Biodiversity:** The focus on a few high-yielding varieties of wheat and rice led to the widespread replacement and abandonment of thousands of diverse traditional, local crop varieties (landraces). This significantly reduced agricultural genetic diversity, making crops more vulnerable to new pests and diseases.

Social impacts	1. **Increased Inequality:** The benefits of the Green Revolution largely accrued to larger farmers who had the capital to invest in HYV seeds, fertilizers, pesticides, irrigation facilities, and machinery. Small and marginal farmers often struggled to afford these inputs, leading to:
	
	   a. **Indebtedness:** Many small farmers took loans for inputs, and if crops failed or market prices were low, they fell into a debt trap, sometimes leading to suicides.
	
	   b. **Landlessness:** Some small farmers, unable to compete or manage debt, were forced to sell their land to larger, more prosperous farmers, increasing landlessness and the number of agricultural laborers.
	
	2. **Regional Disparities:** The Green Revolution was most successful in areas with assured irrigation and existing infrastructure (e.g., Punjab, Haryana, Western Uttar Pradesh). Other regions, particularly rain-fed or drier areas, did not benefit significantly, leading to increased inter-state and intra-state regional disparities in agricultural development and prosperity.
	
	3. **Rural-Urban Migration:** The decline in rural employment opportunities, coupled with the allure of urban jobs, led to increased migration from rural areas to cities.
	
	4. **Hidden Hunger (Nutritional deficiency):** The focus on calorie-rich wheat and rice led to a decline in the cultivation and consumption of other nutritious crops like millets, pulses, and traditional vegetables, potentially leading to micronutrient deficiencies in the diet.

What can be the way forward?

1. **Promoting Sustainable Agricultural Practices:**
   a. **Reduced Chemical Dependence:** Shifting away from excessive reliance on synthetic fertilizers and pesticides. This involves promoting the use of organic manures (farmyard manure, compost, vermicompost), bio-fertilizers, and bio-pesticides.
   b. **Integrated Nutrient Management (INM):** A balanced approach that combines organic and inorganic fertilizers based on soil testing and crop needs to maintain soil health and reduce chemical overuse.
   c. **Integrated Pest Management (IPM):** Utilizing a combination of biological, cultural, physical, and chemical methods (as a last resort) to control pests, minimizing the use of harmful pesticides. This includes encouraging natural predators, crop rotation, and resistant varieties.
2. **Precision Agriculture:**
   a. **Precision Irrigation:** Widespread adoption of water-saving irrigation technologies like drip irrigation and sprinkler systems, especially for water-intensive crops.
   b. **Soil Health Cards:** Scaling up the Soil Health Card scheme to provide every farmer with regular, precise information on their soil's nutrient status, enabling them to apply fertilizers judiciously and replenish deficient nutrients.
3. **Diversification of Cropping Systems:**
   a. **Shift from Monoculture:** Encouraging farmers to move away from the dominant rice-wheat cropping system in certain regions towards a more diverse range of crops.

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b. **Promotion of Pulses, Oilseeds, and Millets:** These crops are often less water-intensive, improve soil fertility (pulses fix nitrogen), and are nutritionally rich. Boosting their production can address nutritional security and reduce import dependence.

c. **Horticulture and High-Value Crops:** Promoting the cultivation of fruits, vegetables, flowers, and medicinal plants, which often fetch better market prices and can diversify farmer incomes.

4. **Strengthening Farmer Support Systems:**

a. **Farmer Producer Organizations (FPOs):** Promoting and strengthening FPOs to enable small and marginal farmers to collectively access inputs, technology, credit, and markets, reducing their reliance on middlemen.

b. **Post-Harvest Management:** Investing in robust post-harvest infrastructure, including cold storage, warehousing, and efficient transportation, to reduce food loss and enable farmers to get better prices.

c. **Credit and Financial Inclusion:** Ensuring timely and affordable credit for farmers, especially for adopting new sustainable technologies and diversifying crops.

5. **Research and Development:** Continued investment in agricultural research by institutions like ICAR and State Agricultural Universities (SAUs) to develop sustainable solutions, new crop varieties, and climate-smart technologies relevant to diverse agro-climatic zones. Recently, India has got the opportunity to increase its funding in international agriculture research institutions like CIMMYT – which will be significant – because India has a vital stake in the institution & having a greater say in its running will help India in developing new varieties which are tolerant to the effects of climate change.

Conclusion:

Its time to transform the green revolution into evergreen revolution by making agriculture more sustainable, resilient, inclusive & profitable for all farmers, while safeguarding the environment for future generation. This holistic approach is essential for long-term food and nutritional security.

Read More: **The Indian Express, Wikipedia**
UPSC GS-3: Agriculture

India-Europe Relationship – Significance & Challenges – Explained Pointwise

In a world increasingly marked by disorder & divergence due to rise in authoritarian regime on one hand & transactional viewpoint of the bilateral relations by the Trump administration, middle powers like India & Europe now seek to develop deeper integration with each other. They find the common cause in championing a multipolar order that is anchored in in international law, inclusive institutions & plural values. In this context, let us try to understand the significance & challenges of India-EU relationship & what can be the way forward to take this relationship to its desired potential.

What is the SIGNIFICANCE of India-EU relations?

1. **Major Trading Partner:** The EU has consistently been India's largest or a leading trading partner, with annual bilateral trade in goods nearing $137 billion in 2024-25. The EU is also India's number one export destination.

2. **Foreign Direct Investment (FDI):** The EU is a major investor in India, accounting for 17% of total FDI inflow, contributing to significant employment opportunities. Between 2015 & 2022, the FDI from EU to India grew by 70%, with France's investment alone increasing by >370%.

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3. **Shared Values:** Both India and the EU are the world's largest democracies and are committed to a rules-based international order, multilateralism, and shared values such as democracy, rule of law, and human rights. This forms a strong foundation for their strategic cooperation.

4. **Multipolar World Order:** Both entities see themselves as independent poles in a multipolar world, aiming to uphold global peace and stability. In a shifting global context marked by geopolitical uncertainty, both see each other as reliable, like-minded poles capable of upholding strategic autonomy and fostering stability in the Indo-Pacific and beyond.

5. **Free Trade Agreement (FTA) Negotiations:** Ongoing negotiations for a comprehensive FTA are expected to boost market access for Indian goods and services, facilitate investment, lower trade barriers, and further integrate India into European and global value chains. The FTA also aims to support resilient supply chains, digitalization, and sustainable trade.

6. **Climate and Clean Energy Leadership:** Both, India & EU, are committed to fighting climate change and promoting sustainable energy solutions. Cooperation in green hydrogen, solar energy, and energy efficiency supports India's ambitious renewable energy targets and decarbonization efforts.

7. **China Factor:** Both India and the EU view China's increased assertiveness—military, economic, and technological—as a central strategic challenge.

What are the CHALLENGES to the relationship?

1. **Stalled Free Trade Agreement (FTA) Negotiations:**
   a. **Regulatory Barriers & Divergences:** FTA talks have dragged on for over 15 years, with persistent differences on market access, tariff structures, and regulatory standards, especially around **intellectual property rights (IPR)**, services, and agriculture.
   b. **Non-Tariff Barriers:** The EU imposes strict **non-tariff barriers** related to labor, environment, and technical standards, which are difficult for Indian exporters to meet without costly adjustments.
   c. **Disagreements on Sensitive Sectors:** India resists opening up sectors such as dairy and wine to EU imports, while the EU seeks deeper tariff cuts, further complicating progress.
   d. Stricter EU **intellectual property rights (IPR)** norms conflict with India's focus on affordable generic pharmaceuticals.

2. **Carbon Border Adjustment Mechanism (CBAM):** The EU's unilateral climate policies, particularly **CBAM**, pose a major challenge for Indian exports in steel, cement, and other energy-intensive sectors.

3. **Technology Transfer and Digital Regulations:** While India seeks greater technology transfer, concerns over data privacy, digital sovereignty, and cybersecurity regulations (like the EU's GDPR) create hurdles for Indian businesses.

4. **Visa and Mobility Issues:** Indian students and professionals face strict **visa, work permit, and mobility regulations** in the EU, limiting people-to-people and business links.

5. **Defence and Strategic Divergences:** India's dependence on Russian defence systems limits deeper collaboration with Europe on advanced military technology for e.g. Despite projects like submarine collaborations with France and C-295 Aircraft with Spain, EU-India defense ties lag behind those with the US or Russia.

6. **Ukraine-Russia Conflict:** India's **neutral stance on Russia's invasion of Ukraine** contrasts with the EU's strong condemnation and support for sanctions. This has created strain and trust deficits, with the EU concerned about India's close ties with Russia.

7. **China Factor:**

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a. Despite concerns, both, India & EU, retains substantial economic links with China. China is the EU's largest trading partner, well ahead of India. India also maintains significant trade with China (China was India's largest source of imports in 2024).

b. **Different Threat Perceptions:** For India, China is a direct neighbor and military competitor, whereas for the EU, the China question is entwined with economic security and global standards, with Russia still representing a higher immediate security threat.

What have been the INITIATIVES to bolster the relationship?

1. **Free Trade Agreement (FTA) Negotiations:** Both sides have made the conclusion of a comprehensive, balanced, and mutually beneficial FTA the **centrepiece of their partnership**, targeting completion by the **end of 2025**. The FTA covers goods, services, investment protection, and geographical indications. It aims to boost market access, facilitate resilient supply chains, support digital and green transitions, and align with modern regulatory standards.

2. **Trade and Technology Council (TTC):** Launched in 2022, the TTC is a strategic coordination mechanism to address challenges at the nexus of trade, trusted technology, and security. It focuses on areas like digital transformation, green technologies, semiconductors, Artificial Intelligence (AI), and cybersecurity.

3. **High-Level Dialogue on Trade and Investment:** This ministerial-level dialogue provides political guidance to the bilateral trade and investment relationship, ensuring regular discussions and addressing market access issues and trade barriers.

4. **India-EU Strategic Partnership: A Roadmap to 2025:** Adopted in 2020, this roadmap guides joint action and aims to further strengthen the strategic partnership across various sectors, including trade, climate change, security, and sustainable development.

5. **Indo-Pacific Oceans Initiative (IPOI) and Maritime Security Strategy:** India has joined the EU's IPOI and Maritime Security Strategy, highlighting shared strategic priorities in maintaining a free, open, and inclusive Indo-Pacific. Joint naval exercises, such as those in the Gulf of Guinea and Gulf of Aden, further enhance maritime security cooperation.

6. **Clean Energy and Climate Partnership (CECP):** Established in 2016 and recently updated for its third phase (2025-2028), the CECP focuses on deeper cooperation in Green hydrogen, Offshore wind energy, Energy efficiency etc. India was an exclusive country partner at **European Hydrogen Week** in 2024, and the EU was a key partner at the International Conference on Green Hydrogen in Delhi in 2024.

7. **Research & Development Cooperation:** Agreements for R&D cooperation in peaceful uses of nuclear energy and India's associate membership in CERN (European Organisation for Nuclear Research) signify deepening scientific collaboration.

8. **India-EU Connectivity Partnership:** This partnership, launched in 2021, focuses on enhancing digital, energy, transport, and people-to-people connectivity. It aims to promote sustainable and resilient infrastructure development, aligning with the EU's Global Gateway strategy.

9. **India-Middle East-Europe Economic Corridor (IMEC):** While not exclusively an India-EU initiative, IMEC is a significant project that aims to strengthen connectivity between India and Europe via the Middle East, enhancing trade routes and energy security. The IMEC has the potential to become the modern age Silk Road linking geographies not only in trade, but also in enterprise, energy & innovation. It is an answer to the Indo-Pacific's demand for infrastructure that is transparent, sustainable & sovereign in spirit.

What can be the WAY FORWARD?

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1. **Accelerating FTA Negotiations with Flexibility:** Both sides need to adopt a flexible and pragmatic approach to finalize the FTA, addressing sensitive sectors gradually and enhancing regulatory alignment through mutual recognition agreements. This includes finding solutions for issues like market access, intellectual property rights, and sustainability standards.

2. **Enhancing Technology Cooperation:** Continued focus on establishing dedicated frameworks for technology transfer, ensuring balanced access, and strengthening collaboration in emerging technologies like AI, semiconductors, and cybersecurity. Facilitating data-sharing agreements that balance privacy protection with business innovation needs is also vital. Europe's leadership in deep tech, digital manufacturing & semiconductors dovetails with India's dynamism in software, digital public good (e.g. UPI) & scalable platform. Together, they can lead in clean energy innovation, biotechnology, ocean sustainability, food security & resilient healthcare systems.

3. **Addressing Climate and Energy Policy Concerns:** Developing a joint roadmap for implementing green energy solutions, aligning policies on renewable energy investments, and finding solutions for issues like the Carbon Border Adjustment Mechanism (CBAM) to prevent adverse impacts on Indian exports. Increased funding and technology-sharing for green hydrogen and carbon-neutral initiatives are also important.

4. **Deepening Security and Defence Cooperation:** Exploring opportunities for joint production of military equipment, enhancing maritime security in the Indo-Pacific, and strengthening cybersecurity and intelligence sharing. India's interest in joining projects under the EU's Permanent Structured Cooperation (PESCO) and negotiating a Security of Information Agreement (SoIA) further indicates this direction.

5. **Strengthening Multilateral Engagement:** Both India and the EU should continue to work together in multilateral forums like the UN, G20, and WTO to address global challenges and promote shared values, aiming to reform institutions to better reflect 21st-century realities.

6. **Human Mobility:** A comprehensive mobility agreement for students, scientists & scholars will enrich talent pools, ease Indian unemployment issue & fertilise bilateral innovation. In the age of ideas, cross-border thinkers are as valuable as cross-border capital.

CONCLUSION:

India & EU needs to harness the immense potential of their partnership by collaborating on critical & emerging technologies, build resilient supply chains & bolstering strategic & security cooperation. They need to promote mutual trust, shape global governance & champion the shared values of democracy, rule of law & multilateralism.

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